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Cotton sector reforms in Central Asia

— Cotton as ‘White Gold’ —

Cotton, the White Gold of Central Asian (CA5) countries, once represented a pillar of agricultural transformation, rural employment, and the spread of new technologies. The continued expansion of cotton in the 1960–80s caused the massive expansion of irrigated areas in this dry region. Cotton production was concentrated in collective farms linked to parastatal gins. During the Soviet Union cotton became the most strategic crop in Central Asia receiving priority in the allocation of inputs and resources by planning authorities. The ministries controlled cotton supply chains, including input and machinery supply, and issued production plans. Producer prices were fixed throughout the year, and the movement of seed cotton outside of designated growing areas was prohibited. In many parts of Soviet Central Asia, cotton played a vital role in the entire

economy, one could even speak of a ‘cotton’ economy.

— The cotton sector in CA5 countries (five countries of Central Asia) can be grouped into two models based on the level of state intervention. In the early 1990s, cotton became a critical source of export revenues for Uzbekistan, Turkmenistan, and Tajikistan to finance their industrial development. In Kazakhstan and Kyrgyzstan, where dependence on this crop was less pronounced, the governments aligned the changes in the cotton sector to the general economy-wide reforms. In Uzbekistan and Turkmenistan, where cotton occupied over half of the sown area, sectoral reforms had been careful and slow. Despite its importance, cotton cultivation in Central Asia, which in the 1980s accounted for over 10% of the global cotton area, has shrunk considerably [Table 1](#). This paper aims to focus on the most relevant aspects of the cotton sector reforms in the CA5 countries since the

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Table 1 — Harvested area of cotton in Central Asia

Country	Total harvested area, 1000 ha					Difference between 2018 and 1991	
	Average 1981–1990	1991	2000	2010	2018	1000 ha	%
Kazakhstan	127	116	152	134	133	16	14
Kyrgyzstan	37	26	34	26	23	–3	–10
Tajikistan	311	298	239	162	180	–118	–40
Turkmenistan	584	602	575	550	546	–56	–9
Uzbekistan	1,964	1,720	1,445	1,343	1,071	–649	–38
Total CA5	3,023	2,762	2,443	2,216	1,953	–809	–29
World	32,767	34,845	31,634	31,801	32,979	–1,866	–5

Source: FAOSTAT (2019) for 1992–2017 values; various statistical yearbooks for 1981–1991 and 2018

fall of the Soviet Union to summarise the major lessons that can be learned for the next wave of sectoral transformation.

————— **Competitive cotton supply chains in Kazakhstan, Kyrgyzstan and Tajikistan** —————

In Kazakhstan and Kyrgyzstan, the cotton sector reforms started already in 1990s and were linked to the land reform when the land of collective farms was distributed to individual farmers. [Table 2](#) The economic liberalisation of the cotton sector led to reduced state intervention and entry of private investors into the ginning and trading sectors. Contract farming became common, and gineries could directly provide inputs to farmers on credit (SADLER 2006). The calculation of producer prices was linked

to the world market price (POMFRET and CHRISTENSEN 2008). Competition between private gineries for cotton output in both countries has become bottom line for producers' access to higher prices and ensured that even small individual farmers benefited from private chain coordination (SADLER 2006, PETRICK et al. 2017). As the competition between gineries in Kazakhstan and Kyrgyzstan increased, so did the 'side-selling' of harvested cotton by farmers (PETRICK et al. 2017). To prevent side selling and to control cotton prices, the gineries arranged a **monopsony** to which the governments reacted later with re-integrated coordination of cotton supply chains. — Unlike Kazakhstan and Kyrgyzstan, the cotton sector reforms in Tajikistan were made only after pressure came from international organ-

Table 2 — Overview of cotton sector reforms

	Major cotton producer	Implementation of cotton contracts	Cotton pricing	Ownership of cotton gins
Kazakhstan	Individual farms of $\varnothing=10$ ha, in Turkistan province, 60% is machinery-harvested (2018).	Contract farming is common. Weak bargaining power of farmers. Various contract types can be negotiated.	Related to world market price, varies over time.	Private with domestic and foreign investments.
Kyrgyzstan	Individual farms of $\varnothing=1,2$ ha, in Jalalabad and Osh provinces (2017).	Contract farming is common. Weak bargaining power of farmers.	Related to world market price, varies over time.	Private with domestic and foreign investment.
Tajikistan	Individual farms of $\varnothing=3,8$ ha, in Sughd and Khatlon provinces (2017).	Weak bargaining power of farmers. The contracts are imposed by gins.	Related to world market price, varies over time.	Private with domestic and foreign investment.
Turkmenistan	Peasant associations of $\varnothing=2500$ ha, in all provinces except Balkan (2017).	State association via peasant associations.	Issued by the government, fixed for the entire year.	Gins are owned by the state association.
Uzbekistan	Individual cotton-specialized farms of $\varnothing=75$ ha, in all provinces, 55% of cotton area in clusters (2019).	Set either through parastatal gins or clusters according to farm locations. New clusters with direct farming.	Issued by the government as 'guaranteed' price, fixed for the entire year.	Gins are partly owned by the state and private domestic and foreign investors.

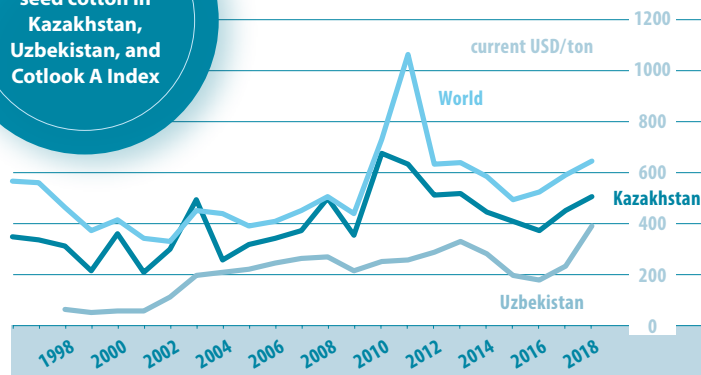
Note: \varnothing stands for average farm size

isations and donors (VAN ATTA 2009). By the early 2000s, almost all ginneries in Tajikistan were privatized. Yet, in contrast to Kazakhstan and Kyrgyzstan, state intervention into the sector has remained as the land reform led only to nominal farm individualization (HOFMAN 2018). Private gins received local monopsony rights for the purchase of cotton in a particular region. Continued control of cotton producers' decision-making by powerful interest groups culminated into the Cotton Debt Crisis in Tajikistan (HOFMAN 2018). As in Kazakhstan and Kyrgyzstan, the bargaining position of Tajik cotton growers is weak.

Monopolised supply chains in Uzbekistan and Turkmenistan

Uzbekistan and Turkmenistan, the largest cotton producers in Central Asia, took a different path after 1990. Until recently, the cotton sector reforms in Uzbekistan were of a much-restricted scope, in Turkmenistan the standstill was more extreme. **In both countries, the cotton sector remained among the least reformed sectors in the post-socialist era.** It strongly resembles a blend of Soviet-style central planning of production, state land allocation and procurement prices, as well as a sectoral monopoly of parastatal ginneries, input suppliers and cotton exporters. Cotton farmers were taxed via low government-stipulated procurement prices and control over the currency market (POMFRET 2008). The persistence of state control over the cotton sector has caused major economy-wide distortions and loss of efficiency in inputs and outputs markets, ginning and textile sectors, as well as underutilized export capacity in textiles and high-

1— The price for seed cotton in Kazakhstan, Uzbekistan, and Cotlook A Index



value crops. Potential income increasing added value was therefore not possible. — Acutely aware of pertaining inefficiencies in this sector, the Uzbek government initiated reforms in 2017 by converting supply chains into vertically-integrated textile companies called **cotton-textile clusters**. The new model legitimized the monopsony of textile companies to govern the distribution of inputs and machinery services to farmers within their territories, cotton procurement, processing, and exports. Where land was transferred to 'cotton clusters' a direct farming was introduced. The previous farmers were then hired to operate the cotton fields of cotton clusters. Competition between ginneries is not permitted and farmers are still bound to clusters. The prescribed specialisation of cotton clusters restrains farmers' freedom to choose crops and marketing channels. The formation of clusters has neither eliminated the production quota nor state control over cotton prices. — In Turkmenistan, state control over the cotton sector is strong with its produc-

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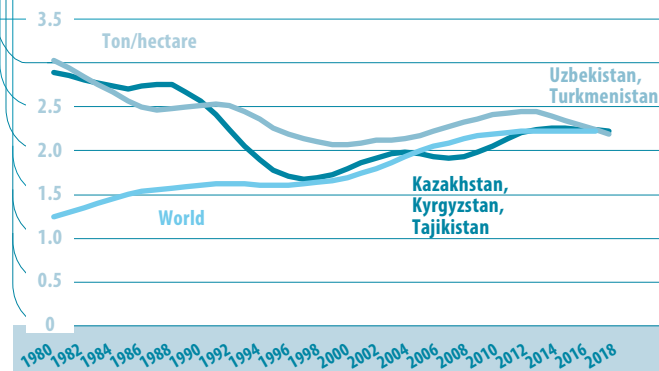
World and average CA5 cotton yields

tion in large peasant associations strictly regulated under the state production mandates, centralised price setting, production norms and monopolised marketing and input channels (POMFRET 2008). Private entry in textile sector

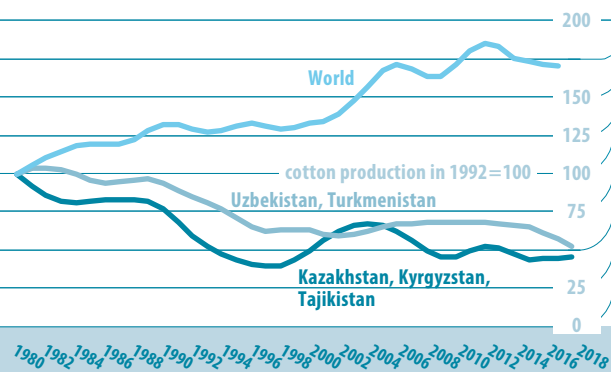
has been allowed to some extent. In practice, the value chains remain strongly regulated and monopolised, although reforms have been discussed for several years. In Turkmenistan and, since recently much less in Uzbekistan, **forced labour** mobilisation for cotton picking has been an issue in relations with the international community and has led to a loss of reputation for the countries. The progress made recently have been recognised by international organisations such as the International Labour Organization (ILO) and of the EU.

— Outcomes of cotton sector reforms —

While comparing seed cotton prices in Kazakhstan and Uzbekistan, [Figure 1](#) shows that the government of Uzbekistan has been taxing cotton producers by purchasing at prices below world market value. As the example of Kazakhstan shows, by eliminating taxation and allowing privately owned gins, the cotton reforms improved producer prices (SADLER 2006). The price difference between the two countries resulted in large amounts of Uzbek seed cotton being smuggled to Kazakhstan (and to Kyrgyzstan) and offered to local ginners for cash purchase without the provision of crop finance (SADLER 2006). In early 2000, as side selling became common practice among farmers in Kazakhstan, the ginners formed a procurement cartel to impose monop-



sonistic power, consequently, reducing farmers' share in the cotton value chain. Subsequent policies intended to rectify the situation contributed to the sector's decline in Kazakhstan (PETRICK et al. 2017). The drop in world cotton price after the 2011 price spike contributed to further downward spiralling of producer prices in 2012–16. Despite the cotton price increase since 2017, cotton prices in Uzbekistan are stipulated through administrative measures as 'guaranteed' prices. — The cotton sector throughout Central Asia is currently in decline. Not only cotton cultivation area, but also cotton yields have significantly declined in every Central Asian country compared to the level in the early 1980s. [Figure 2a](#) For Kazakhstan, Kyrgyzstan, and Tajikistan one can notice the recovery of cotton yields as farmers moved cotton cultivation to more suitable land. Tajikistan experienced the steepest decline in yields compared to the 1980s. In general, the cotton sector in Uzbekistan performed better than in other Central Asian republics, except Kyrgyzstan, where the cotton-producing farms have



been the smallest in Central Asia. In fact, Kyrgyzstan is the only Central Asian country where cotton yields have improved since 1991. — When measured in relative changes in total cotton output, the monopolised sectors performed better than the reformed ones. [Figure 2b](#) At first, the cotton sector reform was a success story in the three ‘reform countries’ Kazakhstan, Kyrgyzstan, and Tajikistan with the cotton cultivation area expanding rapidly as competition between the ginneries to secure volumes of seed cotton drove producer prices up. The cotton sector growth in Kazakhstan and Kyrgyzstan outperformed other crops and livestock production. This short period of resurgence illustrates the importance of competition between ginneries for sectoral growth. Although the cotton sector in Turkmenistan and Uzbekistan shrank in the 1990s, it stabilised later on. Along with the recent decentralization efforts in Uzbekistan, the cotton area has been further reduced by a decree, contributing to the production decline of about 1 million tons of seed cotton between 2016 and 2018.

—Recent reforms in the Uzbek cotton sector

The new waves of expected reforms in the cotton sector of Uzbekistan are among the central aspects of the government’s recent Agri-Food Development Strategy for 2020–30. In March 2020, the government liberalized the cotton market and abolished the state regulation of cotton production and price. The aim is to establish a competitive cotton supply chain with private ginneries and textile companies, with producer prices determined by the market, based on world market prices. It is expected that price liberalisation will stimulate farm incomes and sector performance, since the state purchase prices set below market price do not provide an incentive for production. A significant role in this process is placed on the cotton-textile clusters, which are expected to bring substantial efficiency gains to the sector by improving processing efficiency, offering farmers better access to inputs, investing in new machinery and textile equipment. Particularly, the clusters should adopt cotton combines and raise payments for cotton pickers. The clusters should explore foreign markets for textile products and increase export revenues.

—Important lessons

The outcomes of cotton sector reforms in Kazakhstan, Kyrgyzstan, and Tajikistan equally show that, without more pronounced land reform, freedom to farm and select marketing outlets, none of them can be set as a reference for Turkmenistan and Uzbekistan. However, they provide several valuable lessons to consider for the sector’s



long-term sustainable growth. — Price liberalisation and entry of private investors in the ginning sector had a positive effect on the sector's performance. Cotton production in the market-based competitive model expanded after private investors were allowed and higher producer prices were offered. This has not been the case for state-regulated monopolistic systems in Turkmenistan and Uzbekistan. Second, under liberalised prices, cotton is economically competitive with other high-value crops.

Cotton production will not vanish after the state quota abolishment nor under the 'laissez-faire' approach.

In fact, sectoral development strongly depends on prices received by cotton growers. Third, an export-oriented cotton value chain with free competition between gineries can benefit small producers. — The cotton sector reforms, however, did not strengthen the power of newly established individual farms. Cotton producers lack strong organisations through which they will either contract or own the ginning sector. Weak capacity to organise alternative marketing channels puts producers under the control of more powerful gineries. The impropriety of farmers' decision-making autonomy and low producer prices have already damaged the Tajik cotton sector. Increased access to credit, the introduction of private input suppliers, freedom to select marketing outlets supplemented with a strong organisation representing cotton growers' interests will be the key to the sector's growth.

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— Sources and credits —

p. 46 Cotton pickers, Fergana Valley, Uzbekistan © robertharding / Alamy Stock Foto

Figure 1 The price for seed cotton in Kazakhstan, Uzbekistan and Cotlook A Index, current USD/ton © Own Presentation. Source: Official statistical data.

Note: For Uzbekistan, average exchange rates from September to July in the parallel currency market were used to convert to annual prices in USD. 'World' price for seed cotton was calculated by dividing the Cotlook A Index by 3.

Figure 2 a) Worldwide and average cotton yields in Central Asia, t/ha b) Development of total cotton production, 1992=100 © Own Presentation.

Sources: Shend (1993) for 1980–91 for CA5, FAOSTAT (2019) for 1992–2017 for CA5 and 'World'

p. 52 Uzbekistan farmers inspect a cotton combine for field deployment, 2019 © Golib Sanaev