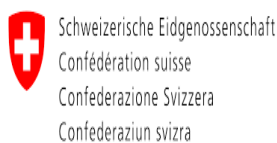POLICY DIALOGUE ON AGRICULTURE MODERNIZATION IN UZBEKISTAN

Cotton-Textile Clusters in Uzbekistan: Status and Outlook[1]

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WORLD BANK GROUP
Agriculture & Food

A.   INTRODUCTION

1.   **In February 2020 the Government of Uzbekistan (GoU) announced something, which many country's observers considered impossible even only several months ago – it announced the abolishment of the state production quota for cotton in 2020, with the decree and the resolution issued in early March 2020**[2]. This means that 2019 was the last year in the history of Uzbekistan when a cotton production target was set by the state and a wide range of administrative and legal measures were taken to meet it. This decision has a wide-ranging effect on Uzbekistan's socio-economic development, including on the elimination of forced labor use in cotton picking, a long-standing issue which has been difficult to fully resolve[3]. The decision to abolish production quota was largely possible due to the rise of private sector cotton-textile clusters, which now dominate cotton production and ensure a transition of the cotton value chain from plan to market. But their roles, achievements, and future are still contested.

2.   **This report reviews the progress achieved by cotton-textile clusters to contribute to the discussion about their current and future role**. This is the second report of the World Bank on this topic, following the review of cotton-textile clusters in 2018[4]. At that time, Uzbekistan had 15 clusters, which operated on 16 percent of cotton growing area. In 2019, there were already 75 clusters operating on 63 percent of cotton growing area. And, in 2020 there will be 92 clusters, covering 88 percent (886,000 ha) of the cotton growing area. The remaining 14 percent of the growing area or 148,000 ha will be cultivated by cotton farm cooperatives.

3.   **The 2018 report, which assessed only one year of fifteen clusters' operation, concluded that the way of how the clusters are organized and motivated can help leapfrog technical progress, modernize cotton value chain, and create more decent jobs in the textile sector, but with several covenants**. To fully realize these impacts the report recommended to:

   (i)   remove the state order system for cotton imposed on clusters;

   (ii)   provide more security to clusters and farmers within clusters; and

   (iii)   make the state support programs for cotton sector more market oriented, including the refraining from expectation that the organizers of cotton-textile clusters would deliver all kinds of public services – there are still services that should be delivered and financed by the state.

4.   **Many changes and reforms occurred since then**. Thus, the analysis of clusters in this report is preceded by the overview of the reforms. The following chapter presents the achievement of clusters in 2019. The chapter after that discusses the rationale of the cluster model in Uzbekistan, and the final chapter discusses their future.

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[2] See the Decree of the President of the Republic of Uzbekistan "*About the Program on Realization of the State Strategy 2017-2021 on Five Priority Directions in the Year devoted to the Development of Science, Education and Digitalization*" dated March 2, 2020, and the Resolution of the President of the Republic of Uzbekistan No. PP-4633 "*About the Measures on Wide Introduction of Market Principles in Cotton Sector*" dated March 6, 2020, the unofficial translation of which is in Annex 1 of this Report.

[3] According to the International Labor Organization, the use of forced labor in cotton picking is estimated to decline to 5.9 percent in 2019, from 6.7 percent in 2018, and 13.0 percent in 2017. The most experts believe that bringing this figure to zero would be impossible without elimination of the cotton production quota.

[4] The report (pp. 76-93) can be found under this link: https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_681372.pdf

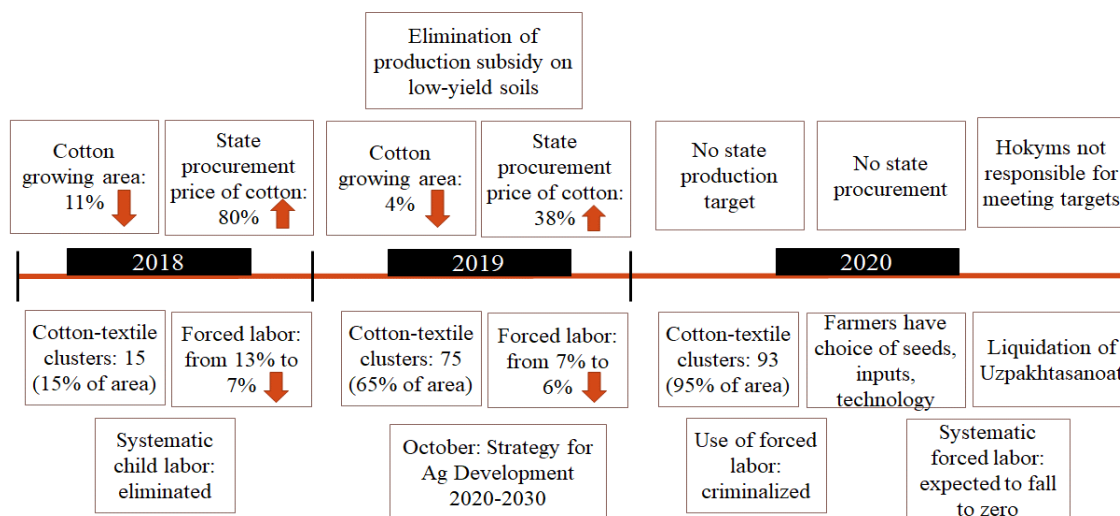## B.   OVERVIEW OF THE COTTON SECTOR REFORMS: 2017-2020

5.   **The state order system for cotton in Uzbekistan consists of several, closely interlinked 'buckets**.' They are the following:

(i)   crop placement

(ii)   production targets/quota

(iii)   state financing of cotton production and providing inputs

(iv)   reimbursement of costs for pumping irrigation water and its delivery to cotton and wheat fields

(v)   state procurement price

(vi)   cotton picking and labor mobilization

(vii)   cotton procurement and marketing.

6.   **These 'buckets' and their reforms are highly relevant to understand current and future performance of clusters**. The reform of various buckets has been carried out at variable speed and depth, and some of these reforms started in the earlier years. The largest reforms in 2017-2019 were (Figure 1):

(i)   reduction in cotton growing area

(ii)   increase in the state procurement price of cotton

(iii)   promotion of private investments in cotton value chains through cotton-textile clusters

(iv)   elimination of the systematic use of child labor and a significant reduction in the systematic use of forced labor.

Figure 1: A chronology of cotton sector reforms in Uzbekistan: 2017-2020
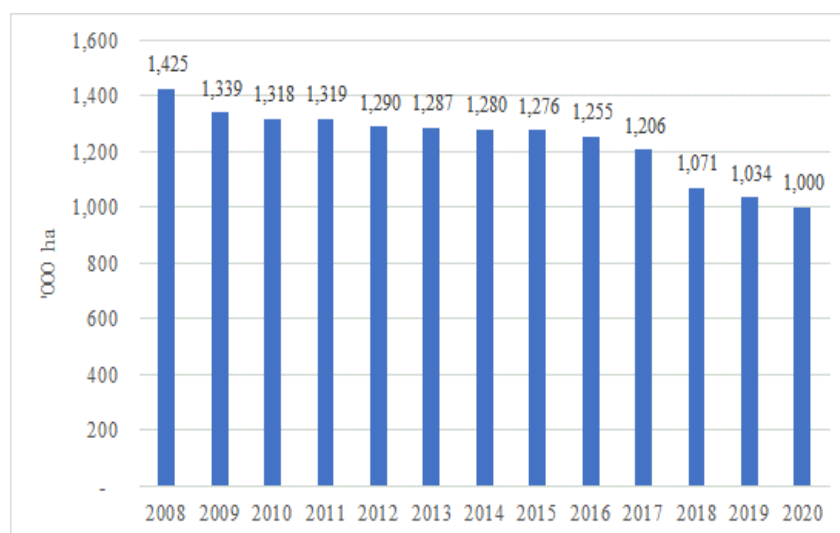

Source: World Bank staff.

7.   The March 2020 Resolution No. 4633 builds on these reforms, key implications of which are discussed below.

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Crop placement

8.   ***Recent developments***: Every year the GoU assigns the area to grow cotton under the crop placement system. In 2008, the cotton growing area was 1.4 million ha (Figure 2). In 2020 it is expected to be 1.0 million ha or 28 percent less than in 2008. The major decrease in cotton growing area occurred during 2017-2019 as a result of the decision to diversify agriculture[5]. The decrease of 400,000 ha over 12-year period is a significant achievement, constituting more than 10 percent of Uzbekistan's total irrigated harvested area (about 3.5 million ha).

9.   In addition to the determination of the total cotton growing area, the centralized administrative decisions were made about the use of specific "cotton varieties" in various parts of the country. It means that the final call on selection of cotton varieties was not with farmers or clusters, but with local authorities, whose decision relied on outdated recommendations to adopt assigned seeds for each agro-ecological zone. Often, the varieties chosen were with traits that are no longer demanded in the market or not suitable for production conditions of specific locations.

Figure 2: Cotton growing area, '000 ha, 2008-2020

Source: State Statistics Committee of Uzbekistan.

10.   ***Outlook***: According to the Resolution No. 4633, the GoU will maintain the system of crop placement for the time being, under which the cotton growing area is assigned by the state. It will stay in place until 2023, according to the Strategy of Agriculture Development during 2020-2030, and it might eventually be extended due to the lack of sufficient fiscal space to replace this instrument with area/output subsidies, used by other countries to encourage cotton production, which remains a high priority in Uzbekistan.

11.   Regarding the placement of cotton varieties, starting from 2020 the GoU will move away from placing cotton varieties, leaving a final decision, what variety of cotton to use, to farmers and clusters.

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[5] In 2017 the GoU launched a series of economic reforms, including reforming agriculture, as a part of Uzbekistan's Development Strategy (2017-2021). Reforms include a shift of some cotton and wheat growing areas to horticulture products, which has a potential to generate higher value added, employment, and export receipts.

Cotton production targets

12.   ***Recent developments***: There has been no change to the system of production targets until the Resolution No. 4633. The GoU was setting production targets at the beginning of each production season (April) and making oblast and rayon hokyms responsible for meeting these targets at any cost. These targets have been a significant driver of the use of forced labor. Farmers, who do not meet production targets over few years, lose their land use rights. Table 1 shows the recent data for Uzbekistan's cotton production, consumption/processing, and trade.

Table 1: Cotton balance in Uzbekistan, 2017-2019

	2017	2018	2019
Harvested area, '000 ha	1,230	1,071	1,033
Beginning stocks, '000 tons	794	1,064	927
Production, '000 tons	2,819	2,479	2,346
Import, '000 tons	0	0	0
Export, '000 tons	681	511	215
Domestic use, '000 tons	1,869	2,105	2,276
Ending stocks, '000 tons	1,064	927	783

Source: US Department of Agriculture.

13.   ***Outlook***: The elimination of the state production targets in 2020 will remove the responsibility from hokyms to meet production targets, thereby helping eliminate the use of forced labor and strengthen land tenure security of farmers[6]. This decision will also help gradually shift attention from quantity to quality of cotton.

State financing of cotton production

14.   ***Recent developments***: The level of production targets, cotton production costs, and what share of these costs is covered by the advance credit has determined the annual credit amount (e.g., working capital advance) for cotton production. The credit was provided by the State Fund for Agricultural Support under the Ministry of Finance (hereafter Fund), who disbursed funds and collected payments through Agrobank. All cotton farmers received a similar credit amount per hectare. In 2016, the total disbursed credit to farmers was 1.5 trillion Soms, growing to 7.1 trillion Soms in 2019. This increase was a result of the increase of inflation and production costs. The annual interest rate for this credit was 3 percent in 2016-2018 and 5 percent in 2019. For comparison, the average market interest rate for loans in Soms in 2019 was above 20 percent.

15.   ***Outlook***: The state financing of cotton production will continue due the still unreformed banking sector, which is not ready to replace the state financing. Loans will be received by cotton farmers, even if they are members of clusters. The Resolution No. 4633 introduced several reforms that would attract more commercial banks into credit provision, increase the cost of capital for farmers, and provide farmers with options on credit amount (Table 2). This all should help gradually move away from direct credit provision by the state.

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[6] Farmers, who do not meet cotton production targets set by the state, lose their land lease agreements. Elimination of the state production plan will remove yield targets to be met by farmers, thereby protecting farmers from termination of their land lease agreements.

Table 2: Changes to the cotton's financing mechanisms

	Prior to 2020	In 2020
No. of participating banks	Only Agrobank	Several banks
Cost of capital for banks	2%	7-9%
Cost of capital for farmers/clusters (interest rate)	5%	10-12%
Share of cotton production costs covered	60%	50% costs with 8% interest rate 60% costs with 10% interest rate

Source: World Bank staff.

16.   The Resolution No. 4633 also orders hokyms to refrain from interventions into farm input supply, as was the common case before. From the 2020 harvest hokyms will be only responsible for ensuring competition among suppliers and their compliance with laws and regulations.

State procurement price

17.   ***Recent developments***: The GoU set up the state procurement price to pay farmers for produced cotton. The state procurement price constantly grew during 2016-2019 (Table 3), and in 2019 the state price reached the market price level proxied by the export parity prices. In addition, the 10 percent discount was used for purchasing domestically produced cotton fiber at the commodity exchange.

Table 3: State procurement of cotton, 2016-2019

	2016	2017	2018	2019
State procurement price, Soms/ton	1,218,400	1,880,060	3,250,000	4,300,000
State procurement price, US$/ton	377	231	396	488

Source: MOF.

18.   ***Outlook***: The Resolution No. 4633 abolished the state procurement prices and introduced the indicative prices for cotton, which will consider the cotton production costs and export parity prices. In addition, it abolished the 10 percent discount for fiber traded at then commodity exchange, increasing the effective prices for farmers. The indicative prices will be published monthly by the authorities to inform contracts between farmers and investors. More details are expected in the upcoming months on the methodology of minimum price estimates and how they will be used to inform contract negotiations.

19.   Given that Uzbek cotton farmers still have no choice but produce cotton on the assigned cotton growing areas, when the world market price of cotton is low, as is the case in 202 caused by the negative impact of the coronavirus on global demand for cotton and textile products, the indicative cotton price in Uzbekistan should at least cover the production costs and some subsidy could also be provided.

Cotton picking and labor mobilization

20.   ***Recent developments***: Cotton pickers are centrally mobilized by the state, with hokyms being in charge of mobilization and planning of labor allocation from field to field to ensure a hundred percent of cotton output to be harvested. Workers' recruitment by farmers and clusters was discouraged, although it was legal. Cotton is being picked during September-October and harvesting campaign finishes before the start of November rains, which seriously damage the

quality of cotton. In 2015, about 3.4 million people were estimated to participate in cotton picking (Table 4). In 2019 this number declined to 1.7 million, due to the decline in cotton growing area (see Figure 1), the decline in cotton output (see Table 1), and higher productivity of cotton pickers induced by higher wages. Some of the labor was forced to pick cotton. The ILO estimates the forced labor in 2015 to comprise 448,000 people, declining to 102,000 people in 2019.

21.   The estimated total cost of harvesting cotton in 2019 was about 3 trillion Soms. Most cotton, about 95 percent, is hand-picked. The average wage of cotton pickers increased from 200 Soms/kg in 2015 to 800-1,400 Soms/kg in 2019 (Table 4). The GoU compensated some of the cotton harvesting expenses, including: (i) the wages of heads of cotton-picking brigades; (ii) top up wages of the unemployed people, who participated in cotton harvesting; and (iii) infrastructure for workers' accommodation and travel. The public expenditures for this purpose were 36 billion Soms ($11 million) in 2017 and 252 billion Soms ($31 million) in 2018.

Table 4: Cotton picking in Uzbekistan

	2015	2016	2017	2018	2019
Estimated number of cotton pickers, '000	3,400	2,960	2,800	2,400	1,750
Estimated number of "forced" cotton pickers, '000	448	n/a	364	170	102
% of forced labor	14.0	n/a	13.0	6.8	5.9
Average wages of cotton pickers, Soms/kg	200	280	450-700	700-1,300	800-1,400

Source: ILO.

22.   *Outlook*: The Resolution No. 4633 shifted the responsibility for recruiting cotton pickers from hokyms to farmers and clusters. It prohibits hokyms to intervene into the mobilization of cotton pickers. The cost of recruiting and paying wages of cotton pickers will be covered by farmers and clusters, with the GoU to provide a 12-month credit to pay cotton pickers on time.

Cotton procurement and marketing

23.   *Recent developments*: Until 2020, the GoU was responsible for buying all raw cotton produced. This practice has not changed even after the establishment of cotton-textile clusters. Almost all clusters received the working capital advance from the Fund to produce cotton[7], and, therefore, they were obliged to report about procurement volumes, which were part of the state order system.

24.   *Outlook*: The Resolution No. 4633 eliminated the state production targets and the state procurement. To avoid disruptions and as a transitory measure, the GoU will compensate some part of the interest rate for commercial credits, for up to 12-month use, attracted by the organizers of cotton-textile clusters to purchase raw cotton from farmers. In 2020, the interest rate subsidy will be between 6 and 9 percent, calculated as a difference between commercial interest rate (22-25 percent) and the CBU refinancing rate (16 percent)[8].

C.   THE STATUS AND IMPACTS OF COTTON-TEXTILE CLUSTERS

25.   **The clusters were created on a first-come-first served basis**. Textile enterprises initiate a creation of clusters by submitting an investment proposal to oblast hokyms, who review and pre-

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[7] In 2019, 74 clusters, except Indorama, received the funding from the Fund.
[8] Interest rate subsidy cannot exceed 10 percent.

approves them. Their final approval is made by the Cabinet of Ministers. Priority is given to investment proposals of textile enterprises with deep processing facilities, commitment to invest in the support to farmers for increasing yields, improving cotton quality, enhancing soil fertility and water management, and adopting mechanization.

26.   **The number of cotton-textile clusters increased exponentially, from 15 in 2018 to 75 in 2019**. Most clusters work with farmers through "contract farming" arrangements[9]. Many of them have leased land for "direct farming"[10], about 10-20 percent of total cluster area Only 5-6 clusters have the most land area under direct farming, so the vast majority of cluster work with farmers. In 2019, the cotton-textile clusters operated in 86 districts on 63 percent of cotton growing areas. They produced 73 percent of total cotton output (Table 5). For the harvest of 2020, more than 90 clusters are expected to be in operation.

Table 5: Cotton-textile clusters: growing areas and production, 2019

	Area, ha	Production, tons
Karakalpakstan	28,161	71,216
Andijan	60,126	195,086
Bukhara	56,197	169,981
Jizzakh	28,068	107,241
Kashkadarya	70,200	136,240
Navoi	32,600	89,198
Namangan	55,182	171,155
Samarkand	75,580	178,105
Surkhandarya	49,846	110,659
Syrdarya	42,607	120,337
Tashkent	54,600	158,858
Ferghana	50,330	154,796
Khorezm	41,798	133,183
TOTAL	**645,295**	**1,796,056**

Source: Uztextileprom.

27.   **In 2019, the areas with cotton clusters generated higher cotton yields than the areas without clusters**. Moreover, more than 40 districts with clusters reported the cotton production higher than in the last ten years. This is a big achievement for Uzbekistan, a country with limited land and water resources. The average raw cotton yield of clusters was 2.9 tons/ha[11], which was 0.53 tons/ha higher than outside of clusters and 0.88 tons/ha higher than the average in 2018. In 34 clusters, the yield was above 3.0 tons/ha, and in 9 clusters – above 3.5 tons/ha (Figure 3). Achieving the yield increases has been a result of significant private investments in modern technology adoption and compliance with good agricultural practices. Many clusters, mainly on land leased for direct farming, have analyzed their soils and updated agro-technological maps on the area of 149,200 ha. They report to have adopted organic fertilizers (138,200 ha), deep ploughing (167,800 ha), drip irrigation (9,400 ha), and laser leveling of fields for more efficient
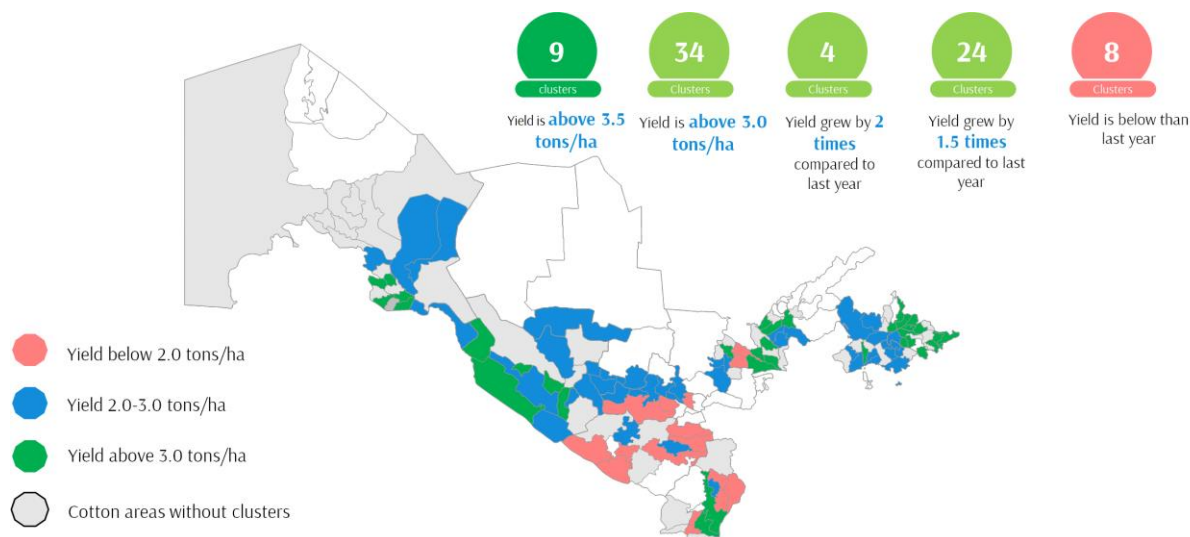
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[9] Contract farming is an arrangement, under which cotton is produced by farmers and sold to cotton processing/textile enterprises, which establish cotton-textile clusters.

[10] Direct farming is an arrangement, under which cotton/textile enterprise leases farmland from the state and produces cotton itself by hiring wage workers.

[11] This is still a low yield in the global perspective. Cotton exporters, as Uzbekistan, achieve higher raw cotton yields: USA – 3.1 tons/ha; Egypt – 4.4 tons/ha; Turkey – 5.3 tons/ha; Brazil – 5.6 tons/ha; and China – 5.8 tons/ha.

seeding and water management (10,100 ha). These are all modern technologies, which were brought to Uzbekistan and adopted under the cluster model, *albeit* at the low rate, given that in 2019 the cotton growing area under clusters was 0.6 million ha.

Figure 3: Yields in the cotton-textile clusters in 2019

Source: Uztextileprom.

28. **Some clusters have topped up wages of cotton pickers**. To motivate pickers and reduce the use of forced labor, some clusters paid additional wages, which added to the clusters' expenses.
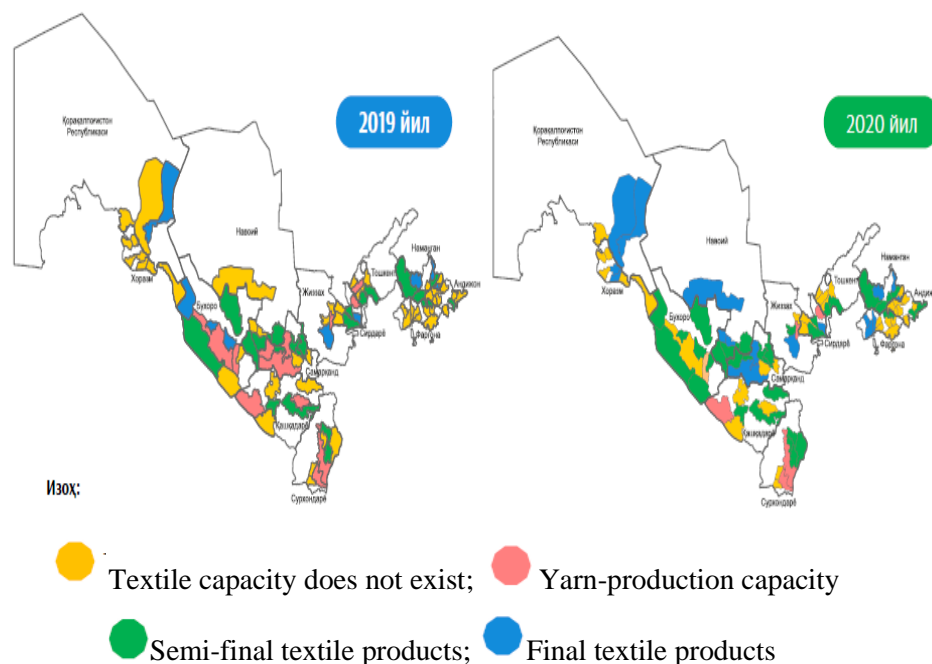
29. **The clusters have invested in mechanization of cotton production and harvesting**. The rate of mechanized harvesting is reported to increase from 1 percent in 2018 to 5 percent in 2019. This is still a very low figure, with the GoU target set at 30 percent by 2026.

30. **The clusters helped increase an overall efficiency of ginning and reduce a wastage of raw cotton**. The state-owned gins are being transferred to clusters, which privatize them over time. Most equipment on these gins is outdated. Eight clusters reported to have already replaced ginning equipment, and many others plan to do so in near future. The average ginning ratio of the old gins in Uzbekistan is 30-33 percent. New investments increase it up to 40 percent, reducing raw cotton waste/loss by 7-10 percent.

31. **Many clusters have invested in cotton processing**. Twenty-nine clusters invested in 42 new projects, adding 180,000-ton capacity for cotton yarn production, 11,300-ton capacity for knitted fabric, and 32.2 million units of textile and apparel products. These investments helped create 11,000 new jobs, on top of 160,000 jobs in textile and garment industry[12]. Cotton processing/textile facilities are spread across the country, creating decent jobs close to small towns and rural areas (Figure 4). This model is much more sustainable than the model prevailing in other developing countries, where textile and apparel industry tend to concentrate around capitals and large cities, often leading to long commute of workers and precarious living conditions.

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[12] According to the Uztextileprom, every \$1 million investment in the textile industry creates about 40 new jobs. This is comparable with job creation in horticulture value chains and is much higher than in other sectors of the economy.

Figure 4: Change of cotton processing capacity between 2019 and 2020

Source: Uztextileprom.

32.   **Private and public investments have led to a significant increase in the export of higher-value products**. In 2005-2010, the export of fiber exceeded the export of cotton processing products by several times (Table 6). In 2018 and 2019, the situation turned around. In 2018, the export of cotton processed products was $1.54 billion compared to $0.22 billion of fiber export. The export target of cotton processed/textile products for 2025 is $7 billion. More importantly, the export shifted from low-value yarn to higher-value textile products. In 2005-2015, the average share of yarn in total yarn-textile export was 64 percent. In 2018 this share dropped to 47 percent, increasing a bit in 2019. This is another transformational achievement, which would not have happened so fast without clusters.

Table 6: Export of fiber, cotton yarn, and textile products, 2005-2019 (million US$)

	2005	2010	2015	2018	2019
Fiber	**1,033.3**	**1,572.7**	**736.1**	**222.1**	**281.6**
Yarn	120.7	386.8	545.9	726.7	926.1
Ready knitted and garments	20.8	116.5	184.0	585.7	354.5
Knitted fabrics	4.5	31.2	46.1	65.5	84.8
Cotton fabrics	28.3	42.0	33.8	65.6	69.2
Other made-up textile products	6.9	12.9	15.4	42.9	51.9
Carpets	0.1	7.3	13.6	31.0	32.0
Cotton wool, felt and nonwoven materials	9.4	17.0	16.4	26.8	108.1
Total cotton processed products	**190.7**	**613.7**	**855.2**	**1,544.2**	**1,626.6**

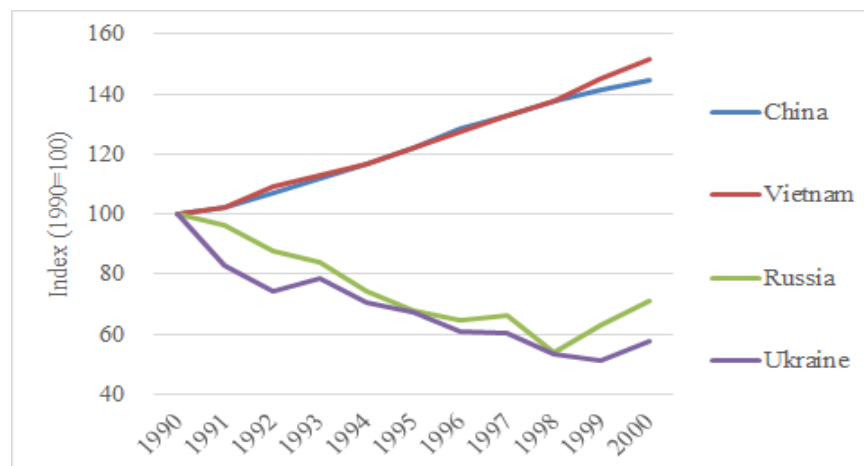*Source: State Statistics Committee of Uzbekistan.*

D.   DEVELOPMENT CHALLENGES AND RATIONALE FOR THE CLUSTER MODEL

33.   **Although the cluster model seems to have generated many economic and social benefits, some stakeholders question the rationale for clusters and whether these investors are indeed 'responsible.**' The main concern is that the clusters are replacing a state monopoly by creating new private regional monopolies with the state support. Indeed, farmers within the cluster can sell their raw cotton only to a designated textile enterprise. An organizer of cluster, on the other hand, can use raw cotton for processing on its own facility or sell cotton fiber at the commodity exchange for profit. Another argument against clusters is that no other major cotton producing country has such a production model. Many also question transparency and integrity of the process of the clusters' establishment.

34.   **These concerns are indeed valid and very important**. Some of them were raised in the World Bank's cluster assessment report in 2018. As more information become available about clusters and their initial results can be better assessed, these concerns need to be better linked to the discussion about why the clusters in Uzbekistan were introduced in the first place. What kind of alternatives were considered? What information was used by policy makers? These points are discussed below.

35.   ***First*, Uzbekistan had an opportunity to observe and learn from the results of different reform models in other countries, which started reforms much earlier**. It could see, for example, the result of economic and agricultural reforms in other post-Soviet countries during the 1990s and compare it with the result of reforms in Asian socialist countries such as China and Vietnam. China started reforms in agriculture in 1980s, followed by Vietnam with its Doi Moi economic reforms in 1986. While the reforms in Russia and Ukraine led to the collapse of agricultural GDP, agriculture kept growing in China and Vietnam (Figure 5).

Figure 5: Changes of agricultural value added in selected countries, 1990-2000

Source: World Development Indicators.

36.   **Before beginning the recovery, the agricultural GDP in post-Soviet countries was falling until 1998, bottoming at 50 percent of the 1990 agricultural GDP level**. What happened was that these countries abolished the old institutions and arrangements without quickly creating new ones or at least making transitory arrangements to moderate adjustment costs. They overlooked the complexity of interlinkages between various elements of their state production

system, and between the reforms of real economy, banking sector, and state-owned enterprises, the same challenge that exist in Uzbekistan today, and did not make a good sequence of reforms. In China and Vietnam, on the other hand, agricultural GDP in 2000 was 50 percent above the 1990 level. These countries conducted reforms sequentially, addressing problems in turn and experimenting with pilots before introducing country-wide changes. Uzbekistan seems to have chosen the East Asian model of reforms, and cotton-textile clusters have been a part of that model.

37.   ***Second*, the GoU could also learn lessons from successes and failures of cluster models elsewhere**. In other countries the cotton-textile cluster model would be called "contract farming." Many countries practice this model to link farmers with lead firms. In developing countries contract farming is considered as a good model for integrating smallholders into modern food value chains. Lead firms sign contract with farms for production and delivery of specific products and they often provide farms with technical and financial support, in addition to guarantee market, as a part of contract farming arrangement. The biggest challenge of contract farming in developing countries has been wide-spread side-selling of production by farmers. For varying reasons farmers in many countries tend not to honor agreed contractual arrangements by selling their output to outside traders, as long as these traders offer more or faster cash, ignoring that lead firms often helped with technical support or even production pre-financing. Contract enforcement in the countries, in the absence of efficient court system, is weak; farmers know that and look for short-term gains, undermining long-term relationship with lead firms. The latter, on the other hand, lose interest in increasing their costs by providing advance credit and guarantee markets to farms, who do not appreciate their efforts of providing technical assistance and bearing commercial risks. The established cluster model in Uzbekistan's cotton sector eliminates the risk of side-selling by prohibiting it by law. And this law is enforced. As a result, textile businesses in Uzbekistan have an insurance for returns of their investments in financial and technical assistance to farmers. Once farmers are allowed to sell cotton freely, the cluster system is likely to disappear. The industry will become fragmented and farms may not have capacity for investments required to modernize cotton production and on-farm irrigation/drainage infrastructure in order to bring it up to a competitive level. This will put at risk the entire textile industry in Uzbekistan, which is the third largest export-generating industry after gold and petroleum gas[13].

38.   ***Third*, the GoU has been concerned about the capacity of public institutions in the short run to deliver high-quality services to farmers to help them adopt modern technologies, thereby increasing yield and quality of cotton**. Human and financial capacity of public advisory/extension services in Uzbekistan is very low. Cotton yields have been stagnating despite the prioritization of cotton sector in public funding for decades. How could they afford to reduce the cotton growing areas and shift it to horticulture production without increasing yields? This would damage the textile and garment industry, which employs about 200,000 people and has a high potential to generate more decent jobs and to triple the country's export revenues. While more public expenditures have been recently allocated for strengthening of advisory services and seeds sector, the cluster model has been sought to leapfrog technological progress that would then allow accelerating diversification of agriculture and reducing sown area under cotton. This approach is possible as supported by the global experience. The review of the organization and performance of the cotton sector in Africa, carried out by the World Bank in 2009[14], showed that competitively

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[13] In 2019, the export of textile and textile products accounted for 9 percent of total export, following 28 percent for gold and 14 percent for energy and petroleum products.

[14] World Bank. 2009. *Organization and Performance of Cotton Sectors in Africa*. Washington, D.C.

structured sectors (e.g., in Tanzania, Uganda, Benin) could pay higher prices to farmers but were unable to provide input credit or advisory services; as a result, they generated low yields and low quality of cotton. Concentrated sectors (e.g., in Zambia, Burkina Faso, Ghana), on the other hand, which are similar to cotton-textile clusters in Uzbekistan, did better on input credit and provision of advisory services. Their yields were higher and quality of cotton much better. Farmers may not necessarily get higher prices under cluster model compared to competitive system without clusters, but the entire value chain seem to have generated more economic gains under the cluster model.

39. ***Fourth*, organization of cotton picking is not an easy task**. Leaving it to farmers alone could create disruptions in the short or even medium run. The challenge is that the harvest requires about 2 million people within a narrow window of two months to pick cotton. Clusters have more capacity and resources to attract labor without disruptions and better positioned than individual farmers to accelerate adoption of mechanized harvesting[15], thereby reducing the long-term demand for manual cotton picking.

40. ***Fifth*, the GoU saw the need to bring textile jobs closer to small towns and rural areas**. They saw it necessary to avoid mistakes made by other Asian countries, with high concentration of textile factories around very large cities and many problems for workers associated with this concentration. Creation of clusters in Uzbekistan is seen as an incentive to promote investments of textile industry country wide, not only to Tashkent or Samarkand.

41. **The above-mentioned reasons for establishment of the cluster model in Uzbekistan cannot be ignored in the discussion of development challenges and solutions for the country**. It is without doubts that clusters played an important role in convincing the GoU to make a revolutionary decision to eliminate the state production target and procurement of cotton in 2020.

E. OUTLOOK FOR CLUSTERS

42. **A question remains about the future of cotton-textile clusters in Uzbekistan**. They indeed seem to have been important for elimination of the state production targets and procurement and for maximizing economic benefits along the cotton value chain. Clusters were organized to generate benefits for both producers and processors. On the one hand, producers could benefit from access to market, advisory services, and modern technologies. On the other, processors could benefit from accessing raw cotton in agreed quantity and quality. If this 'contract' is breached, in a situation when the government is no longer involved, a cluster model will be in trouble. Major risks to mitigate in this regard can be divided into: (i) keeping reputation of the organizers of clusters as responsible investors; and (ii) receiving more tailored state support. Addressing these risks would determine a future of the cluster model in Uzbekistan.

43. **Being responsible investors would require clusters to work more on the following**:

   a. *Meeting their investment and responsible sourcing commitments*: Clusters should meet their investment and responsible sourcing commitments related to cotton production, processing, and value chain development. Investment plans of many of them are large,

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[15] Yet, a wide adoption of mechanized harvesting will take longer than generally anticipated in Uzbekistan. In addition to traditional coordination problems among farmers in regard to weed management through application of the same herbicides and the use of defoliants and boll openers, investments are needed in on-farm roads to allow moving combine harvesters from field to field. Building on-farm roads requires additional investments and would reduce the growing areas, something the authorities and farmers seek to avoid.

and some may have overpromised. It is important that GoU monitors implementation of their investment plans and, where needed adjustments are made to the size of clusters. Some clusters may be too large and need to be sub-divided. This would also be good for local competition. Overall, enforcement of investment commitments and responsible sourcing of cotton is an important task of GoU to enhance the credibility of clusters.

b. *Focusing on the core business*: Cotton-textile clusters should prioritize investments in their core business, which is cotton production and processing. They were organized to bring dual benefits to cotton producers and processors. Yet, many clusters, often 'encouraged' by various ministries and agencies, have grandiose plans to invest in everything, from cotton processing and textile production to grain silos, greenhouses, vegetable oil processing, and livestock farms. Such vast investment plans distract clusters from their core cotton-textile business, increasing the risk of failure and contributing to their prolonged reliance on the state budget to finance cotton production and purchase of cotton.

c. *Providing effective services to farmers*: Provision of technical and financial assistance is something anticipated from farmers in return for their work to produce cotton, which generates income for many players along the entire value chain. Many clusters have already employed local and foreign agronomists to help farmers with adoption of new technologies and practices. Many more clusters should do the same to scale up this effort. Importantly, this assistance should not be perceived by farmers as orders from above. Final decision on what kind of inputs and technology to adopt should be with farmers. Clusters should also be involved in production and multiplication of high-quality seeds, which are needed to raise productivity and quality of raw cotton.

d. *Paying a fair farm-gate price for raw cotton:* Without the state procurement prices and without free market price formation for raw cotton, farmers and textile enterprises will need to negotiate prices of raw cotton on their own. Indicative minimum prices based on production costs and international prices, which will be published quarterly as outlined in the Resolution No. 4633, will inform this negotiation. Actual cotton farm-gate prices may be below or above the export parity prices, depending on the package of services provided by clusters to farmers. If no service is provided, there is no reason of why actual farm-gate price should be lower than the export parity price. If services are provided, textile enterprises should explain and negotiate with farmers to reach a solution acceptable to both parties. This is one of the biggest risks for the cluster model to sustain, because without financial incentives farmers will not be motivated to increase cotton production and its quality as is urgently needed.

e. *Refraining from the old-era restrictions:* The GoU and the organizers of cotton-textile clusters should refrain from imposing yield targets on farmers, for example setting up minimum yields based on soil quality, because this would be the same as keeping state production targets and using it as a justification for terminating land lease agreements. Minimum or optimal yields calculated since the Soviet times are not only outdated, they do not reflect actual economic and social situation on farms. What is optimal technically might be sub-optimal economically. Estimates of optimal yields use a perfect-scenario for input use, irrigation, and supply response. Reality is different. High input prices and poor delivery of irrigation services may bring highest economic returns to farmers at much lower than technically optimal yield. Soil fertility might be below the estimate made by the State Land Committee several decades ago. And the quality of fertilizers

and other inputs might be worse than what is written on their bags. Thus, expected yield targets in the contracts between farmers and the organizers of clusters should be for information only, not a mandatory requirement, not meeting of which would lead to penalties.

44. **Success or failure of clusters will also depend on the design and implementation of the state support programs, including the following**:

   a. *Enforcing the refrain of hokyms to intervene into production and marketing decisions*: The Resolution No. 4633 prohibits hokimiyats to interfere with cotton production, selection of cotton varieties and other inputs, use of credit, and marketing decisions of farmers and clusters. It remains to be seen of how this new rule is enforced. Without a strong enforcement, the cluster model will be discredited.

   b. *Prevention of cases of illegal seizure of land*: To guarantee favorable conditions for producers, including preventing illegal seizure of land, it would be advisable to transfer the decisions on termination of the lease of land for cotton production from hokyms to special working groups consisting of the Chambers of Commerce and Industry, the Council of farmers, dekhkan farms and household units, and other involved bodies for legal examination.

   c. *Putting emphasis on contract farming model of the clusters in areas where professional cotton farmers exist:* The GoU should continue putting emphasis on promoting a contract farming cluster model. This model is inclusive, and it would allow phasing out/modifying cluster model more easily in the future, if needed, without disruption to agriculture sector. A direct farming model is necessary only in areas with low population density, in which small farmers are unlikely to profitably grow cotton as they cannot afford the required investments in irrigation and drainage infrastructure and in land redevelopment required for mechanized cotton growing and harvesting.

   d. *Refraining from the farm inputs' import substitution policy*: Tariff and non-tariff barriers increase the costs of fertilizers, chemicals, defoliants, machinery, and equipment. For example, in January 2020 the import tariffs for agricultural machinery increased from zero to 20 percent. In addition, the state support is eligible only for buying locally-produced fertilizers (subsidized credit) and machinery (subsidy for 30 percent of retail price). In addition, some firms report frequent informal orders to local banks not to finance purchase of imported fertilizers and chemicals. These import substitution measures increase the cost to farmers without improving quality of locally-produced inputs. This may also slow down privatization of input manufacturers. Many farmers do not buy local cotton combine harvesters, despite their low price compared to imported ones, because they often damage the quality of raw cotton during harvesting. If farmers and clusters continue to pay high import tariffs and be forced to buy local, it would be hard to anticipate significant changes in adoption of modern technologies, especially mechanization. As mentioned above, only 5 percent of cotton output was harvested mechanically in 2019.

   e. *Putting in place an integrated program for promoting cotton mechanization*: Subsidization of the locally-manufactured combine harvesters alone will not significantly increase mechanized harvesting without complementary public capacity building and investment programs: (i) farmers should be trained for cooperation on weed management and the use of modern technologies for preparing cotton fields for

harvesting by defoliants and bull openers; and (ii) investment program for on-farm roads should be developed to permit movement of machinery between farm fields. Without these complementary public programs, mechanization would lag.

f. *Reforming the banking sector*: The slow reform of the banking sector and the resulting lack of agri-finance tailored to the needs of farmers, who do not have sufficient fixed asset collateral, prolongs the need for the Fund under the Ministry of Finance to provide credit to cotton farmers. Innovative agri-finance instruments such as crop and warehouse receipts should be introduced to add options to the current financing instruments, which are based entirely on fixed asset collateral.

g. *Modernizing irrigation infrastructure*: One of the biggest challenges for farmers and cotton-textile clusters are the poor irrigation services. Clusters do their part on the adoption of water-saving technologies on-farm, but they are not responsible for central irrigation and drainage infrastructure. In some cases, the clusters complain that the local irrigation departments request them to contribute to upgrading or rehabilitating centrally-managed infrastructure. This would be only acceptable where clusters agree and enter into public-private partnerships (PPPs). The legal basis for such PPPs is already in place, and such projects could be implemented, where feasible. But the role of the state in modernizing the core irrigation and drainage infrastructure should remain unchanged, including a much better use of 1.3 percent of GDP allocated to the Ministry of Water Resource Management annually for these purposes.

h. *Improving the quality of other public services*: The Ministry of Agriculture and other state institutions should increase public financing and improve the quality of cotton seed breeding, variety registration, and seed production, multiplication, and quality assurance, as well as working with the clusters to help them produce high quality seeds. In addition, the Ministry of Agriculture should work more with the clusters and Uztextileprom to improve the quality and outreach of: (i) advisory and extension services; (ii) soil fertility and water resource management; and (iii) collection and distribution of market and statistical information, including on cotton production-trade-consumption and price outlooks.

March 6, 2020   **PP-4633**

RESOLUTION OF THE PRESIDENT OF THE REPUBLIC OF UZBEKISTAN

On measures for the widespread introduction of market principles in the field of cotton

In implementation of the Decree of the President of the Republic of Uzbekistan "On Approving the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020 - 2030" dated October 23, 2019, No. PD – 5853, a phased reduction in the volume of state orders, including the introduction of market mechanisms to ensure free competition in cultivation, the purchase and sale of raw cotton, increasing the interest of farmers in this direction, and the wide attraction of foreign investment in the field:

1. To agree with the proposal of the Ministry of Economy and Industry, the Ministry of Finance, the Ministry of Agriculture, Uzpakhtasanoat JSC, the Council of Farmers of Uzbekistan to abolish the state order for the production of raw cotton from the 2020 harvest.

To approve the Program of measures for streamlining of relations between the farms and the processing enterprises of cotton in connection with introduction of market principles in cotton growing according to the appendix N 1.

2. Determine that:

a) starting from 2020 harvest:

raw cotton state purchase price determination practices abolished;

raw cotton producers (farms, cotton-textile clusters, cooperatives) are given the right to freely choose cotton seed varieties;

in order to provide raw cotton producers with high-quality seeds, the system for supplying certified seeds remains preserved (including the current procedure for paying premiums for high-quality seed cotton) with phased reassignment of function for providing seeds to seed and cotton clusters in the structure of the Seed Development Center under the Ministry Agriculture

b) in territories where cotton-textile clusters have not been created, on the basis of ginning enterprises, voluntary cooperatives of farms are organized.

Identify the main objectives of cooperation:

implementation of agreed measures for the cultivation of raw cotton by concluding agreements with members of the cooperative;

organization of joint use by members of a cooperative of property complexes, machinery, equipment, vehicles, ginneries necessary for growing raw cotton;

provision of cooperation members with agricultural machinery, fuels and lubricants, mineral fertilizers, seed, as well as chemical and biological protection means on the basis of an agreement concluded between the cooperation and its members;

harvesting, transportation, storage, processing of raw cotton and raw processing, by the mill method on a contractual basis, organization of sales of manufactured products on the basis of a commission agreement;

the provision of agricultural cooperation, accounting, consulting, intermediary and other services to cooperative members;

attracting exporters for cooperation with cooperatives, conducting market research in domestic and foreign markets;

the sale of cotton fiber and secondary products procured by the members of the cooperation at exchange trading or on the basis of direct agreements at the price established on the exchange.

Apply privileges established in accordance with government decisions to cotton-textile clusters to cooperatives.

c) Cancel 10 percent discount on cotton fiber produced in the republic when defining starting prices at commodity exchanges.

d) for the purpose of timely provision of agricultural producers with qualitative seeds of good quality, prevention of the spread of diseases through untreated seeds, gradual increase of cotton yield cotton seeds to be provided by seeds manufacturing enterprises of the JSC "Uzpakhtasanoat" and textile clusters

3. The Ministry of Economy and Industry of the Republic of Uzbekistan, together with the Ministry of Agriculture, the Council of Farmers, and the Uztextileprom Association based on the analysis of prices on world markets annually by December 1, to announce the minimal prices for the next year's harvest, and taking into account possible changes in market prices, quarterly adjustments to these prices;

4. Beginning March 1, 2020:

a) to finance the costs of growing raw cotton, farms, cotton clusters, cooperatives, as well as elite seed farms at the Seed Development Center, commercial banks provide loans from the State Agricultural Support Fund (hereinafter referred to as the Fund) for up to 12 months the annual rate of 8 percent for not more than 50 percent of harvest value, and at the annual rate of 10 percent for not more than 60 percent of the total value of the future harvest of raw cotton (including the bank margin of 2 percent).

Wherein:

farms, cotton clusters, cooperatives and seed enterprises under the Center for the Development of Seed Production on the basis of agrotechnical measures, independently manage credit funds and independently choose suppliers of material resources;

advancing by cotton clusters of the costs of farms associated with the harvesting of raw cotton is carried out in cash;

the timely unpaid portion of the loan allocated to finance the cost of procurement of raw cotton is reissued as a commercial loan;

b) commercial banks provide commercial loans for up to 12 months for the purchase of raw cotton grown by farmers and other agricultural enterprises, cotton clusters and cooperatives by commercial banks for the collection of cotton and final settlements.

At the same time, at the expense of the State Agricultural Support Fund, compensation is provided:

in the part that exceeds the basic rate of the Central Bank of the Republic of Uzbekistan, but no more than 10 percentage points - for loans provided in national currency;

to cover interest expenses on loans of commercial banks up to 30 percent of the interest rate established by commercial banks, but not more than 3 percentage points - on loans in foreign currency by the State fund for support of entrepreneurship;

Compensation is not provided for the timely unpaid portion of the loan funds allocated for the purchase of raw cotton.

The Ministry of Finance of the Republic of Uzbekistan, in cases of a change in the Central Bank's basic rate, is given the right to make adjustments to the interest rates of loans allocated by the Fund, bank margins and compensation provided at the expense of the State Agricultural Support Fund with prior approval of the Cabinet of Ministers.

c) loans allocated to finance the costs of growing raw cotton, cotton clusters independently growing and processing cotton, after 12 months, are reissued into commercial loans for up to 12 months on a monthly repayment basis in equal amounts.

d) Starting from the harvest of 2021, obtaining a loan for the cultivation of raw cotton is determined by the farms themselves (with the exception of land allotted to the clusters).

5. Ministry of Finance of the Republic of Uzbekistan:

to allocate up to 700 billion Soms to the State Fund for Entrepreneurship Support from the republican budget on the basis of needs to cover part of the percentage of commercial loans attracted for the purchase of raw cotton and wheat;

If commercial banks have a need for cash while providing credit resources for the purchase of raw cotton and grain, provide commercial banks with the necessary funds from the funds of the State Budget of the Republic of Uzbekistan and state trust funds, loans from international financial institutions and foreign government financial organizations attracted for budget support, issuance of sovereign and corporate international bonds, as well as other sources, not prohibited s law.

6. To approve the Program of measures to regulate the interaction of raw cotton farmers and processing enterprises in connection with the introduction of market principles in cotton production in accordance with Appendix 1.

7. To agree with the proposals of the Ministry of Economy and Industry of the Republic of Uzbekistan, the Agency for State Assets Management, the Ministry of Agriculture, the State Committee for Demonopolization, the Ministry of Finance and the State Tax Committee on the abolition of Uzpakhtasanoat JSC.

To approve the composition of the liquidation commission for the liquidation of JSC Uzpakhtasanoat in accordance with Appendix No. 2.

The Cabinet of Ministers of the Republic of Uzbekistan to approve the Road Map of the liquidation commission of Uzpakhtasanoat JSC within two months.

8. The Ministry of Water Economy of the Republic of Uzbekistan, together with the Ministry of Agriculture, the Uzhydromet Center, create a special electronic page to gain access to data on available or forecasted water resources in rivers and in the territory of the republic, as well as to meteorological, hydrological and agrometeorological data in the "online" mode with the aim of providing modern services to the agricultural sector

9. Take into the consideration that there are no limitations to the import of cotton fiber to Uzbekistan

10. With the adoption of this resolution, cancel Appendix 3 to the resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On varietal distribution of cotton and projected volumes of raw cotton production in 2020" dated December 12, 2019 No. 985.

11. The National News Agency of Uzbekistan and the National Television and Radio Company of Uzbekistan, together with the Ministry of Agriculture, provide wide media coverage of the essence and content, as well as the goals and objectives of this resolution.

12. The Ministry of Finance of the Republic of Uzbekistan together with the Ministry of Agriculture and other interested ministries and departments within two months to submit proposals to the Cabinet of Ministers on amendments and addenda to the legislation arising from this resolution.

13. The control over the implementation of this resolution is assigned to the Prime Minister of the Republic of Uzbekistan A.N. Aripov and the head of the Presidential Administration of the Republic of Uzbekistan Z.Sh. Nizomiddinov.

President
Of The Republic of Uzbkeistan   **Sh. Mirziyoev**