

DISCUSSION PAPER NO. 2

**Cotton Production, Exports
and Price: A Comparative
Analysis of India and USA**



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by

Rajan Sudesh Ratna

Professor

Centre for WTO Studies

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Written by

Professor Rajan Sudesh Ratna,
Centre for WTO Studies
rsratna@iift.ac.in & rsratna@nic.in

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Cotton Production, Exports and Price: A comparative analysis of India and USA¹

Background of the Study

In mid of 2009 a C4 delegation in Washington raised the issue of US subsidies on cotton. The delegation requested that the United States cut its subsidies by between \$500 million to \$1 billion, with cap on cotton supports in the "blue box" of temporary farm programs and commitment to shift no more than one-third of the current "amber" box payments to the "blue box" of farm payments. In its response USA explained that Africa's problems were not due to US - mostly decoupled - payment programs. It was stated that the cotton production in USA has been nearly halved over the past several years and consequently, farm payments are significantly lower than before as more and more cotton growers in the United States were shifting to more lucrative crops - such as corn and soybeans. It was indicated that a strong Euro and subsidized cotton programs and adoption of biotech cotton in other countries - primarily China and India - were impacting African production far more than the US cotton program.

Prepared by Professor Rajan Sudesh Ratna, Centre for WTO Studies, New Delhi (rsratna@iift.ac.in, rsratna@nic.in). The views expressed in this paper are purely personal and may not necessarily reflect the views of the Institution where he is working. (November 2009). Centre for WTO Studies is an independent and autonomous research institution sponsored by the Department of Commerce, Government of India, located at Indian Institute of Foreign Trade, New Delhi. (website: <http://wtocentre.iift.ac.in>)

It was also observed that African cotton producers' plight was not due to the trade-distorting subsidies of USA but was on account of:

- (i) India and China increasing their cotton production in defiance of market signals, and
- (ii) steady and rapid fall in world cotton demand, which, according to him, only the US industry was devoting resources to counter while India and China added to the forces for decline by producing large quantities of synthetic fibres and textiles.

It was portrayed that the US was also a fellow-sufferer like C 4 vis-à-vis China and India.

Scope of the Study

In view of the above background, the present study tries to examine the following issues:

- (i) How much cotton was being produced in USA and India? What percentages of their produce were exported?
- (ii) Has the production of cotton in USA really halved over the years?
- (iii) What are the farm gate prices of cotton in USA and India?
- (iv) What is USA's share in world cotton exports? What is the share of India?
- (v) At what price USA and India are exporting to the world market? Has their share increased over the years?
- (vi) How much subsidy is being given by US to its cotton producers? Has it got any impact on international price of cotton?

Data and Period of Study

The following data have been used:

- (i) The data relating to domestic production of cotton was taken from FAO (1997 – 2007). The area and productivity of cotton for India was taken from the Cotton Advisory Board (1990 – 2008).
- (ii) Farm gate prices of cotton for the period 1995 – 2006 were taken from FAO.
- (iii) The world trade data and exports of USA and India were taken from UN COMTRADE WITS for the period 1997 – 2008.
- (iv) USA's subsidies to cotton (product specific AMS and direct export subsidies) were taken from WTO and the data is available only for the period 1997 – 2004.
- (v) Under the WTO, 'Cotton' is classified as a product under Agriculture and is represented by the following HS Codes at 6 – digit (data for these lines were taken for the analysis):

HS Code	Commodity
520100	Cotton, not carded or combed
520210	Cotton yarn waste (including thread waste)
520291	Garnetted stock of cotton
520299	Cotton waste, except garnetted stock
520300	Cotton, carded or combed

Key findings

Production and exports of cotton

1. During the period 1997 to 2007 the domestic production of cotton in USA saw variation in its production. During the period, their production of cotton saw a growth of only 2.20%. However, USA's exports of cotton almost doubled from 1997 to 2007. In 1997 approximately 40% of USA's total domestic cotton produce was exported, this figure increased to 78% in 2007.
2. The domestic production of cotton in India has seen a positive growth over 1997 – 2007. The production increased by 138% and its exports grew by 872% in 2007 (base year 1997). For India only 8.54% of its total domestic cotton produce was exported in 1997 and it increased to 34.82% in 2007.
3. A comparative chart giving the details of their production, exports and percentage share is at Table - 1 below:-

It would be apparent that the production of cotton in USA has seen a positive growth and not “halved”. Secondly, from the above data it will also be apparent that US has started exporting a largest share of its domestic produce to the world market which has seen a much higher growth.

Another factor worth noticing relates to the fact that in the year 2007 both India & USA have produced almost comparable quantities of cotton; however the quantity of export of cotton of USA is double than that of India. The fact that the USA is a fellow sufferer like C4 vis-à-vis India does not appear to be true.

Farm Gate Price

4. As per the FAO statistics for the period 1995 – 2006; except for the years 1997 – 1998 & 2002, India was a cheaper producer than USA. India's cost competitiveness vis-à-vis

Table - 1

Year	USA			India		
		Total export of cotton in Mn. Tn.	Percentage share of cotton export in total cotton production	Domestic production of Cotton (in Mn. Tn.)	Total export of cotton in Mn. Tn.	Percentage share of cotton export in total cotton production
1997	4091700	1625187	39.72	1844670	157560.79	8.54
1998	3030000	1679575	55.43	2088800	41959.32	2.01
1999	3694000	768175	20.80	1960000	15904.99	0.81
2000	3742350	1575864	42.11	1825389	30187.93	1.65
2001	4420459	1911843	43.25	1699490	8227.084	0.48
2002	3746730	60410	1.61	1466080	11832.929	0.81
2003	3974600	2747831	69.13	2334000	179603.72	7.70
2004	5059940	2959138	58.48	2792800	76599.934	2.74
2005	5198970	3464218	66.63	3145000	614802.47	19.55
2006	4498000	3506420	77.96	3847000	1143863	29.73
2007	4181810	3259379	77.94	4400000	1531980	34.82

(Source: FAO & WITS)

USA (at farm gate) was 2.72%, 35.65% & 19.36% respectively in years 1995, 2005 & 2006 respectively. (Refer Table - 2 below)

Table - 2
Cotton Lint: Producer Price (US \$/tonne) (USD)

Year	India	USA
1995	1641.19	1687
1996	1476.53	1554
1997	1568.09	1459
1998	1602.87	1436.2
1999	1397.35	1459.6
2000	1332.71	1604.3
2001	1340.76	1623.4
2002	1348.52	1308.5
2003	1474.77	1636.2
2004	1310.98	1819.1
2005	1360.97	2114.
2006	1331.39	1651.1

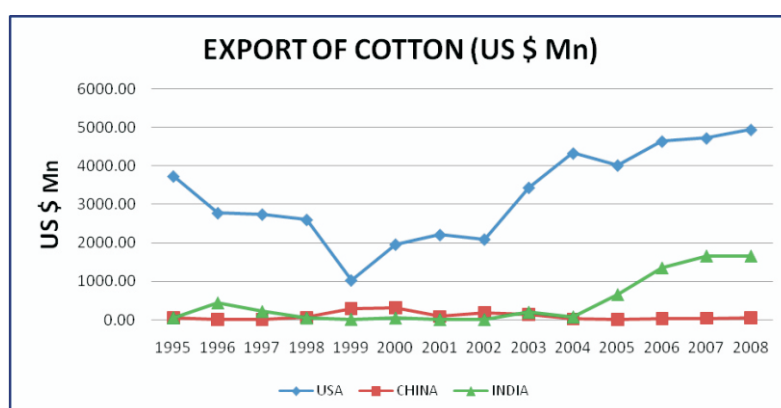
(Source: FAO; For India - calculated data)

Export of Cotton

5. The international market for cotton saw a decline during 1997 – 2002 & there after witnessed increase. From 1997 to 2007 the world market size grew by 13.29% only. USA continued to be the major exporter of cotton in the world market. On an average 50% of the world market share is captured by USA. It has been the top exporter of cotton in the world since 1997.

6. Over the years India & China have become top 10 exporters of cotton in the world market. While China has been a net importer of cotton, USA has always been the net exporter of cotton. India has only become the net exporter of cotton from 2005.
7. While USA's export share in the world market has increased from 30.76% in 1997 to 48.96% in 2008; India's world market share of cotton increased from 2.48% in 1997 to 16.89% in 2007.
8. From 1997 to 2007; the exports of USA, India & China on cotton have seen a higher growth in world trade. In percentage terms China (744%) & India (648%) have observed a much higher growth than USA (80.36%) in 2007 (base year 1997). This could be due to the fact that in 1997 the export value of India & China was very low compared to USA and at present in terms of value US exports three times the value of export of India and hundred times that of China. A comparative export performance of China, India and USA is as below:

Cotton: Export performance of China, India & USA



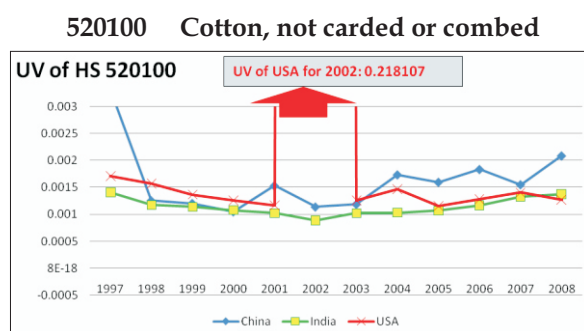
(Source: WITS)

Export Price

9. The calculation of export price was done on the basis of unit value method, in the following manner

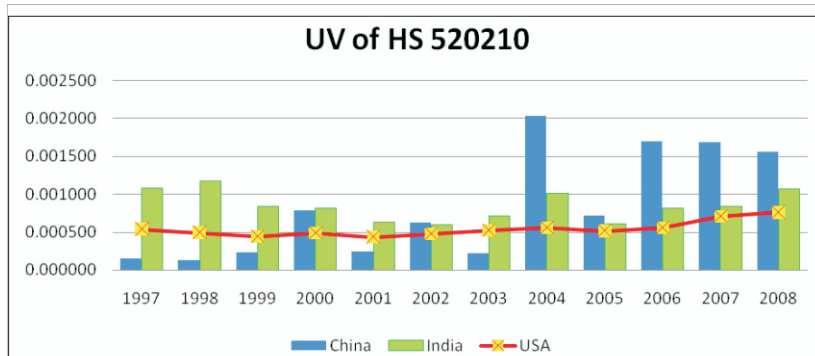
$$UV = \frac{\text{Value of Exports of an item at 6-digit HS level in US\$ Mn}}{\text{Total Quantity of exports of the same item at 6-digit HS Level in MT.}}$$

10. Out of the given specific HS categories of products except “Cotton yarn waste, (including thread waste)” (HS 520210) on all other items the unit value price of USA is higher than unit value price of India & China during 1997 – 2008.
11. In general, during the entire period of 1997-2007 India was cheaper exporter of cotton (in UV terms) than USA except in year 2000. In 1997 India's cotton was cheaper by 17 % and in 2005 India's cotton was cheaper by 7.76 % than USA despite the product specific AMS and export subsidy provided by USA, a benefit of were passed on to exports (as explained later).
12. An analysis was made at each 6-digit HS level to understand the price comparative advantage of exporting country. The following results are observed (using UN COMTRADE WITS data):-



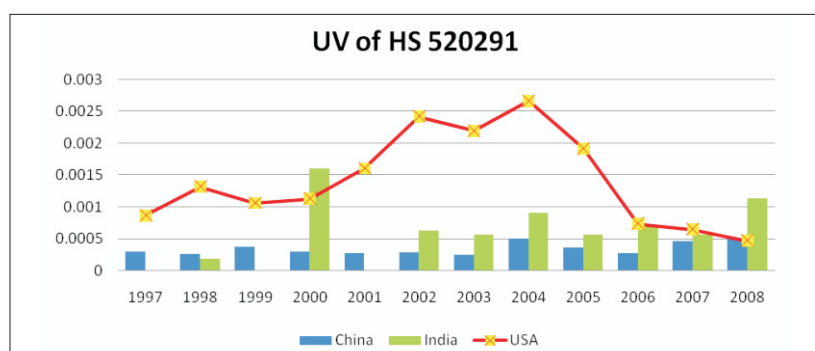
In general India had the most competitive UV on this item, except for the year 2000 where China has the lowest UV and 2008 where US has the lowest UV.

520210 Cotton yarn waste (including thread waste)



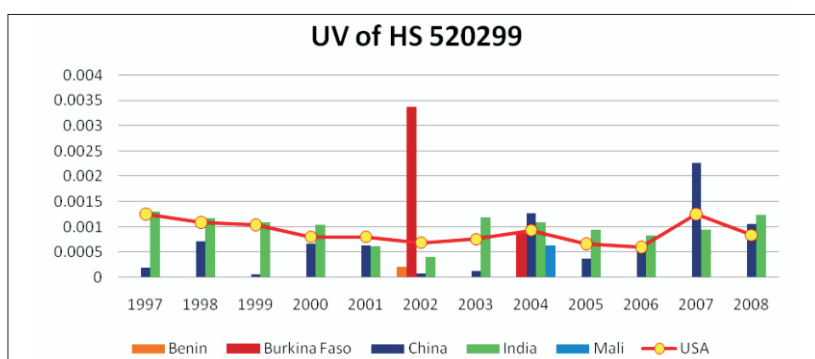
On this item it is China & USA which have the lower UV over the years.

520291 Garnetted stock of cotton



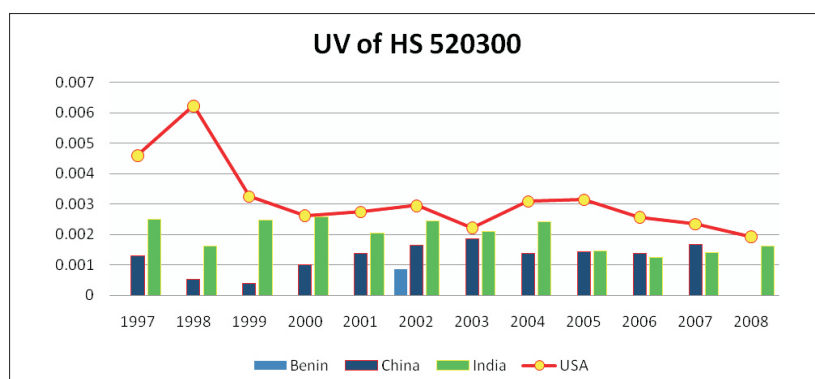
China has maintained the lowest UV over the years & US is the most costly exporter of this item.

520299 Cotton waste, except garnetted stock



This product has seen mixed response. US UV prices have been determined by the international pricing which is on the basis of UV of China, India, Mali & Benin.

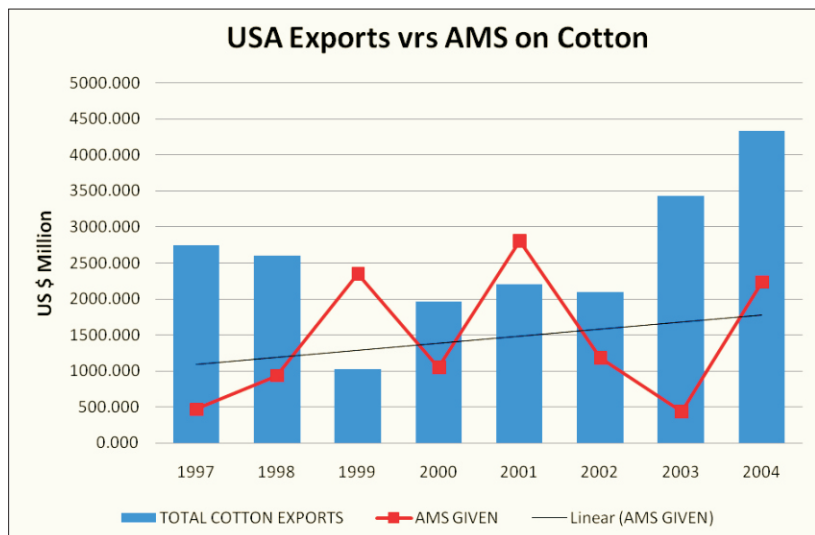
520300 Cotton, carded or combed



In this case US has the highest UV.

Product specific AMS of USA

13. USA notifies its product specific AMS and direct export subsidy to the WTO. In case of cotton, as per its notification to WTO (period 1997 – 2005), on an average the total AMS given by US amounted to approximately 55% of its total export value. Remarkably, for the years 1999 & 2001 the figures of 229% & 127% respectively, clearly signifying that for these years the amount of AMS given was more than USA's total exports of cotton to world! The extent of subsidization by US on Cotton can be seen from the following chart:-



(Source: USA notification to WTO)

14. Another interesting feature that has been observed during the period 1997 to 2005, while the world market of cotton saw a decline, the total AMS on cotton disbursed by USA increased by 248%.

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15. Since the AMS is given for the total domestic production, considering the of share of exports vis-à-vis its total domestic production, a theoretical calculation of AMS component passed on to the exports was made. This impacted the prices of cotton in the international market by reducing their actual price. It was found that during the years 1999, 2001, 2004 & 2005 the US exports of cotton (in value terms) had a component of 53.87%, 77.51%, 39.96% and 33.13% product specific AMS and direct export subsidy. The pro-rata values were to the tune of US \$ 552 million, 1.17 billion, 894 million and 622 million for these years. These figures are much higher than the respective export values of cotton of China or India or the C 4 Group to the world market!
 16. The above facts clearly bring out the fact that the demand of cotton in world market has not declined, nor the exports of USA. The effect of India's export incentive schemes are less trade distorting in this case as even the total disbursement of AMS and direct export subsidy by USA in value terms is higher than India's total exports of cotton to the world.
 17. In view of the above fact, India should consider supporting C-4 in seeking greater reduction in the OTDS by USA. Currently India is not a party to the discussions which are being held currently on Cotton under the Doha Round. It would be important therefore that India clearly announces its interest to be a part of these discussions which are being held between USA and C-4. Lastly, there is no clarity on what is being discussed in these meetings, which raises another issue relating to the entire transparency aspect of the Doha negotiations.

ABOUT THE AUTHOR



Shri Rajan Sudesh Ratna has joined the Centre for WTO Studies, Indian Institute of Foreign Trade in June 2008 as Professor. He has been handling the research works relating to Agriculture, NAMA, Trade and Environment, SPS and TBT issues. He also handles the work of training and outreach programmes for the Centre. He has written several papers on matters relating to trade policy especially on FTAs, South – South Trade, Rules of Origin, SPS issues, Trade and Gender etc. He has also made numerous presentations during consultations with stakeholders in India as well as during his participation in National Seminars and International Conferences.

Shri Ratna belongs to Indian Trade Service (1987 Batch), a specialized service in the Government of India dealing with matters of international trade policy formulation and implementation. In his earlier assignment, he had worked at various levels in the Department of Commerce. He has handled the trade negotiations relating to Regional Trade Agreements of India as well WTO related issues. He was associated with formulating India's Duty Free Tariff Preference Scheme.

Shri Ratna has done M.Sc. from Banaras Hindu University and M.Phil. from Jawaharlal Nehru University, New Delhi. He has also done courses on Foreign Trade Policy from Indian Institute of Foreign Trade and on Negotiating Strategy from Harvard University, Boston, USA.

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Centre for WTO Studies

Indian Institute of Foreign Trade

IIFT Bhawan, B-21, Qutab Institutional Area, New Delhi-110016

Tel: 011-26564409

E-mail: editor_wtocentre@iift.ac.in