

PRODUCTION AND TRADE SUBSIDIES AFFECTING THE COTTON INDUSTRY

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A REPORT BY THE SECRETARIAT OF THE INTERNATIONAL COTTON ADVISORY COMMITTEE WASHINGTON D.C, USA





PREFACE

Government support measures to the cotton sector have an important impact on the supply-demand balance and, consequently, prices. In fulfillment of its mandate "to collect, disseminate and keep complete, authentic and timely statistics and other information relating to world production, trade, consumption, stocks and prices of cotton", the Secretariat has issued annual reports on such measures since 1997/98.

While most of the data in this report originates from government agencies, we have also incorporated open-source information. The Secretariat diligently strives to provide comprehensive insights into the quantifiable impact of all government measures. We extend an invitation to countries to actively participate by contributing data or valuable insights to bolster data accuracy. We kindly request that any discrepancies identified in this report be brought to our attention by reaching out to Lorena Ruiz at lorena@icac.org. Your feedback is greatly appreciated and essential to our continuous improvement efforts.



Government Assistance to the Cotton Sector

The ICAC Secretariat began monitoring and reporting on government measures to the cotton industry in 1997/98. Since then, a robust negative correlation between subsidies and cotton prices has been observed. This correlation has demonstrated remarkable consistency throughout the years, reflecting the adaptability of government policies to the ever-changing cotton market:

- In periods of soaring cotton prices, subsidies have typically experienced a reduction.
- > Conversely, during times of depressed cotton prices, subsidies have seen an increase, serving as a safety net to support cotton farmers.

In 2019/20, the cotton market faced the adverse effects of the Covid-19 pandemic, which significantly reduced cotton demand, resulting in a notable drop in cotton prices. During this period, the Cotlook A Index plummeted to 71.3 cents per pound. Simultaneously, there was a substantial surge in subsidies, consistent with the established long-term trend.

Subsequently, in the 2020/21 and 2021/22 seasons, the development and widespread distribution of multiple Covid-19 vaccines, coupled with the relaxation of lockdowns and quarantine measures, spurred economic recovery. This, in turn, led to increased demand for commodities, driving cotton prices to higher levels. The Cotlook A Index surged from 84.96 cents per pound in 2020/21 to 131.68 cents per pound in 2021/22, representing an impressive 55% increase and marking the second-highest historical average.

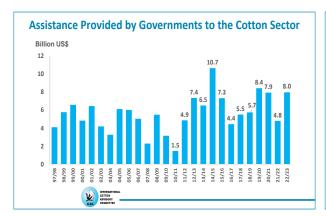
The 2022/23 season witnessed several price rallies in the cotton market. The peak cotton price was reached on August 30, 2022, hitting 135.25 cents per pound, while the lowest cotton price was recorded on 28 June 2023 at 72.26 cents per pound. Overall, international cotton prices experienced a 23% decrease, settling at 101.62 cents per pound for the season. This figure stands as the second-highest average observed in the past 12 years and is 35% higher than the long-term average.

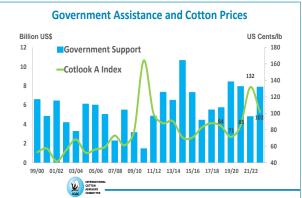
The ICAC Secretariat has estimated that total assistance to the cotton sector reached \$8 billion in 2022/23¹, up by 66% from the \$4.8 billion in 2021/22.

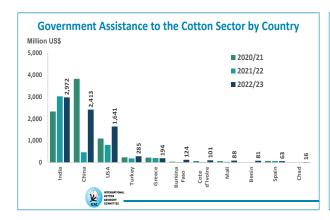
The share of world cotton production receiving government assistance increased from an average of 55% from 1997/98 through 2007/08, to an estimated 83% in 2008/09. From 2009/10 through 2013/14, this share declined to an average of 50%, before increasing again to 75% between 2014/15 and 2015/16. In 2016/17 and 2017/18, the average percentage of world's production receiving assistance decreased to 45%. From

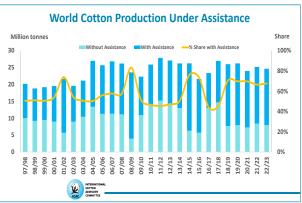
¹ Includes direct support to production, minimum support price mechanisms, Input subsidies, crop insurance subsidies and transportation subsidies. In some countries, minimum support price programmes were not triggered in 2022/23 because market prices were above the government intervention price levels.

2018/19 through 2020/21, the average percentage of world's production receiving assistance has remained at 70%. However, in 2021/22, the share decreased to 66% before increasing to 68% in 2022/23. The variances can be explained by the increase/decrease of both cotton production and international prices.









China

The government of China supports cotton production by controlling cotton import volumes and values, and by applying border protection measures based on quotas and sliding scale duties, with an effective tariff of 40% on cotton imported without a quota. In addition, China maintains a strategic reserve of cotton, serving as a national buffer stock, which is managed by the China National Cotton Reserve Corporation (CNCRC). China releases cotton to the market from the reserve through a system of auctions when there is a shortage, and replenishes the reserve in times of abundance, thus supporting prices.

Under the terms of its accession agreement to the WTO, China is obliged to establish a calendar year tariff-rate-quota (TRQ). The in-quota tariff is 1% for the first 894,000 tonnes of imports each calendar year. Additional import quotas are released by China as required. The additional quotas can carry a tariff of 1%, or quotas can be based on a sliding scale of between 5% and 40%. The purpose of the sliding scale is to ensure that the effective cost of imported cotton exceeds international market prices and thus boosts domestic prices paid to farmers in China. Since 2015/16, China has restricted imports by issuing only the TRQ import quotas, with the objective of reducing government stocks. As a result of government interventions and quotas, domestic cotton prices in China exceeded international prices five times during the past seven seasons.

The Secretariat uses the difference between domestic and imported cotton prices to estimate the border protection support to Chinese cotton due to government intervention. The price differential between the CC index (an index of mill-delivered cotton in China) and the FC Index L (an index of imported cotton arriving at China's main ports) adjusted to include value-added tax, port charges and transportation to mills, is used in the calculations. The estimated benefit (subsidy) received by producers in China due to government border protection has declined in recent seasons.

In 2018/19 the border protection by China was estimated at \$890 million (6.7) cents/pound). For the 2019/20 season, the difference between the FC and CC indexes declined to almost nothing, reducing the border-protection benefit to zero. In 2020/21, a higher price differential between domestic and imported cotton, coupled with higher production and a stronger yuan, contributed to a total border protection benefit of \$546 million (4.6 cents/pound). For the 2021/22 season, the gap between the FC and CC indexes decreased, effectively eliminating the previously existing border-protection benefit.

During the 2022/23 period, domestic cotton prices in China consistently stayed below international levels from mid-March 2022 to June 2023. It's noteworthy that global cotton prices averaged 101.62 cents per pound during this period. Although this figure represented a decrease compared to the previous season, it still marked the secondhighest average since 2011/12. Despite this context, China's efforts to protect its borders by regulating cotton imports had no observable impact on domestic cotton prices,

effectively making the border-protection benefit non-existent.

In addition, starting in the 2014/15 season, the Chinese government began providing direct subsidy payments to cotton producers in Xinjiang². These payments were calculated based on the difference between a predetermined target price for the season and the average market price. Essentially, this target price-based system³ guaranteed a fixed price level, ensuring that when the market price fell below the target level, the government compensated for the difference.

In March 2020⁴, the Chinese government announced an extension of the target price-based subsidy program for an additional three crop years (2020/21 - 2022/23) and capped the annual volume of Xinjiang cotton entitled to the subsidy at 5.47 million tonnes⁵. Furthermore, on 10 April 2023, the National Development and Reform Commission (NDRC) ⁶ and the Ministry of Finance jointly released a notification entitled, 'Enhancing the Implementation Guidelines for the Cotton Target Price Policy'. This official communication outlined the extension of the cotton target price policy in Xinjiang, which will remain in effect from 2023 to 2025⁷, with the target price set at 18,600 yuan per tonne. Simultaneously, policy implementation measures were improved to stabilise cotton production, promote quality improvement, and ensure the smooth operation of relevant mechanisms. This policy framework accounts for the recent cotton production situation in Xinjiang, as well as the conditions of local water and cultivated land resources. As a result, the annual volume of Xinjiang cotton production entitled to the subsidy was set at 5.1 million tonnes, down from 5.47 million tonnes in previous years.

Unlike earlier NDRC communications about cotton subsidies, the 2023 announcement refrains from acknowledging financial support to other cotton-producing provinces. The potential discontinuation or decrease of these subsidies is anticipated to lead to a further contraction in cotton area across these provinces.

The target price in the region of Xinjiang has remained consistent since 2016/17 at 18,600 yuan per tonne (approximately 120.66 cents per pound at the average seasonal exchange rate in 2022/23). The CC Index, representing the domestic cotton price, surged from 103.54 cents per pound in 2020/21 to 146.94 cents per pound in 2021/22, only to decline to 103.17 in 2022/23. This indicates a 30% drop from the previous season but remains the third-highest average price since 2018/19. Similarly, the Chinese yuan weakened against the US dollar, rising from 6.48 yuan per dollar in 2021/22 to 6.99 yuan per dollar in 2022/23. By calculating the difference between the target price and the

² The NDRC sets a yearly ceiling volume entitled to the subsidy for Xinjiang. The quantity is set to be 85% of the averaged NSB certified national cotton production from 2012 to 2014.

³ The target price was set at 19,800 yuan/tonne in 2014/15 and 19,100 yuan/tonne in 2015/16.

⁴ https://www.chinacoop.gov.cn/subStation/nzmmj/news.html?aid=1742287&subId=2551

⁵ The volume ceiling is estimated at 5.47 million tonnes per year, based on lint production data during 2012-2014.

⁶ Notice on improving the cotton target price policy (Development Reform Price [2023] No. 369). 关于完善棉花目标价格政策的通知 发改价格〔2023〕369号. https://zfxxgk.ndrc.gov.cn/web/iteminfo.jsp?id=20221. Differing from previous NDRC statements concerning cotton subsidies, the 2023 announcement notably excludes any mention of financial support for cotton-producing regions outside of Xinjiang.

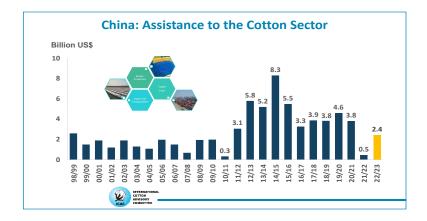
⁷ Notice on the issuance of the "Xinjiang Production and Construction Corps Cotton Target Price Policy Implementation Plan for 2023-2025. http://www.xjbt.gov.cn/c/2023-07-04/8288039.shtml

average CC index, it is estimated that direct subsidies paid to producers in Xinjiang amounted to \$2.08 billion (equivalent to 13.5 cents per pound) in 2022/23.

In the 2014/15 crop year, a fixed subsidy of 2,000 yuan/tonne (approximately 13 cents/pound at the average seasonal exchange rate in 2022/23) was established in cotton-producing areas of other provinces⁸. In subsequent years, the per-tonne subsidy has been set at 60% of Xinjiang's target price, with a maximum limit of 2,000 yuan/tonne.

Xinjiang's cotton production accounts for 90% of China's total cotton output. After undergoing the ginning and grading processes within Xinjiang, the majority of cotton bales are subsequently transported to China's eastern provinces, where the bulk of the domestic textile industry is located, for processing into yarn. It is estimated that roughly 80% of Xinjiang's cotton remains within the autonomous region, destined for yarn production. The Chinese government continues its practice of offering transportation subsidies for the movement of cotton from Xinjiang to mills in eastern and southern China⁹. These subsidies are contingent upon the verification of transportation records or bills of lading by government authorities, with payments typically disbursed to eligible enterprises in the subsequent year. It is estimated that this transportation subsidy totalled \$313 million in 2020/21 and \$317 million in 2021/22, before decreasing to \$185 million in 2022/23. Additionally, the government of China pays cotton growers a subsidy estimated at about \$150 million per year for using high-quality seeds.

The Secretariat estimates that that the total subsidies provided by the Chinese government surged to \$2.4 billion (equivalent to 18 cents per pound) in 2022/23, a significant increase from \$467 million (3.7 cents per pound) in 2021/22.



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⁸ Nine provinces including Shandong, Hubei, and Hunan.

⁹ Notice on Further Improving Policies and Measures for the Cotton and Textile and Garment Industry in the Autonomous Region. New Deal Office (2022) No. 61. General Office of the People's Government of Xinjiang Uygur Autonomous Region. September 20, 2022. The freight subsidy for cotton leaving Xinjiang is reduced from 500 yuan/tonne to 300 yuan/tonne. https://zcy.87188718.com/FourFlat/WebPolicyCloud/PrintWindow.aspx?id=246015



India has a minimum support price (MSP)¹⁰ system that becomes operational in seasons when market prices are below the MSP during at least part of those seasons, and functions through direct cotton purchases by the government-owned Cotton Corporation of India (CCI). CCI procures cotton via agricultural produce market committees (APMC). Additionally, the Maharashtra State Cooperative Cotton Growers Marketing Federation (MSCCGMF)¹¹ — a subagency of the Cotton Corporation of India in Maharashtra undertakes cotton procurement operations at MSP from farmers. Once seed cotton is processed, both cotton seeds and cotton lint are separately auctioned off by CCI, as these are their main sources of revenue. CCI sells the cotton lint to domestic mills or exporters, sometimes at a loss that is covered by the government of India.

Every year — before the start of the cotton season¹² — the government of India fixes the MSP of different varieties for Fair Average Quality (FAQ) grade seed cotton, stipulating minimum quality parameters on staple length and micronaire value.

In 2019/20, the government of India increased the MSP per 100 kg of seed cotton by 1.9% to Rs5,500, equivalent to about 100.2 cts/lb of lint¹³, at the season average exchange rate. According to official available data, CCI and the MSCCGMF together purchased a total of 1.76 million tonnes in 2019/20¹⁴ — the largest in five years and approximately more than one-third of the country's total production. According to its data¹⁵, CCI sold about 359,000 tonnes of the MSP cotton it acquired during that season, leaving a balance of nearly 1.6 million tonnes in CCI warehouses. The sales made by CCI during 2019/20 incurred estimated losses of \$100 million, which represent a subsidy by the government of India.

In 2020/21, the government of India increased the MSP per 100 kg of seed cotton by 5% to Rs5,775, equivalent to about 104.6 cts/lb of lint¹⁶, at the season average exchange rate. During 2020/21, domestic prices in India stayed below the MSP during the first months of the season. As a result, CCI and the MSCCGMF procured 2.04 million tonnes at MSP prices. According to its data¹⁷, CCI sold about 1.85 million tonnes of the MSP cotton it acquired during that season, leaving a balance of nearly 1.78 million tonnes in CCI

offices located in Vidharbha, Marathwada and Khandesb and Western Maharashtra Region of Maharashtra with 68 sub-zones and 523 procurement centres.

¹⁰ Government fixes MSP for 22 mandated crops which are paddy, jowar, bajra, maize, ragi, arhar, moong, urad, groundnut-in-shell, soyabean, sunflower, sesamum, nigerseed, cotton, wheat, barley, gram, masur(lentil), rapeseed/mustard, safflower, jute and copra. 11 MSCCGMF has been appointed as the state government's chief agent under section 42 of the Act. MSCGMF has 12 Zonal

¹² Crop year in India begins in October and ends in September.

¹³ It does not take into account the market value of the cotton seed that is recovered by the CCI. It is estimated that the actual procurement value of lint after deducting cotton seed value comes to 78.25 cents/lb.

¹⁴ Minimum Support Price Operation: CCI 8,442,000 bales (170 kgs) plus MSCCGMF 1,940,219 bales (170 kgs). https://cotcorp.org.in/msp.aspx.

¹⁵ https://cotcorp.org.in/financeresult.aspx

¹⁶ It does not take into account the market value of the cotton seed that is recovered by the CCI. It is estimated that the actual procurement value of lint after deducting cotton seed value comes to 82.3 cents/lb.

17 Detailed Financial Results from 2012-2013 Onwards. The Cotton Corporation of India. https://cotcorp.org.in/financeresult.aspx

warehouses. The sales made by CCI during 2020/21 incurred estimated losses of \$903.1 million, which represent a subsidy by the government of India.

In 2021/22, the MSP per 100 kg of seed cotton increased by 3.5% to Rs5.975¹⁸, equivalent to about 105.2 cts/lb of lint19, at the season's average exchange rate. Throughout the 2021/22 season, domestic cotton prices in India remained significantly above the MSP level, resulting in CCI not procuring any cotton from farmers at MSP prices. Nevertheless, CCI has reported estimated MSP losses of \$89.8 million²⁰, which represent a subsidy provided by the government of India.

In 2022/23, the MSP per 100 kg of seed cotton was raised by 6% to Rs6,330²¹, equivalent to about 103.3 cts/lb of lint²², at the season average exchange rate. Throughout the 2022/23 season, domestic cotton prices in India remained significantly above the MSP level, leading to CCI not procuring cotton from farmers at MSP prices. However, CCI has reported an MSP loss, reimbursable by the government of India, totalling \$680,000²³.

Cotton farmers in India also benefit from fertiliser subsidies²⁴ from their government²⁵. The Central Government establishes and regulates the maximum retail price (MRP) for urea, but this does not apply to decontrolled fertilisers²⁶. Manufacturers of decontrolled fertilisers have the flexibility to set prices for their products based on current market conditions. According to available official data, fertiliser subsidies in India increased from Rs43.9 billion (\$700 million) in 1990/91 to Rs1.39 trillion (\$18.8 billion) in 2020/21. In the subsequent years, the government of India allocated substantial budgets for fertiliser subsidies, with approximately Rs1.5 trillion (\$20.3 billion)²⁷ in 2021/22 and Rs2.55 trillion (\$31.2 billion) in 2022/23²⁸.

The ICAC Secretariat estimates that fertiliser subsidies for the cotton sector rose from \$1.02 billion in 2019/20 to \$1.4 billion in 2020/21, \$2.9 billion in 2021/22, and \$2.97 billion in 2022/23. Cotton's share of the total fertilizer subsidy programme in India averaged

¹⁸ Variety Shankar-6/10, Length 27.5 mm - 29.0 mm, Micronaire 3.6 - 4.8.

¹⁹ It does not take into account the market value of the cotton seed that is recovered by the CCI. It is estimated that the actual procurement value of lint after deducting cotton seed value comes to 83.2 cents/lb. ²⁰ MSP loss reimbursable by govt. of India equivalent to 6.8 billion rupees in 2021/22.

²¹ Variety Shankar-6/10. Length 27.5 mm - 29.0 mm, Micronaire 3.6 - 4.8. https://cotcorp.org.in/Writereaddata/Downloads/MSP%20Order.pdf

²² It does not take into account the market value of the cotton seed that is recovered by the CCI. It is estimated that the actual procurement value of lint after deducting cotton seed value comes to 83.2 cents/lb.

²³ MSP loss reimbursable by govt. of India equivalent to 56 million rupees in 2022/23.

²⁴ Three major nutrients are primarily used: Nitrogen (N), Phosphatic (P), and Potassic (K). The government subsidises fertilisers through subsidy for urea (containing N fertiliser), and nutrient-based subsidy for P and K fertilisers.

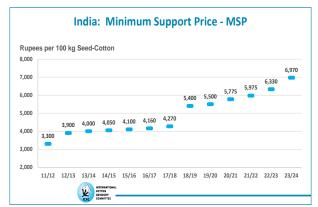
²⁵ Under the Nutrient Based Subsidy (NBS) scheme, which is being implemented since April 2010, a fixed rate of subsidy (in Rs per kg basis) is announced for nutrients namely Nitrogen (N), Phosphate (P), Potash (K) and Sulphur (S) by the government on an annual basis. Urea is the only controlled fertilizer in India, which means that its production, distribution and pricing are regulated by the government. The government fixes a uniform sale price (USP) for urea, which is much lower than its cost of production. The Centre fixes the maximum retail prices and reimburses the difference between the maximum retail price and production cost in the form of a subsidy. The Scheme is wholly financed by the Government of India through budgetary support. https://www.fert.nic.in/phosphatic-and-potassic-pk-policy

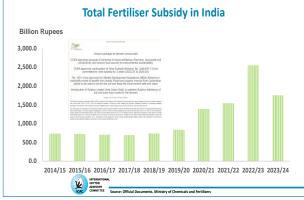
²⁶ https://www.fert.nic.in/phosphatic-and-potassic-pk-policy

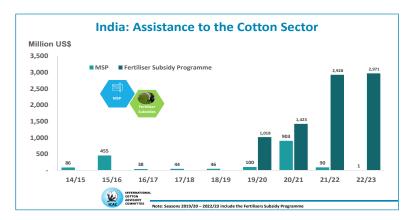
²⁷ Out of this allocation, nearly 70% was given to farmers in the form of urea, while the remaining 30% covered nutrient-based

²⁸ Press Information Bureau, Government of India. https://pib.gov.in/PressReleaselframePage.aspx?PRID=1935896

about 10% from 2019/20 to 2022/23.







UNITED STATES

The US 2018 Farm Bill has been in effect during the past five crop years²⁹. The bill includes the continuation of the designation of seed cotton (unginned upland cotton that includes both lint and cottonseed) as a covered commodity under the Title 1 Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC) programmes. Coverage of seed cotton under these programmes was established by the Bipartisan Budget Act of 2018, enacted in February 2018 and was effective for the 2018/19 season. The 2018 Bipartisan Budget Act changes, continued in the 2018 Farm Bill, marked a significant shift in farm policies associated with historical cotton production by removing the production link to payments on those base acres, known as generic acres, under the 2014 Farm Bill. Owners of seed cotton base are eligible for ARC or PLC programs payments triggered by

²⁹ The "Agriculture Improvement Act of 2018," which is the existing Farm Bill, will reach its expiration date on September 30, 2023. This legislation currently provides provisions for the 2023 crop year.

the effective reference price or revenue benchmark on the same basis as for base acres for other covered commodities for programmes, which began under the 2014 Farm Bill. However, the payments, if any, are decoupled from actual planting decisions since they are tied to historical, and not current, cotton acreage and yields. Also, the cotton-specific STAX insurance programme instituted in 2014 continues. However, cotton acreage enrolled in the ARC/PLC programme cannot also be insured under the STAX program.

Cotton producers continue to have access to support under the 2018 Farm Bill through both the marketing assistance loan program and subsidised premiums for crop insurance products.

The effective reference-price-based program, PLC, is similar to the counter-cyclical payments programme under the 2008 Farm Bill and has been in place for other covered commodities since the 2014 Farm Bill. The PLC program makes a payment to owners of historical base acres (now at a rate of 85% of base acres) when the market price, or Marketing Year Average (MYA) price, for a commodity falls below the effective reference price. Seed cotton MYA price is a weighted average of the upland cotton lint price and the cottonseed price. The PLC reference price for seed cotton is set in the 2018 Farm Bill at 36.7 cents per pound and the floor price is at 25 cents per pound. The effective reference price is determined annually using 85% of the five-year average of prices and may range between the reference price and 115% of the reference price. To calculate the payment, a historically based payment yield has to be established³⁰. The seed cotton payment yield will be a historical lint yield associated with the base acres multiplied by 2.4. Payment is made when the effective price exceeds the higher of the MYA price and the price floor.

The ARC-CO programme provides income support payments based on the difference between actual revenue and a benchmark revenue, both at the county level (a county is a unit of government in the United States; there are about 700 counties that produce cotton). Owners of farms with base acres select ARC or PLC on a commodity-bycommodity basis. The ARC-CO payments are issued when the actual county seed cotton revenue is less than the ARC-CO county seed cotton benchmark guarantee, calculated using a moving five-year Olympic average (excluding the years with the highest and the lowest values) of county yields and national prices. ARC-CO payments are based on 85% of the farm's historical base acres of the covered commodity when actual county revenue is below 86% of the county benchmark revenue, capped to be no more than 10% of the benchmark revenue value.

Initial estimates for the PLC/ARC enrolment and actual payments were made based on available data published on the USDA FSA site³¹. PLC/ARC payments for seed cotton historical base are subject to the payment limit of \$125,000, applicable to all covered

³⁰ The national average 2020 PLC yield for upland cotton (lint) was set at 728 pounds per acre. The PLC yield update under the 2018 Farm Bill starts with the 2020 crop.

³¹ https://www.fsa.usda.gov/programs-and-services/arcplc_program/arcplc-program-data/index

commodities (other than peanuts), with the adjusted gross income test set unchanged at \$900,000. PLC/ARC payments totalled \$976 million for 2019/20³², \$474 million for 2020/21³³, and \$5.8 million for 2021/22³⁴. PLC/ARC payments are estimated to be \$110 million for 2022/23 — higher than for 2021/22 due to very low yields in some counties that triggered ARC payments.

The Marketing Assistance Loan Programme (MALP)³⁵ continues with a marketing loan rate for upland cotton based on the world cotton price, calculated as the simple average of the adjusted prevailing world price (AWP) for the two immediately preceding marketing years (announced on 1 October, preceding the next domestic plantings).

However, it cannot be lower than 98% of the loan rate established for the preceding marketing year for base-quality cotton. In addition, the loan rate cannot be less than 45 cts/lb or higher than 52 cents/pound. Under MALP, upland cotton producers are eligible for a loan deficiency payment (LDP)³⁶, certificate exchange gains, or marketing loan gains (MLG). Commodity certificate exchange gains and marketing loan gains provide benefits to producers by allowing them to repay short-term commodity loans at market prices (AWP) when those prices fall below the loan rate. Producers who choose not to take out commodity loans can receive the same benefit as an LDP, a direct payment equal to the difference between the market price (AWP) and the loan rate. For the 2019/20 crop year, LDP payments for upland cotton amounted \$14.6 million, while and MLGs³⁷ reached \$200.4 million. In the 2020/21 crop year, LDP³⁸ payments for upland cotton totalled \$6.3 million, and MLGs³⁹ amounted to \$2.6 million. Based on average market prices, there were no LDPs or MLGs for upland cotton during the 2021/22 and 2022/23 crop years.

In addition, the US government provides support to cotton producers through subsidised crop insurance to protect producers against crop yield and revenue losses. This multiperil crop insurance covers declines in crop yields due to natural causes of loss, such as weather, pests, and fire. The insurance is sold to farmers through private insurance companies, although the Risk Management Agency (RMA) of the US Department of Agriculture subsidises a percentage of the premiums. On average, crop insurance policies are purchased for more than 90% of planted cotton acreage.

The crop insurance programme is statutorily mandated to be actuarially sound, meaning premium rates are to be set so that total premiums cover total indemnities over time. Underwriting gains and losses are allocated between participating private insurance

³² https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/arc-plc/2019/pdf/2019_arc_plc_payments.pdf

³³ https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/arc-plc/2020/pdf/2020_arc_plc_payments.pdf

³⁴ https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/arc-plc/pdf/2021_arc_plc_payments_2023_0504.pdf

³⁵ Marketing Assistance Loans (MAL) and Loan Deficiency Payments (LDP) are marketing tools available to producers beginning upon harvest or shearing.

³⁶ A producer who is eligible to obtain a MAL, but who agrees to forgo the MAL, may obtain an LDP under certain market conditions. The LDP rate equals the amount by which the applicable loan rate where the commodity is stored exceeds the effective MAL repayment rate for the respective commodity.

³⁷ Includes certificate exchanges gains and cash redemptions

³⁸ https://apps.fsa.usda.gov/sorspub/reports/web/public/ldp-all-national

³⁹ https://apps.fsa.usda.gov/sorspub/reports/web/public/activity-gain-state-psl82r

companies and the government according to formulas contained in the reinsurance agreement between the parties. In 2021/2240, cotton insurance premium subsidies totalled \$725.4 million, compared to \$593.8 million in 2020/21. For the 2022/23 season, cotton insurance premium subsidies are estimated at \$1.12 billion.

The STAX insurance programme⁴¹ is also administered by RMA and was available in 2018/19 and 2019/20 for upland cotton producers, except on farms with seed cotton base enrolled in the ARC/PLC programme for that year. STAX provides upland cotton producers with premium subsidies on the purchase of insurance policies that cover 'shallow' revenue losses — those below the level generally covered by standard crop insurance policies. Producers may use this programme alone or in combination with existing underlying crop insurance. Under STAX, an indemnity is triggered if the actual revenue in a county falls below the insured level of coverage, up to 90% of the expected revenue. STAX provides coverage for shortfalls between 10% and 30% of expected revenue; producers may select coverage in 5% increments. The federal government subsidises about 80% of the premium.

In 2018/19, premium subsidies provided under STAX⁴² totalled \$140.7 million. STAX premium subsidies declined to \$34.84 million and \$13.97 million in 2019/20 and 2020/21, respectively. In the 2021/22 crop year, STAX premium subsidies increased to \$69.74 million. For the 2022/23 crop year, STAX premium subsidies are estimated at \$376.3 million. In addition, the federal government provides an administrative and operating expense payment to participating private insurance companies for the delivery and servicing of crop insurance products, including STAX.

The extra-long staple (ELS) competitiveness programme⁴³ provides a payment to exporters and domestic users of US Pima when, for four consecutive weeks, average quotes for comparable foreign growth (LFQ) are lower than US Pima quotes, and the adjusted LFQ (the LFQ adjusted for transportation between the US and Far East) is less than 113% of the current crop year loan rate level for ELS. In the 2019/20 crop year, the ELS cotton competitiveness payment programme totalled \$7.91 million, decreasing to \$3.32 million in 2020/21. There were no ELS competitiveness payments during the 2021/22 season. Looking ahead to the 2022/23 crop year, the ELS competitiveness payments are estimated at \$38.44 million.

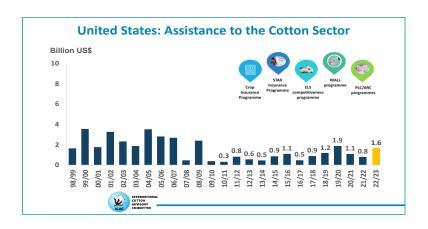
The sum of all types of support tied to planted cotton that are provided to US producers — including crop insurance, STAX, and the ELS competitiveness programme — is estimated at \$1.53 billion in 2022/23, compared to \$620 million in 2019/20 and \$795

https://www.rma.usda.gov/SummaryOfBusiness.
 Information as of 04 September 2023.
 The Stacked Income Protection Plan (STAX). STAX Insurance Plan (RP or RPHPE). Stax provides protection against loss of revenue due to an area level production loss, a price decline, or a combination of both.

⁴² Most of STAX policies were purchased in combination with an underlying standard crop insurance policy.

⁴³ https://www.ams.usda.gov/services/warehouse/cotton-program

million in 2021/22. PLC/ARC⁴⁴ payments — which are not tied to planted cotton — totalled \$473.8 million in 2019/20, \$5.8 million in 2021/22, and \$110 million in 2022/23.



EUROPEAN UNION

Greece and Spain are the major cotton producers in the EU⁴⁵. For production aid (the crop-specific payment for cotton as laid down in Section 3, Subsection 2, Article 38 of Regulation (EU) No 2021/2115 OF the European Parliament and of the Council), the maximum base areas are set at 250,000 ha for Greece and 48,000 ha for Spain⁴⁶. To be eligible for aid, the area must be:

- Located on agricultural land authorised by EU member states for cotton production,
- Sown under authorised varieties, and
- Be harvested under normal growing conditions.

The aid is paid for cotton of sound, fair, and merchantable quality. It is paid per ha of eligible area by multiplying fixed reference yields by the fixed reference amounts for each country. To calculate the aid, the seed cotton yield per ha is fixed at 3.2 tonnes/ha for Greece and at 3.5 tonnes/ha for Spain. The reference amounts per ha are fixed at 229.37 euros for Greece and 354.73 euros for Spain⁴⁷. In case farmers are members of an

⁴⁴ The Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) payments are based on historical acres rather than current planted acres. Both ARC and PLC provide income support to farmers with cotton base, whether or not they are producing cotton, when market prices or average county revenues for seed cotton are below the statutory effective reference price or county benchmark revenue for prolonged periods. It is important to note that the USDA notified these payments together with other historical base acre payments as nonproduct specific outlays.

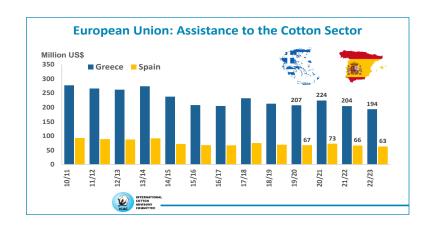
⁴⁵ Changes were introduced in the EU Common Agricultural Policy starting in 2009/10. As before, cotton producers receive 65% of EU support in the form of a single decoupled payment (income aid) and the remaining 35% in the form of an area payment (coupled, or production aid).

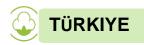
⁴⁶ Regulation (EU) No 2021/2115 of the European Parliament and of the Council. Base areas, fixed yields, and reference amounts. Article 38. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02021R2115-20230101

⁴⁷ Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021. Article 38. https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02021R2115-20230101

approved inter-branch organisation⁴⁸, the aid per ha referred to above is increased by an amount of 2 euros per ha. If the eligible area exceeds the maximum base area in a given year, the aid per hectare is reduced proportionally.

In the 2022/23 season, the total amount of direct subsidy to production provided by the European Union decreased to \$256.5 million (33.8 cents/pound), down from \$270.9 million (34.4 cents/pound) in 2021/22. This decrease is primarily attributed to a stronger US dollar relative to the euro.





The government of Türkiye pays a premium⁴⁹ per kilogram of seed cotton to producers. In the past, the premium for seed cotton produced from certified seeds was higher than that from non-certified seeds. No premium has been paid for non-certified seed since 2012/13.

In October 2020, the government of Türkiye increased the premium paid to farmers for seed cotton produced from certified seeds by 37.5% — from 0.8 lira (TRL)/kg in 2019/20 to 1.1 lira (TRL)/kg in 2020/21⁵⁰. The premium remained unchanged in 2021/22. In September 2022⁵¹, the premium paid to farmers for seed cotton produced from certified seeds increased to 1.6 lira (TRL)/kg in 2022/23.

Assuming that 98% of Turkish cotton production is produced from certified seeds and that all cotton producers applied for the premium, the Secretariat estimates that the total

⁴⁸ Approved interbranch organisation means a legal entity made up of farmers producing cotton and at least one ginner, as referred to and ruled under Regulation (EU) No 2021/2115 of the European Parliament and of the Council, Article 40. "In the case of farmers who are members of an approved inter branch organisation, the crop-specific payment for cotton for has that are eligible within the base area laid down in Article 38(1) shall be increased by an amount of EUR 2."

⁴⁹ The deficiency payments known as "premium payments" are designed to cover the difference between the target price and market price of the product. The target price is calculated based on production and marketing costs.

⁵⁰ The increase was announced after the harvest was nearly completed for crop year 2020/21

⁵¹ https://www.resmigazete.gov.tr/eskiler/2022/10/20221020-8.pdf

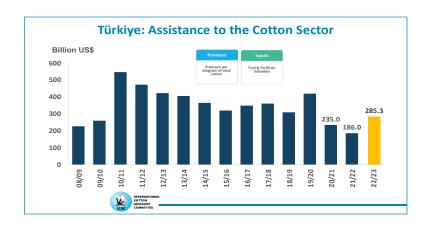
premium payments provided to cotton producers in Türkiye increased to \$207 million (10.8 cents/pound) in 2022/23, compared to \$158.1 million (8.8 cents/pound) in 2021/22. Although there is an increase of 98% in total premium payments in Turkish lira, the depreciation in the value of the national currency — from 13.07 TRL/dollar in 2021/22 to 19.82 TRL/dollar in 2022/23 — resulted in a smaller increase in US dollars (+31%).

In addition, cotton farmers in Türkiye also benefit from fuel and fertiliser subsidies from their government⁵². Fuel subsidies increased from 680 TRL/ha in 2021 to 2,500 TRL/ha in 2022. Fertiliser subsidies also increased from 80 TRL/ha to 210 TRL/ha over the same period of time.

The Secretariat estimates that the total input subsidies provided to cotton producers in Türkiye reached \$78.4 million in 2022/23, up from \$27.9 million in 2021/22.

Furthermore, within the scope of the policies of the Ministry of Agriculture and Forestry regarding the promotion and support of organic farming activities, the government of Türkiye provides a subsidy for organic cotton production. It is estimated that total payments for organic cotton producers in Türkiye reached \$21,997 in 2022/23.

The Secretariat estimates that total subsidies related to cotton provided to Türkiye producers totalled \$285 million (14.6 cents/pound) in 2022/23, up from \$186 million (10.1 cents/pound) in 2021/22.



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⁵² https://www.resmigazete.gov.tr/eskiler/2021/11/20211111-5.pdf



SUB-SAHARAN AFRICA

Sub-Saharan countries recognise the vital role of the agricultural sector in both economic and social development. To support this sector, governments allocate substantial resources through input subsidy programs. These initiatives aim to provide farmers with essential resources like seeds, fertilisers, and pesticides while also offering subsidies to bolster farm-gate prices.

The government of Mali increased the price of seed cotton from 200 CFA francs per kg in 2020/21 to 280 in 2021/22 and 285 CFA francs per kg in 2022/23. In the 2020/21 season, the government of Mali⁵³ provided a subsidy of 35 billion CFA francs (\$63.8 million) to the cotton sector. This support was given to farmers in the form of a bonus on each kg of seed cotton sold to the CMDT⁵⁴. In 2021/22, the Minister of Rural Development provided a total of 17 billion CFA francs (\$30.1 million) to the agricultural sector to subsidise input prices. In 2022/23, Mali allocated a total of 54.9 billion CFA francs (\$88.3 million) to the cotton sector to support fertiliser prices⁵⁵.

In Benin, the government provided an estimated support of 50 billion CFA francs (\$80.5) million) to the cotton sector in the 2022/23 season. The government of Benin established a subsidised price of 14,000 CFA francs for a 50 kg bag of fertiliser.

In the 2021/22 season, the Burkina Faso government allocated a substantial 12.7 billion CFA francs (\$22.5 million) in subsidies aimed at supporting cotton farmers by facilitating their access to fertilisers and pesticides. In 2022/23⁵⁶, the government provided an exceptional financial support of 76.8 billion CFA francs (\$123.6 million) with the specific goal of ensuring that cotton producers had affordable access to essential agricultural inputs⁵⁷.

In recent years, the government of Côte d'Ivoire has adjusted its cotton policy to encourage cotton production by focussing on supporting farm gate prices for farmers rather than providing subsidies for fertilisers and inputs that can be used for other crops. In the 2020/21 season, Côte d'Ivoire allocated \$69 million to support cotton farmers. The following year, 2021/22, the government's expenditure decreased to \$17 million. However, in the 2022/23 season, a severe jassid attack caused the loss of more than half of the cotton crop. As a result, the Ivorian government provided total support of \$91 million to cover the cost of inputs for producers who were not able to pay their credits due to the drop in production.

⁵³ https://www.agenceecofin.com/coton/0906-77343-mali-le-gouvernement-accordera-une-subvention-de-35-milliards-fcfa-a-lafiliere-coton#:~:text=(Agence%20Ecofin)%20%2D%20Au%20Mali,baisse%20observ%C3%A9e%20durant%20ladite%20saison.

⁵⁴ Compagnie Malienne pour le Développement Textile

⁵⁵ The government of Mali established a maximum price for urea equivalent to 12,500 CFA francs for 50kg bag , while the market retail price per 50kg bag of Urea was at 33,750 CFA francs.

⁵⁶ https://www.sofitex.bf/2023/07/06/bilan-aicb-campagne-cotonniere-2022-2023/

⁵⁷ The government set a maximum price of 16,000 CFA francs for a 50kg bag of fertilizer, while the MRP was at 37,000 per bag

In Chad, the government provided a total support of 3 billion CFA francs (\$5.5 million) to subsidise agricultural inputs for cotton farmers⁵⁸. No information is publicly available on the amount of support provided to the cotton industry in 2021/22. The financial support to subsidise agriculture inputs for farmers in 2022/23 totalled 10 billion CFA francs (\$16.4 million)⁵⁹.

Senegal's government provided a total of 900 million CFA francs (\$1.7 million) in the 2020/21⁶⁰ season to support farm gate prices for cotton farmers. There is no detailed information on the total subsidies paid to the cotton sector in the 2021/22 season. For 2022/23⁶¹, it has been reported that the government's total expenditure on agriculture is estimated at 70 billion CFA francs (\$124 million) — with \$73 million allocated for fertilisers, \$21 million for peanut seeds, \$21 million for seeds of other crops, and \$9 million for the agricultural and livestock competitiveness programme. Regrettably, details regarding the total budget allocated for cotton remain undisclosed and are not publicly available at this time.

In Zimbabwe, cotton stands as one of the nation's major cash crops, significantly bolstering both rural livelihoods and the national economy. The government has introduced a range of initiatives aimed at bolstering support for cotton farmers and fostering the growth of the cotton industry. Since 2015, smallholder farmers in Zimbabwe have enjoyed access to subsidised inputs, including seeds, fertilisers, and pesticides. Unfortunately, details regarding the total budget allocated for this policy remain undisclosed and are not publicly available at this time.



 $^{^{58}\} https://finances.gouv.td/index.php/le-ministere/le-ministre/item/587-cotontchad-le-retour-avec-un-soutien-massif-de-l-etat$

⁵⁹ https://levisionnairetchad.com/un-appui-considerable-de-letat-tchadien-a-la-filiere-coton/

⁶⁰ https://www.commodafrica.com/29-05-2020-au-senegal-le-cout-de-la-campagne-agricole-202021-sera-de-fcfa-60-milliards/

⁶¹ https://www.agenceecofin.com/agro/1003-95670-senegal-le-gouvernement-debloquera-70-milliards-fcfa-pour-financer-la-campagne-agricole-

^{2022/2023#:~:}text=Au%20S%C3%A9n%C3%A9gal%2C%20l'ex%C3%A9cutif%20consacrera,rapport%20%C3%A0%20la%20pr%C3%A9c%C3%A9dente%20saison

Table 1. Estimated Assistance Provided by Governments to the Cotton Sector⁶²

	2020/21			2021/22			2022/23		
Country	Lint Production	Average Assistance per Pound of Lint Produced	Total Assistance	Lint Production	Average Assistance per Pound of Lint Produced	Total Assistance	Lint Production	Average Assistance per Pound of Lint Produced	Total Assistance
	Thousand tonnes	US cents	US\$ Million	Thousand tonnes	US cents	US\$ Million	Thousand tonnes	US cents	US\$ Million
China	5,910	29.3	3,816.0	5,730	3.7	467.0	5,980	18.3	2,413.0
USA**	3,181	15.6	1,093.8	3,815	9.5	801.0	,	23.6	1,641.1
India	6,019	17.5	2,326.0	5,220	26.2	3,018.0	5,500	24.5	2,972.0
Turkey	656	15.9	230.1	833	10.1	186.0	887	14.6	285.3
Greece	321	31.7	224.1	305	30.4	204.5	305	28.8	193.6
Spain	50	65.9	72.8	52	58.1	66.4	39	72.8	62.9
Cote d'Ivoire	238	13.2	69.0	216	3.6	17.0	106	43.1	101.0
Mali	63	46.2	63.8	311	4.4	30.1	176	22.8	88.3
Burkina Faso	215	8.1	38.2	208	4.9	22.5	185	30.2	123.6
Chad	51	1.0	1.1	54	0.9	1.1	46	16.2	16.4
Benin			n.a			n.a	265	13.8	80.5
Senegal	8	9.7	1.7			n.a			n.a
Total	16,711	21.5	7,936.5	16,742	13.0	4,813.5	16,638	21.7	7,977.7



⁶² Includes direct support to production, border protection, minimum support price mechanisms, Input subsidies, crop insurance subsidies and transportation subsidies.

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USA assistance to cotton farmers includes ARC/PLC payments of \$474 million in 2020/21, \$6 million in 2021/22 and \$110 million in 2022/23 that are not tied to cotton production entirely and thus may be going to producers of other commodities or to idled land.

Table 2. Long-term Assistance Provided by Governments to the Cotton Sector

			Average
	Lint	Total	Assistance
Season	Production	Assistance	per Pound of
			Lint Produced
	Million Tonnes	US\$ Billions	US\$ cents
1997/98	20.18	4.11	9.2
1998/99	18.81	5.77	13.9
1999/00	19.19	6.59	15.6
2000/01	19.53	4.83	11.2
2001/02	21.67	6.45	13.5
2002/03	19.58	4.19	9.7
2003/04	21.13	3.27	7.0
2004/05	26.99	6.11	10.3
2005/06	25.68	6.01	10.6
2006/07	26.83	5.04	8.5
2007/08	26.18	2.29	4.0
2008/09	23.57	5.49	10.6
2009/10	22.31	3.16	6.4
2010/11	25.87	1.48	2.6
2011/12	27.86	4.87	7.9
2012/13	27.08	7.35	12.3
2013/14	26.22	6.51	11.3
2014/15	26.23	10.65	18.4
2015/16	21.64	7.32	15.3
2016/17	23.35	4.44	8.6
2017/18	26.96	5.51	9.3
2018/19	25.98	5.75	10.0
2019/20	26.23	8.43	14.6
2020/21	23.99	7.9	15.0
2021/22	25.18	4.8	8.7
2022/23	24.62	8.0	14.7