



Study Report On

# Cotton Crisis



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### Findings:

- Country will miss Production target of 14.1 million bales by over 25%.
- Increased sugarcane cultivation in the cotton areas, and shortage of certified seed decline in cotton sowing was registered.
- Revised cotton production target 14.1 million bales from 7.4 million acres for the season 2016-17 against 15.49 million bales from 7.7 million acres for season 2015-16 estimated for the just concluded season 2015-16.
- Crop production target missed around 30% and cotton production around 10 million bales 2015-16.
- Loss of 0.5% to GDP growth
- Punjab expected to produce 9.5 million cotton bales from 5.9 million acres in 2015-16.
- Sindh had to cover 1.6 million acres and was estimated to produce 4.5 million cotton bales in 2015-16.
- Baluchistan had to grow cotton at its 0.12 million acres and targeted to produce 0.4 million cotton bales.
- Khyber Pakhtunkhwa had targeted to cover about 74000 acres and to produce 0.0015 million cotton bales.

### 2016-17

- ❖ Cotton has been sown on 5.9 million acres this year against 7.1 million acres of the last year.
- ❖ Punjab which produces about 70% of the total cotton had been hit hard as 4.3 million acres and covered in 2016-17 against 5.5 million acres 2015-16. It is 75 % for current season but remained 22% less from previous year's cotton sowing.
- ❖ Upto 50% certified cotton seed was available in the market in 2015-16 which should be improved.
- ❖ In Sindh cotton has been sown on 1.57 million acres against 1.5 million acres during last year.
- ❖ It is 96% of the target surpassed the last year target by 2.4%.
- ❖ 80% of the target for cotton sowing in current season has so far been achieved..e, in 2016-17

### IMPACT

**Due to shortfall in 2015-16 and further less sowing of cotton crop in 2016-17, (22%), cotton production target of 14.1 million bales will not be achievable. Textile exports may decline further from 7.42% in 2015-16. Industry might prepare itself for the looming cotton production.**

## STUDY REPORT

### COTTON CRISES IN PAKISTAN

Cotton production in Pakistan is the backbone of the nation's economy. Cotton is grown as an industrial crop in 15% of the nation's land during the monsoon months of May to August, known as the kharif period, and is grown at a smaller scale between February and April. Production-wise, Pakistan occupies the fourth position among the cotton growers of the world, the first three being China, India and the United States, in that order. Cotton is grown mostly in the two provinces of Punjab and Sindh, with the former accounting for 79% and the latter 20% of the nation's cotton growing land. It is also grown in Khyber Pakhtoon Khawah (KPK) and Balochistan provinces. The total land area of cotton cultivation was reported as 2.95 million hectares during the 2014–15 growing season, and is unlikely to change during the 2015–16 season.

#### Exporters:

US \$ billion

Rank	Exporter	2015 Cotton Exports	% World Total
1.	China	15.8	29.1%
2.	India	7.5	13.8%
3.	United States	5.9	10.8%
4.	Pakistan	3.1	5.7%
5.	Hong Kong	2.3	4.3%

Source: <http://www.worldstopexports.com/cotton-exports-by-country/>

#### Importers:

US \$ billion

Rank	Importer	2015 Cotton Imports	% World Total
1.	China	10.3	20.2%
2.	Bangladesh	4.5	8.8%
3.	Vietnam	3.8	7.4%
4.	Turkey	2.3	4.5%
5.	Hong Kong	2.1	4.2%
6.	Indonesia	1.6	3.1%
7.	South Korea	1.3	2.6%
8.	Italy	1.3	2.5%
9.	Pakistan	1.3	2.5%

Source: <http://www.worldstopexports.com/cotton-imports-by-country/>

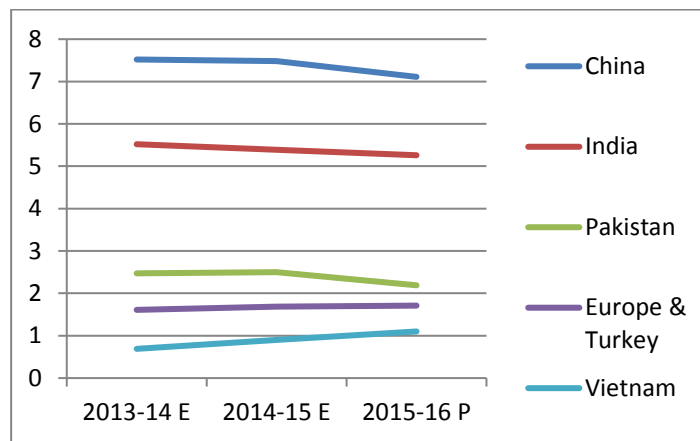
## World Cotton Consumption

Million metric tons

Sr. no	Country Name	2013-14 E	2014-15 E	2015-16 P
1.	China	7.52	7.48	7.11
2.	India	5.52	5.39	5.26
3.	Pakistan	2.47	2.50	2.19
4.	Europe & Turkey	1.61	1.69	1.71
5.	Vietnam	0.69	0.90	1.10

Source: Ministry of Finance, Economic survey

## World Cotton Consumption

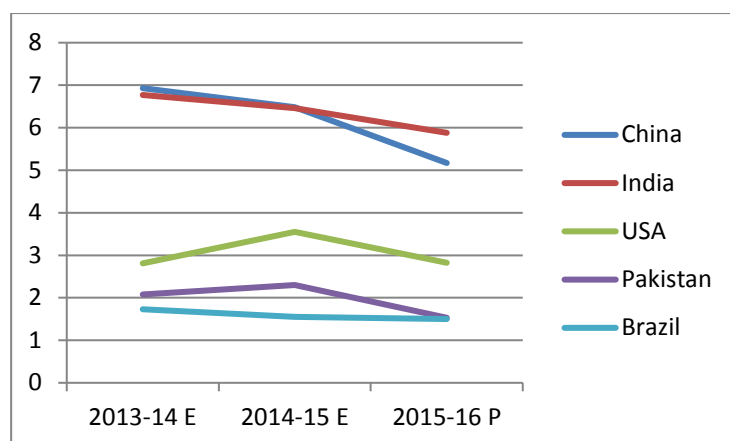


## World Cotton Production

Million metric tons

Sr. no	Country Name	2013-14 E	2014-15 E	2015-16 P
1.	China	6.93	6.48	5.17
2.	India	6.77	6.46	5.88
3.	USA	2.81	3.55	2.82
4.	Pakistan	2.08	2.30	1.53
5.	Brazil	1.73	1.55	1.50

Source: Ministry of Finance, Economic Survey



Millions of farmers are directly associated with cultivation and harvesting of cotton crop and sale of lint. Many others are indirectly linked with cotton value chain. Thus, livelihood of millions of farmers and of those employed along the entire cotton value chain is dependent on this single crop.

#### Sectoral Share of Cotton Ginning in GDP, Growth Rate % and GNP (at current prices and constant basic prices)

Rs. million

Years	% Share In GDP	% Growth Rate	GNP at Current Prices	GNP at constant basic prices of 2005-06
2010-11	0.6	-8.48	224,129	55,506
2011-12	0.7	13.83	143,488	63,185
2012-13	0.6	-2.90	142,087	61,351
2013-14	0.6	-1.33	157,467	60,536
2014-15 (R)	0.6	7.24	184,772	64,920
2015-16 (P)	0.46	-21.26	163,632	51,121

Source: Ministry of Finance, Economic Survey

#### Area, production & Yield of cotton

Year	Area		Production		Yield	
	'000' hectares	% change	'000' bales	% change	Kgs/Hec	% change
2010-11	2689	13.4	11460	-11.3	724	2.4
2011-12	2835	5.4	13595	18.6	815	12.6
2012-13	2879	1.6	13031	-4.1	769	-5.6
2013-14	2806	-2.5	12769	-2.0	774	0.6
2014-15	2961	5.5	13960	9.3	802	3.6
2015-16 (P)	2917	-1.5	10074	-27.8	587	-26.8

Source: PBS, SBP & Economic Survey



<b>2010</b>	-	-	-	-	-	866	1973	1823	8610	53227	63827	45967
<b>2011</b>	1980 9	15162	33963	32499	20613	12115	9916	17410	2138 7	13135	27187	45560
<b>2012</b>	4164 1	80398	93034	73758	45205	11251	1252 6	5452	6645	25767	24666	11245
<b>2013</b>	1159 4	14662	19491	17261	9304	8830	5845	14902	2986 1	18406	25657	23359
<b>2014</b>	2071 6	17406	17059	16171	13163	5625	2414	8081	2767 1	27668	22055	21317
<b>2015</b>	1712 4	11631	4960	4390	3177	2373	2942 (P)	9664 (P)	2517 3 (P)	21503 (P)	5329 (P)	1485 (P)
<b>2016</b>	1599 (R)	3218 (R)	3327 (R)	538 (R)	683 (P)							

Source: SBP

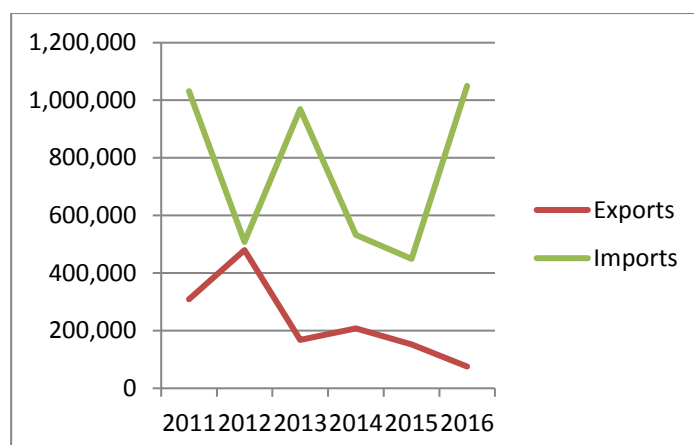
### Cotton Exports & Imports of Pakistan (Yearly)

Thousand US \$

<b>Fiscal Year</b>	<b>Exports</b>	<b>Imports</b>
2011	309,587	1,031,726
2012	479,881	508,545
2013	167,441	969,747
2014	208,171	532,156
2015	152,861	449,410 (R)
2016	75460	1,050,011 (P)

Source: SBP





## Composition of Output of Cotton

% Share in Agriculture

Fiscal Years	Cotton
2010-11	26.05
2011-12	29.23
2012-13	28.06
2013-14	25.70
2014-15 (P)	27.95
2015-16	21.72

Source: PBS, Economic Survey

## Growth

(Value in %)

Years	Cotton Yarn	Cotton Cloth
2010-11	5.46	1.08
2011-12	0.52	0.30
2012-13	3.57	0.56
2013-14	8.62	0.68
2014-15 (July-March)	1.16	0.05
2015-16 (July-March)	1.54	0.43

Source: Ministry of Finance, Economic Survey

## COTTON SEED AVAILABILITY

Metric tones

Year	Local	Imported	Total
2011-12	1649.8	0.0	1649.8
2012-13	679.7	0.0	679.7
2013-14	17,175.25	0.0	17,175.25
2014-15	28389	0.0	28389
2015-16	34520.82	0.0	34520.82

(Provisional, July-March)

**Source:** Ministry of Finance, Economic Survey

## COTTON ARRIVALS IN FACTORIES OF PAKISTAN

Category	15 Nov, 2016	1 Jan, 2016	15 Jan, 2016	1 Feb, 2016	15 Feb, 2016	1 March, 2016	1 April, 2016
Shortfall	23.17%	33.52%	33.51%	33.41%	33.62%	33.85%	34.21%
Punjab	4.65 M bales	5.57 M bales	5.74 M bales	5.85 M bales	5.92 M bales	5.96 M bales	5.99 M bales
Sindh	3.36 M bales	3.70 M bales	3.73 M bales	3.75 M bales	3.75 M bales	3.76 M bales	3.76 M bales
Total sold out bales	5.86 M bales	7.62 M bales	8.03 M bales	8.39 M bales	8.68 M bales	8.90 M bales	9.27 M bales
Unsold stock with Ginners	2.15 M bales	1.65 M bales	1.43 M bales	1.22 M bales	0.99 M bales	0.81 M bales	0.48 M bales
Total Ginning Factories (Punjab & Sindh)	1300	1300	1300	1300	1300	1300	1300
Started functioning (Punjab & Sindh)	996 (725 & 271)	416 (280 & 136)	278 (193 & 85)	167 (128 & 39)	79 (68 & 11)	47 (41 & 6)	16 (13 & 3)

**Source:** PCGA

According to a fortnightly report of Pakistan Cotton Ginners Association (PCGA) issued on 1<sup>st</sup> April, 2016, out of total arrivals, Phutti equivalent to 9.756,753 bales has undergone the ginning process.

The arrival at Punjab ginneries was recorded at over 5.9 million (5,996,107) bales recording a percentage decrease of 33.38 per cent compared to corresponding period of last year. Arrival at ginneries in Sindh was recorded at 3.76 million or 3,766,037 bales showing a percentage decrease of 5.25 per cent. Textile Mills have purchased over 8.91 million or

8,911,002 bales, and exporters have bought 362,141 bales. Total sold out bales were calculated at 9.27 million or 9,273,143 bales.

Exactly 489,001 bales were still lying with the ginneries as the unsold stock, according to the PCGA report of 1<sup>st</sup> April, 2016. Meanwhile, 16 ginning factories in Punjab and Sindh have become operational and started converting seed cotton (Phutti) into bales. There are almost 1300 ginning factories in the country and 3 of them started functioning in Sindh and 13 in Punjab from April 16. According to PCGA, cotton arrivals this year registered downfall of 34.21 percent, however, district Sanghar maintained its top position up till now as over 1.3 million bales have reached ginneries in the district.

**COTTON EXPORTS (BOP) BY COMMODITY COMPARISON JAN-APRIL 2010-2016** Thousand US \$

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC
2010	305,17	266,891	315,590	303,639	270,893	283,878	274,882	302,260	273,538	350,367	378,421	412,830
2011	374,723	390,791	540,272	479,097	469,438	511,918	418,194	380,312	410,152	364,602	387,736	405,613
2012	391,623	416,350	466,703	431,332	477,673	396,615	417,749	419,289	385,037	441,262	407,905	377,203
2013	439,955	407,505	435,354	419,535	451,494	415,120	453,665	452,809	463,121	481,511	413,415	460,101
2014	433,684	355,786	390,032	413,591	405,146	399,883	358,329	404,173	404,664	392,727	330,903	413,374
2015	386,442	347,857	427,063	372,355	374,044	377,138	350,125	310,648	369,987	348,333	317,696	325,956
2016	304,502	277120	324030	279452	289090							

Source: SBP

**CAUSES:**

Though the agricultural sector is facing problems in Pakistan yet the major chunk of money comes from this sector. Following are the major causes of agricultural problems in Pakistan which disturb the agricultural growth or development in Pakistan.

- **Lack of Research & development (R&D) in cotton sector**

The lack of research & development (R&D) in the cotton sector of Pakistan has resulted in low quality of cotton in comparison to rest of Asia. Because of the subsequent low

profitability in cotton crops, farmers are shifting to other cash crops, such as sugar cane. In reality cotton production is decreasing each year. It is due to lack of proper R&D that has led to such a state. They further accuse cartels, especially the pesticide sector, for hindering proper R&D. The pesticide sector stands to benefit from stunting local R&D as higher yield cotton is more pesticide resistant. Issues regarding quality of seed, disease and pest attack may resolve by improving R&D. Low quality of seed, pest attack also cause the low yield per acre.

- **Lack of modernize equipment**

Owing old methods of cultivation and harvesting, Pakistan has low yield per acre that means the average crop in Pakistan is just 1/4th of that of advance states. Whereas, Nepal, India and Bangladesh are using modern scientific methods to increase their yield per acre. For this purpose, these states are using modern machines to improve their yield.

- **Water**

Water wastage is very high in our country. The archaic method of flood irrigation is still in practice in whole of the country which wastes almost 50 to 60 percent of water. A new irrigation system called drip irrigation system has been introduced in many parts of the world. This not only saves water but also gives proper quantity of water according to the needs of plants. Water logging and salinity is increasing day by day. No effective measures have been taken to curb it. As the storage capacity of the dams is decreasing so the water availability per acre is also decreasing. Therefore, the farmers are installing more and more tube wells to irrigate their crops. This is why salinity is becoming the major issue in most parts of Punjab and Sindh.

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- **Old means of communication**

The only mean of communication in rural areas is T.V or radio so it is urgently needed on the part of these mass communication resources to air the programmes related to the new agricultural techniques and allied sciences. But these programmes should be telecast in regional or local languages. Because of lack of guidance is the main reason of farmer

backwardness. The communication gaps between well qualified experts and simple farmers have not been bridged. Availability of these experts is not ensured in rural areas as they are reluctant to go there.

- **Soil Erosion**

No mechanism has been adopted to eradicate the soil erosion and even after harvesting nothing is done to improve or restore the soil energy. Therefore, the fertility of soil is decreasing day by day. The thickness of fertile layer of soil in Pakistan is more than 6 inches but the average yield is lower than other countries where layer of fertile soil is only 4 inches.

- **Under utilization of land**

Pakistan is rich in fertile land yet the land is being wasted in different ways. 79.6% million hectors of land is cultural where as only 20.43% million hectors is cultivated. The reason can be described in two points.

1. A major area is owned by feudal. It is difficult to manage such a huge area so only that part is cultivated which is easy to manage, the rest is left ignored.
2. The rise of industrialization has given threat to this sector. People are migrating to cities and cities are expanding, thus new towns and colonies are constructed on fertile lands.

The irrigation system of Pakistan needs improvement as about 67% of the land is irrigated with canals.

Apart from these issues the monopoly of Foreign Big Wigs and false policies of government cannot be ignored.

### **Solutions:**

1. A broad-based inquiry commission should be formed to analyze the cause of retardation in cotton production and productivity.
2. Pakistan should adopt biotechnology in seed breeding to produce hybrid seeds particularly BT seed varieties and immediate arrangements be made to replace the present poor quality deteriorated seed by new and promising varieties of seed.
3. The present set up of agriculture extension in provinces should be re organized on scientific lines to make them result-oriented.

4. Justification of keeping the existing research centers/ institutes/ organizations should be examined and these should be reorganized on the basis of real needs.
5. A monitoring cell should be established under Federal Ministry of Agriculture to examine the operation of different agriculture departments/institution with reference to performance of given targets.
6. All ginning units should be updated and modernized so as to improve quality of ginning and to standardize ginning system.
7. Cotton Standardization should be introduced immediately at ginning stage to improve lint quality to international standards.
8. Agricultural loan policies should be farmer-friendly and should be result-oriented as existing policies have become stale and unproductive.
11. Federal Seed Certification and Federal Seed Registration is approved but it should taken responsible steps in approving seeds as it has already approved 36 new kinds of seeds. Specially, those seeds should be banned which can create pest problem in near future. These seeds are of cotton mainly. International seed makers are providing those seeds which are not successful in our country as these seeds are not tested on our soil.
12. A new Agricultural policy must be framed in which following steps should be focused on.
  - Small farmer must be focused. The major problems of small farmers should be solved first.
  - Consumer friendly policy must be projected.
  - Productivity enhancement programme must be constituted to adjust and support prices.
  - Different Agricultural zones should be introduced. As Multan is famous for its Mangoes and citrus fruits so it must be made Mango, citrus zone by which Perishable products should be exported. This would enhance agro based industry and increase foreign reserves. Pakistan Agricultural storage & Services Corporation needs to take steps in this regard.
  - Corporate farming like giving lands to Mithels, Nestle and Multinational companies is also a good idea that will also help those who own a large area of fertile land but can't manage it.
13. More dams should be constructed on Indus, Jehlum and Chenab rivers. This will enhance the storage capacity of water and reduce the per acre cost of all the crops. This step will also

reduce the salinity chances of the lands as less tube well water will be flooded to the lands which cause salinity.

Keeping in view all the causes of cotton crises and its possible solutions, if constructive steps are not adopted the decline will further continue in future and the farmers will divert to other mode of productions i.e. sugar, wheat, rice etc.

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