

The Growth of Cotton Exporting Countries in the World

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ABSTRACT

Cotton is one of the major commercial crops where 70 percent of the crop is under rainfed conditions. Eighty-five percent of the cotton is grown in ten major countries of the world, among which India stands first in production. The present study analyzes the state-wise production scenario of cotton over the years as well as the export and import composition and competitiveness. The study revealed that the growth rate change of cotton area during the period was highest for the state of India (13,061 hectares out of a world area of 32,416 hectares). Moreover, the country as a whole had decreases of 24.51 million metric tonnes while India occupied first place with a production increase of about 5.84 million metric tonnes during the study period. The growth rate of the cotton consumption was negative, while the growth of cotton consumption was 23.79 million metric tonnes in the country, while China stands first with 31.53 percent of the world contribution. The export competitiveness revealed that India's comparative advantage in cotton exports (second place of world exports) has been increasing over the years, and the imports of cotton also fully controlled to maintain sixth place of world imports during the period.

Keywords: cotton cultivation area, production and yield, consumption, exports, and imports

Introduction

Cotton is one of the most important commercial crops cultivated in India and accounts for around 23 percent of the total global cotton production. It plays a major role in sustaining the livelihood of an estimated 6 million cotton farmers and 40-50 million people engaged in related activity such as cotton processing and trade. The Indian textile industry consumes a diverse range of fibers and yarns, and the ratio of use of cotton to non-cotton fibers in India is around 60:40, whereas it is 30:70 in the rest of the world.

Apart from being the provider of a basic necessity of life, i.e. clothing, which is next only to food, cotton is also one of the largest contributors to India's net foreign exchange by way of exports in the form of raw cotton, intermediate products such as yarn and fabrics, and ultimate finished products in the form of garments, make-up, and knitwear. Due to its economic importance in India, it is also termed "White Gold."

Global production for 2022-23 is projected at 24.51 million metric tonnes (1441 lakh bales), which is 2.8 percent less in comparison to the previous year's production of 25.18 million tonnes (1481 lakh bales). Global cotton consumption is projected at 23.79 million tonnes (1399 lakh bales), which is around 8 percent less in comparison to the previous year's consumption of 25.81 million tonnes (1518 lakh bales). Global cotton export is projected at 8.98 million tonnes (528 lakh bales), which is 8 percent lower in comparison to the previous year's export of 9.73 million tonnes (572 lakh bales). Global cotton import is estimated at 8.98 million tonnes (528 lakh bales), which is 6 percent lower in comparison to the previous year's import of 9.60 million tonnes (564 lakh bales). Global ending stocks are estimated at 20.14 million tonnes (1184 lakh bales), which is 4 percent higher in comparison to the previous year's ending stock of 19.42 million tonnes (1142 lakh bales).

Details of major country-wise area and productivity, production, consumption, exports, and imports are as under.

Objectives

1. To analyse the cotton cultivation area and production yield of the world.
2. To discuss the production and consumption of cotton of the world.
3. To explain the imports and exports of cotton in the world

Performance of cotton

The statistics shows the world's leading cotton producing countries in crop years from 2017-18 to 2022-23. The details of cotton cultivation area and production yield, production, imports and exports of cotton are as follows.

Cotton cultivation area and Productivity (Yield)

The global-wise top position of cotton production area and yield during the period from 2017-18 to 2022-23 is presented in Table-1. India got first place in the world in cotton cultivation usage area with 130.01 lakh hectares (40.29 per cent of) the world area of 32416 lakh hectares, during the year 2022–23. Approximately 67 percent of India's cotton is produced in rain-fed areas and 33 percent on irrigated lands. In terms of productivity, India is in the 39th rank with a yield of 447 kgs per hectare (59.13 per cent of) and the world yield of 756 kgs per hectare during the same period.

The land used for cotton cultivation was 12586 lakh hectares out of the world cotton cultivation of 33283 lakh hectares, while cotton production yielded 500 kg per hectare (61.65 per cent of), whereas the world production yielded 811 kg per hectare during the year 2017-18.

The USA used cotton cultivation land of 4492 lakh hectares (13.50 per cent of), while the world cotton cultivation area was 33283 lakh hectares, and the production yield was 811 kg per hectare (125.03 per cent of) during the period 2017-18. During 2022-23 the cotton cultivation land used to be 2967 lakh hectares (9.15 per cent of), while the world cotton cultivation area was 32416 lakh hectares, with a production yield of 1065 kg per hectare (140.87 per cent of) and while the world production yield of 756 kg per hectare.

In the fourth place of Pakistan, during 2022-23 the cottage acreage was 21.28 lakh hectares (6.56 per cent of), while the world used land of 324.16 lakh hectares, whereas the cotton production yield was 399 kg per hectare (52.78 per cent of) and the world cotton yield was 756 kg per hectare.

Table-1

Global-wise cotton productivity area and yield during from 2017-18 to 2022-23

(Area in Thousand Hectare and productivity in Kgs/Hectare)

Countries	2017-18		2018-19		2019-20		2020-21		2021-22		2022-23	
	Area	Yield	Area	Yield	Area	Yield	Area	Yield	Area	Yield	Area	Yield
World	33283	811	33041	786	34495	758	31482	762	32717	770	32416	756
India	12586	500	12614	449	13477	460	13285	453	12371	428	13061	447
% to total	37.82	61.65	38.18	57.12	39.07	60.69	42.20	59.45	37.81	55.58	40.29	59.13
USA	4492	1014	4043	989	4654	931	3347	950	4156	918	2967	1065
% to total	13.50	125.03	12.24	125.83	13.49	122.82	10.63	124.67	12.70	119.22	9.15	140.87
China	3350	1758	3367	1794	3300	1758	3170	1864	3028	1892	3000	1993

% to total	10.07	216.77	10.19	228.24	9.57	231.93	10.07	244.62	9.26	245.71	9.25	263.62
Pakistan	2700	665	2373	704	2527	522	2000	480	2110	600	2128	399
% to total	8.11	82.00	7.18	89.57	7.33	68.87	6.35	62.99	6.45	77.92	6.56	52.78
Brazil	1175	1707	1618	1717	1666	1802	1371	1719	1373	1859	1650	1830
% to total	3.53	210.48	4.90	218.45	4.83	237.73	4.35	225.59	4.20	241.43	5.09	242.06

Source: World: ICAC Journal 'Cotton This Month' -1st June 2023, India: COCPC meeting 01.06.23

The cotton acreage usage was 2700 lakh hectares (8.11 per cent of) out of 33283 lakh of world production area in 2017-18 and the cotton production yield registered at 665 kg per hectare (82 per cent of) out of 811 kg per hectare of world cotton cultivation land registered during the same period.

Production

Table-2 depicts, global-wise, the top position of cotton production during the period from 2017-18 to 2022-23. The India got first place occupied as the cotton production recorded substantial improvement in its production with 6.29 million metric tonnes (23.30 percent share of the allover world) in 2017-18, 5.66 metric tonnes (21.79 percent share of the allover world) in 2018-19, 6.21 metric tonnes (23.65 percent share of the allover world) in 2019-20, 5.99 metric tonnes (24.97 percent share of the allover world) in 2020-21, 5.29 metric tonnes (21.01 percent share of the allover world) in 2021-22, 5.84 metric tonnes (23.83 percent share of the allover world) in 2022-23.

Cotton production occupied second place behind China. It shows the share of 21.81 percent (5.89 metric tonnes) of world production, 23.25 percent (6.04 metric tonnes) of world production, 22.09 percent (5.80 metric tonnes) of world production, 24.64 percent (5.91 metric tonnes) of world production, 22.76 percent (5.73 metric tonnes) of world production, and 24.40 percent (5.98 metric tonnes) of world production, respectively.

The USA also occupied third place in the world, as could be seen from the table: 16.89 percent (4.56 metric tonnes) share of world cotton production in 2017-18, 15.40 percent (4.00 metric tonnes) share of world cotton production in 2018-19, 16.49 percent (4.33 metric tonnes) share of world cotton production in 2019-20, 13.26 percent (3.18 metric tonnes) of world cotton production in 2020-21, 15.13 percent (3.81 metric tonnes) of world cotton production in 2021-22, and 12.85 percent (3.15 metric tonnes) of world cotton production in 2022-23.

Table-2

Global-wise cotton production during from 2017-18 to 2022-23

(Quantity in Million Metric Tonnes)

Countries	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
World	27.00	25.98	26.26	23.99	25.18	24.51
India	6.29	5.66	6.21	5.99	5.29	5.84
% to total	23.30	21.79	23.65	24.97	21.01	23.83
China	5.89	6.04	5.80	5.91	5.73	5.98
% to total	21.81	23.25	22.09	24.64	22.76	24.40
USA	4.56	4.00	4.33	3.18	3.81	3.15
% to total	16.89	15.40	16.49	13.26	15.13	12.85
Brazil	2.00	2.78	3.00	2.36	2.55	3.02

% to total	7.41	10.70	11.42	9.84	10.13	12.32
Pakistan	1.80	1.67	1.46	0.96	1.27	0.85
% to total	6.67	6.43	5.56	4.00	5.04	3.47

Source: World: ICAC Journal 'Cotton This Month' – 1st June 2023, India: COCPC meeting

The fourth place of Brazil, cotton production occupied a share of 7.41 percent (2.00 metric tonnes) of world production, 10.70 percent (2.78 metric tonnes) of world production, 11.42 percent (3.00 metric tonnes) of world production, 9.84 percent (2.36 metric tonnes) of world production, 10.13 percent (2.55 metric tonnes) of world production, and 12.32 percent (3.02 metric tonnes) of world production, respectively.

The last place occupied by Pakistan was 1.8 million metric tonnes (6.67 percent share of the allover world) in 2017-18, 1.67 metric tonnes (6.43 percent share of the allover world) in 2018-19, 1.46 metric tonnes (5.56 percent share of the allover world) in 2019-20, 0.96 metric tonnes (4 percent share of the allover world) in 2020-21, 1.27 metric tonnes (5.04 percent share of the allover world) in 2021-22, and 0.85 metric tonnes (3.47 percent share of the allover world) in 2022-23.

Consumption

Table-3 shows the position of cotton consumption all over the world during the period from 2017–18 to 2022–23. China got first place as the cotton consumption recorded substantial improvement in its production consumption, with 8.50 million metric tonnes (32.26 percent share of world cotton consumption) in 2017-18, 8.25 metric tonnes (31.72 percent share of world cotton consumption) in 2018-19, 7.23 metric tonnes (31.37 percent share of world cotton consumption) in 2019-20, 8.40 metric tonnes (32.70 percent share of world cotton consumption) in 2020-21, 8.31 metric tonnes (32.20 percent share of world cotton consumption) in 2021-22, and 7.50 metric tonnes (31.53 percent share of world cotton consumption) in 2022-23.

Table-3

Global-wise cotton consumption during the period from 2017-18 to 2022-23

(Quantity in Million Metric Tonnes)

Countries	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
World	26.35	26.01	23.05	25.69	25.81	23.79
China	8.50	8.25	7.23	8.40	8.31	7.50
% to total	32.26	31.72	31.37	32.70	32.20	31.53
India	5.43	5.29	4.58	5.70	5.48	5.29
% to total	20.61	20.34	19.87	22.19	21.23	22.24
Pakistan	2.35	2.36	2.34	2.15	2.45	1.90
% to total	8.92	9.07	10.15	8.37	9.49	7.99
Brazil	0.68	0.73	0.57	0.69	0.70	0.70
% to total	2.58	2.81	2.47	2.69	2.71	2.94
USA	0.70	0.63	0.47	0.52	0.56	0.46
% to total	2.66	2.42	2.04	2.02	2.17	1.93

Source: World: ICAC Journal 'Cotton This Month' – 1st May 2023, India: COCPC meeting 01.06.23

Cotton consumption all over the world occupied second place, followed by India. It shows that the share of 20.61 percent (5.43 metric tonnes) of world cotton consumption, 20.34 percent (5.29 metric tonnes) of world cotton consumption, 19.87 percent (4.58 metric tonnes) of world cotton consumption, 22.19 percent (5.70 metric tonnes) of world cotton consumption, 21.23 percent (5.48 metric tonnes) of world cotton consumption, and 22.24 percent (5.29 metric tonnes) of world cotton consumption, respectively.

Pakistan also occupied third place in the world for cotton consumption, as could be seen from the table. 8.92 percent (2.35 metric tonnes) share of world cotton consumption in 2017-18, 9.07 percent (2.36 metric tonnes) share of world cotton consumption in 2018-19, 10.15 percent (2.34 metric tonnes) share of world cotton consumption in 2019-20, 5.37 percent (2.15 metric tonnes) share of world cotton consumption in 2020-21, 9.49 percent (2.45 metric tonnes) share of world cotton consumption in 2021-22, and 7.99 percent (1.90 metric tonnes) share of world cotton consumption in 2022-23.

In the fourth place of Brazil, cotton consumption occupied a share of 2.58 percent (0.68 metric tonnes) of world consumption, 2.81 percent (0.73 metric tonnes) of world consumption, 2.47 percent (0.57 metric tonnes) of world consumption, 2.69 percent (0.69 metric tonnes) of world consumption, 2.71 percent (0.70 metric tonnes) of world consumption, and 2.94 percent (0.70 metric tonnes) of world cotton consumption, respectively.

The last but not least place occupied by the USA was 0.70 million metric tonnes (2.66 percent share of world cotton consumption) in 2017-18, 0.63 metric tonnes (2.42 percent share of world cotton consumption) in 2018-19, 0.47 metric tonnes (2.04 percent share of world cotton consumption) in 2019-20, 0.52 metric tonnes (2.02 percent share of world cotton consumption) in 2020-21, 0.56 metric tonnes (2.17 percent share of world cotton consumption) in 2021-22, and 0.46 metric tonnes (1.93 percent share of world cotton consumption) in 2022-23.

Exports of cotton

In view of the impressive performance of cotton production with regards to exports, a further analysis was attempted to probe the aspect in detail. Table-4 provides additional information on exports. As could be seen from the table, exports of cotton production gradually fluctuated from a paltry 9.14 million metric tonnes to 8.98 million metric tonnes during 2017-18 to 2022-23.

With the USA getting first place in cotton exports, it should be noted that exports from cotton products totaled 3.64 million metric tonnes with a share of 39.82 percent of world cotton exports during 2017–18, 3.37 million metric tonnes (36.31 percent of world cotton exports) during 2018–19, 3.47 million metric tonnes with a share of 37.68 percent of world cotton exports during 2019–20, 3.63 million metric tonnes (3.52 percent of world cotton exports) during 2020-21, 3.18 million metric tonnes (32.68 percent of world cotton exports) during 2021–22, and 2.30 million metric tonnes with a share of 25.61 percent of world cotton exports during 2022–23.

Table-4

Global-wise cotton exports during from 2017-18 to 2022-23

(Quantity in Million Metric Tonnes)

Countries	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
World Total	9.14	9.28	9.21	10.83	9.73	8.98
USA	3.64	3.37	3.47	3.63	3.18	2.30
% to total	39.82	36.31	37.68	33.52	32.68	25.61
India	1.15	0.74	0.80	1.32	0.72	0.51
% to total	12.58	7.97	8.69	12.19	7.40	5.68
CFA Zone	1.06	1.16	1.07	1.19	1.31	0.97
% to total	11.60	12.50	11.62	10.99	13.46	10.80
Brazil	0.91	1.31	1.95	2.42	1.74	1.97
% to total	9.96	14.12	21.17	22.35	17.88	21.94
Uzbekistan	0.22	0.16	0.10	0.10	0.03	0.03
% to total	2.41	1.72	1.09	0.92	0.31	0.33

Source: World: ICAC Journal ‘Cotton This Month’ – 1st June 2023, India: COCPC meeting 01.06.23

India got second place of cotton exports, it should be seen from the table 12.58 percent share of world cotton production exports (1.15 million metric tonnes) during 2017-18, 7.97 percent share of world cotton production exports with export production of 0.74 million metric tonnes during 2018-19, 8.69 percent share of world cotton production exports (0.80 million metric tonnes) during 2019-20, 12.19 percent share of world cotton production exports with export production of 1.32 million metric tonnes during 2020-21, 7.40 percent share of world cotton production exports with export production of 0.72 million metric tonnes during 2021-22, 5.68 percent share of world cotton production exports with export production of 0.51 million metric tonnes during 2022-23.

CFA Zone also occupied third place in the world cotton exports, as could be seen from the table: 11.60 percent (1.06 million metric tonnes) share of world cotton exports during 2017-18, 12.50 percent (1.16 million metric tonnes) share of world cotton exports during 2018-19, 11.62 percent (1.07 million metric tonnes) share of world cotton production exports during 2019-20, 10.99 percent (1.99 million metric tonnes) share of world cotton exports during 2020-21, 13.46 percent (1.31 million metric tonnes) of world cotton exports in 2021-22, 10.80 percent (0.97 million metric tonnes) share of world cotton exports during 2022-23.

In the fourth place of Brazil, the cotton exports registered a share of 9.96 percent (0.91 million metric tonnes) of world production exports, 14.12 percent (1.31 million metric tonnes) of world production exports, 21.17 percent (1.95 million metric tonnes) of world production exports, 22.35 percent (2.42 million metric tonnes) of world production exports, 17.88 percent (1.74 million metric tonnes) of world production exports, and 21.94 percent (1.97 million metric tonnes) of world production exports, respectively.

In the last place of Uzbekistan, cotton exports had a share of 2.41 percent. 1.72 percent, 1.09 percent, 0.92 percent, 0.31 percent, and 0.33 percent of world exports, respectively.

Imports of cotton

In view of the impressive performance of cotton production with regard to imports, further analysis was attempted to probe the aspect in detail. Table-5 provides additional information on imports. As could be seen from the table, imports of cotton production gradually fluctuated and overall decreased from 9.04 million metric tonnes to 8.98 million metric tonnes from 2017-18 to 2022-23.

China got first place in the world cotton imports, as could be seen from the table, 14.60 percent (1.32 million metric tonnes) share of world cotton imports during 2017-18, 22.78 percent (2.10 million metric tonnes) share of world cotton imports during 2018-19, 18.22 percent (1.60 million metric tonnes) share of world cotton exports during 2019-20, 26.72 percent (2.84 million metric tonnes) share of world cotton imports during 2020-21, 19.27 percent (1.85 million metric tonnes) share of world cotton imports in 2021-22, and 20.04 percent (1.80 million metric tonnes) share of world cotton imports during 2022-23.

Table-5

Global-wise import of cotton during the period from 2017-18 to 2022-23

(Quantity in Million Metric Tonnes)

Countries	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
World Total	9.04	9.22	8.78	10.63	9.60	8.98
China	1.32	2.10	1.60	2.84	1.85	1.80
% to total	14.60	22.78	18.22	26.72	19.27	20.04
Bangladesh	1.67	1.54	1.50	1.69	1.70	1.54
% to total	18.47	16.70	17.08	15.90	17.71	17.15
Vietnam	1.52	1.51	1.41	1.55	1.36	1.20

% to total	16.81	16.38	16.06	14.58	14.17	13.36
Turkey	0.96	0.79	1.02	1.19	1.24	1.20
% to total	10.62	8.57	11.62	11.19	12.92	13.36
Indonesia	0.77	0.66	0.55	0.55	0.58	0.60
% to total	8.52	7.16	6.26	5.17	6.04	6.68
India	0.27	0.60	0.26	0.19	0.36	0.17
% to total	2.99	6.51	2.96	1.79	3.75	1.89

Source: World: ICAC Journal ‘Cotton This Month’ – 1st June 2023, India: COCPC meeting 01.06.23

Bangladesh got second place in cotton imports. It should be noted that imports from cotton products are 1.67 million metric tonnes with a share of 18.47 percent of world cotton imports during 2017-18, 1.54 million metric tonnes (16.70 percent of world cotton imports) during 2018-19, 1.50 million metric tonnes with a share of 17.08 percent of world cotton imports during 2019-20, 1.69 million metric tonnes (15.90 percent of world cotton imports) during 2020-21, 1.70 million metric tonnes (17.71 percent of world cotton imports) during 2021-22, 1.54 million metric tonnes with a share of 17.15 percent of world cotton imports during 2022-23.

India got last place in cotton imports, it should be seen from the table 2.99 percent share of world cotton production imports (0.27 million metric tonnes) during 2017-18, 6.51 percent share of world cotton imports with import production of 0.60 million metric tonnes during 2018-19, 2.96 percent share of world cotton production imports (0.26 million metric tonnes) during 2019-20, 1.79 percent share of world cotton production imports with import production of 0.19 million metric tonnes during 2020-21, 3.75 percent share of world cotton production imports with import production of 0.36 million metric tonnes during 2021-22, 1.89 percent share of world cotton production imports with import production of 0.17 million metric tonnes during 2022-23.

Conclusions

The discussion throws light on the fact that the growth performance of cultivation in the area, production, and productivity of the cotton crop in India were positive results (i.e., 12,586 to 13,061 all over the world). India got first place in cotton cultivation, the production of cotton and yield also fluctuated during the period, while India had first place as compared to other states, second place in cotton exports, and sixth place in cotton imports. China has cotton consumption, and imports of cotton are in first place in the world, second place in the production of cotton, and third place in cotton cultivation. During the study period, the USA got first place in cotton export earnings, second in production area, third in production, and fifth place in consumption of poor cotton. Therefore, it is necessary to increase cotton exports, increase sustainable cotton production in India, and take up productivity-enhancing measures in the cotton crop like varietal improvement, improving the knowledge of cotton cultivation and appropriate technologies.

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