

OPPORTUNITIES AND PERSPECTIVES OF CONSTRUCTION OF COTTON-TEXTILE CLUSTERS IN THE REPUBLIC OF TAJIKISTAN

(Draft)

CLUSTER №4

Dushanbe city

(based on Shahrinav, Hissor, Tursunzoda, Vahdat and Rudaki districts)



CONTENT

Summary

Cotton production's condition and possibilities

Regions of republican subordination

Textile cluster development scheme

Products

Economic effect

Investment size



SUMMARY:

1. The land fund of the republic for sowing cotton is more than **180 thousand hectares**
2. Considering the technological heritage of the Soviet period, Tajikistan annually grows **up to 430 thousand** tons of raw cotton
3. Experience of the large modern cluster “Zhongtai (Danghara) Sin Silu Textile” shows that if know-how and modern technologies are applied in the cotton cultivation, the yield will increase significantly. Indicators of raw cotton harvesting is around **45-60 centners/ha** at this company.
4. Tajik Cotton is mainly exported in the form of cotton fiber without deep processing. In 2021, the export of cotton fiber was **111 thousand tons**.
5. The following factors make the transition to cluster production attractive:
 - Introduction of the cotton fiber export ban
 - International demand for cotton apparel is constantly growing. Over the past few years it increased from 8% to 21%
 - Transfer of industrial production to developing countries, due to rising of living standards in developed countries
 - Favorable ecological environment and processing of raw cotton based on cheap green energy
 - Obtaining the GSP+ status of the European Union and UK by Tajikistan
 - Full Government support, low cost labor, geographical location, favorable climate and other factors make establishing of textile clusters attractive.
6. With the current scenario, it is possible to establish **6 textile clusters** in the country
7. It is also possible to establish textile clusters based on the existing capacities of the spinning enterprises of «Olim-Textile» company, LLC «Khima-Textile» and LLC «Evraz-Danghara».



CONDITION AND POSSIBILITIES OF COTTON PRODUCTION

Local prospects for the development of cluster industries

- Significant investment potential and a system of state support for investment activities
- New taxation rules encouraging investment in industry:

When investing, investors are exempt for a certain period

Income tax

Land tax

Property tax **if the investment amount is**

- ☐ 200-500 thous. USD, for 2 year term
- ☐ 500 thous. – 2 million USD for 3 year term
- ☐ 2 -5 million USD for 4 year term
- ☐ More than 5 million USD for 5 years.

Besides:

VAT from 1 of January, 2022 y. reduced from 18% to 15%

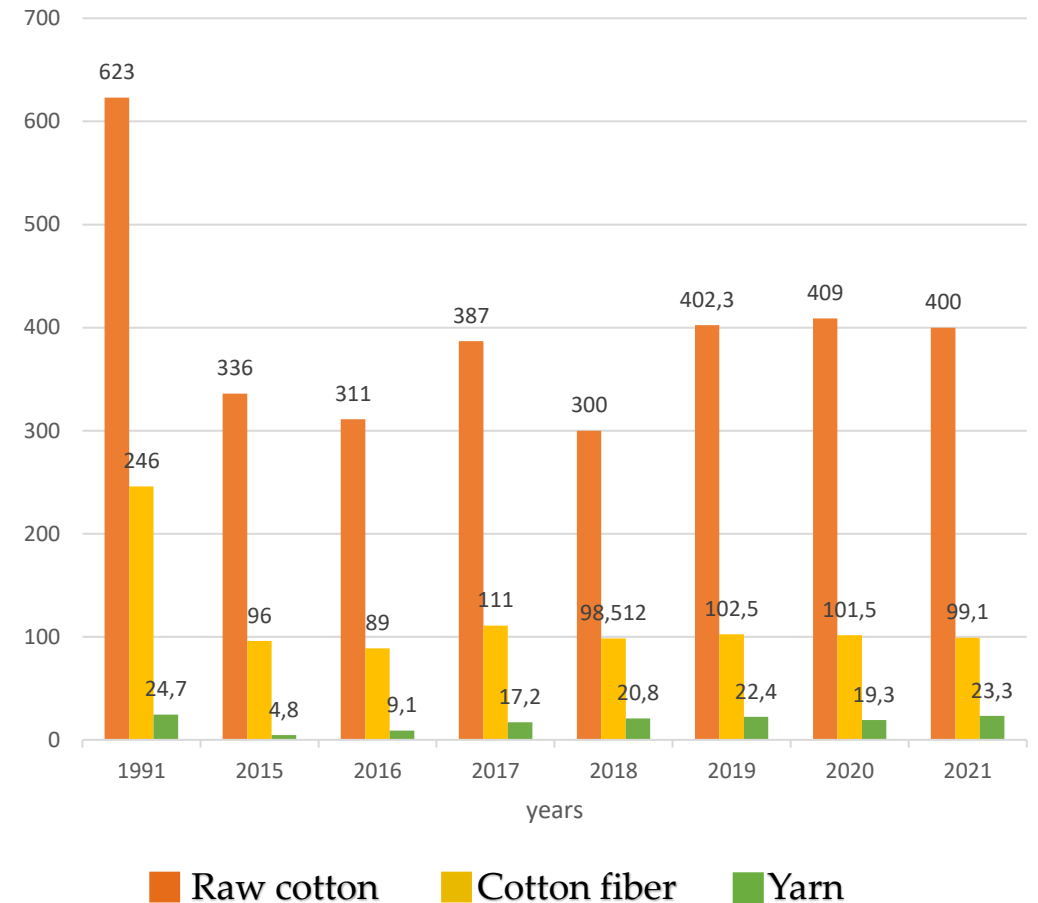
From 1 of January, 2023 y. will be reduced form 15% to 14%

From 1 of January, 2027 y. will be reduced from 14% to 13%

There is a successful experience in the complete processing of raw cotton on at the Zhongtai (Danghara) Sin Silu Textile cluster enterprise with an investment of 200 USD.

Low production costs due to cheap labor, electricity, government support and tax preferences;

Production and processing of cotton in country, thousand tons



SITUATION AND PERSPECTIVES OF COTTON PRODUCTION

The annual raw cotton picking in the Republic of Tajikistan varies from 380 thousand tons to 400 thousand tons of raw cotton and 85,585 tons of cotton fiber production, taking into account Soviet technological equipment and traditional methods of growing and producing cotton

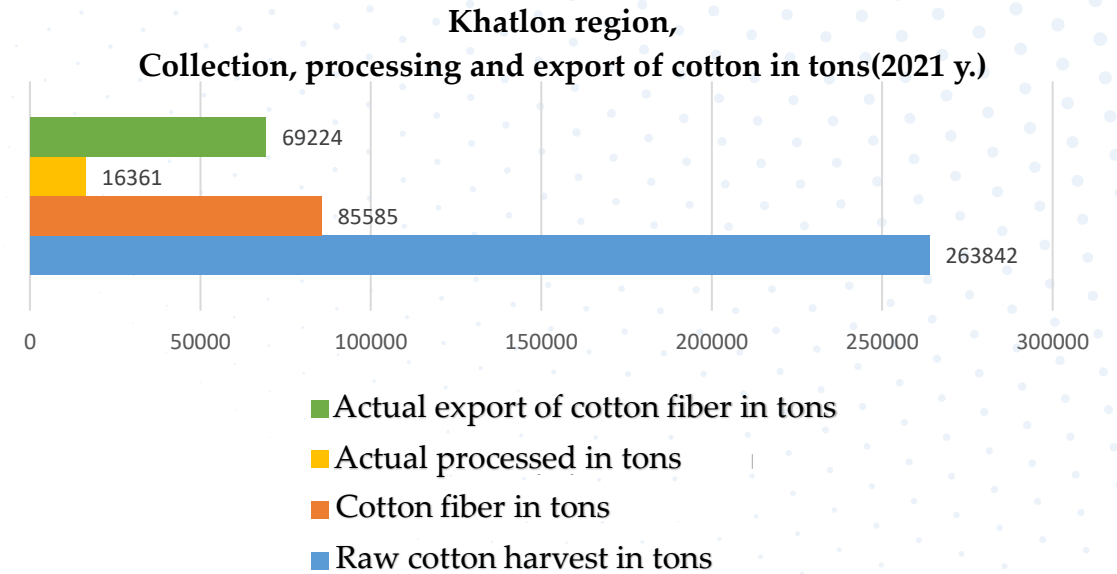
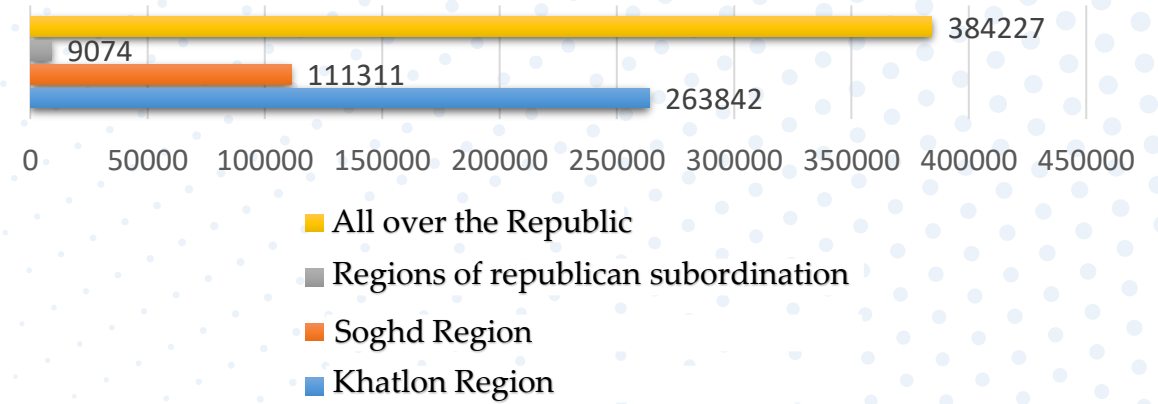
In 2021 year, 234,2 thousand tons of raw cotton were picked in the country

Only in Khatlon region were picked 263842 tons of raw cotton.

Exported 69224 tons of cotton fiber

The processed volume of cotton fiber in the country is 16361 tons.

Raw cotton picking, 2021 (in tons)



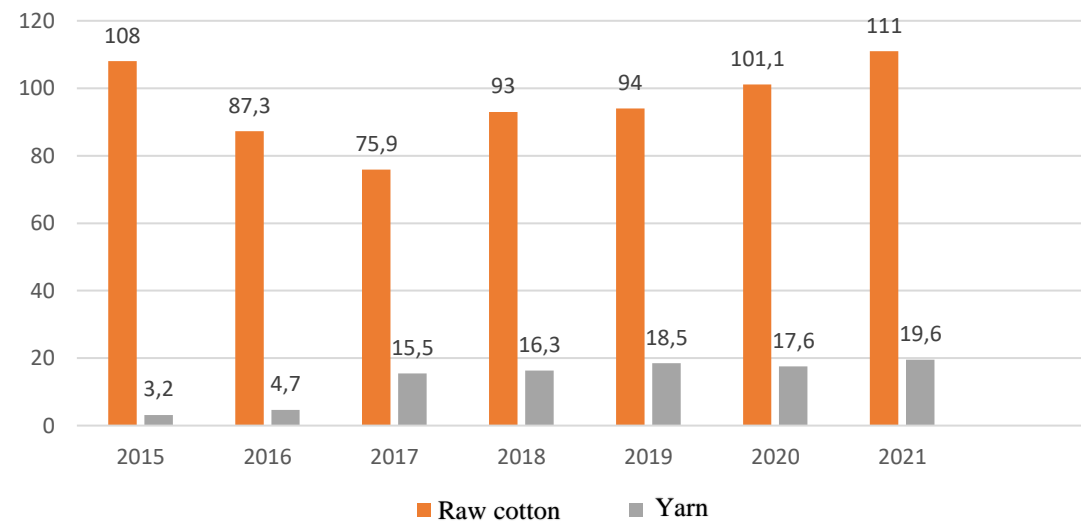
SITUATION AND PERSPECTIVES OF COTTON PRODUCTION

High share of cotton fiber and yarn exports

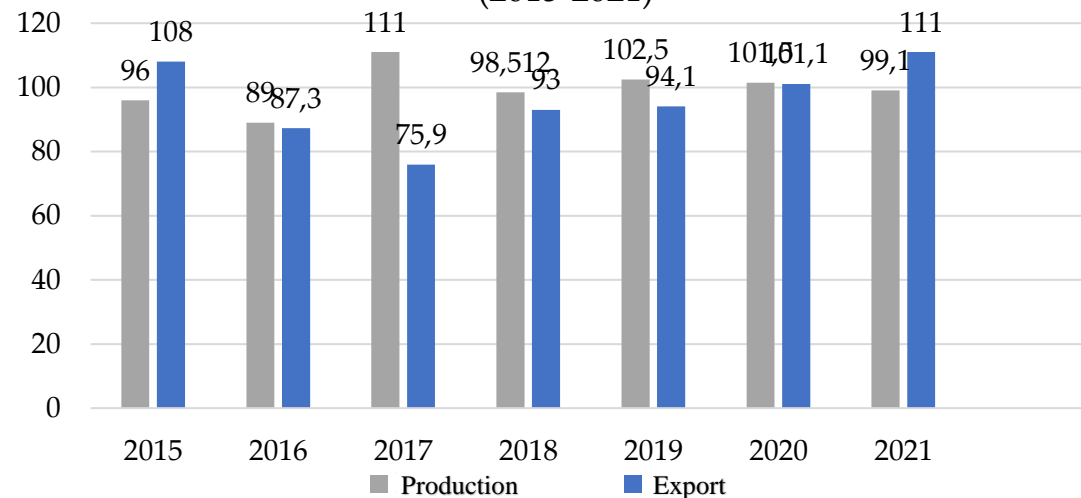
High share of imports of finished textile products from abroad

Not full use of existing production capacity

Export of raw cotton and yarn, thous. tons in the country



Production and export of cotton fiber, thous. tons (2015-2021)



SITUATION AND PERSPECTIVES OF COTTON PRODUCTION

Fig. 1 shows that over the last 50 years there were dynamic changes in the production of raw cotton in Tajikistan.

By 1980, Tajikistan reached its peak of the gross collection and productivity of cotton - 1 million tons of raw cotton with 250 thousand hectares of sown area, which is 40 centners/ha

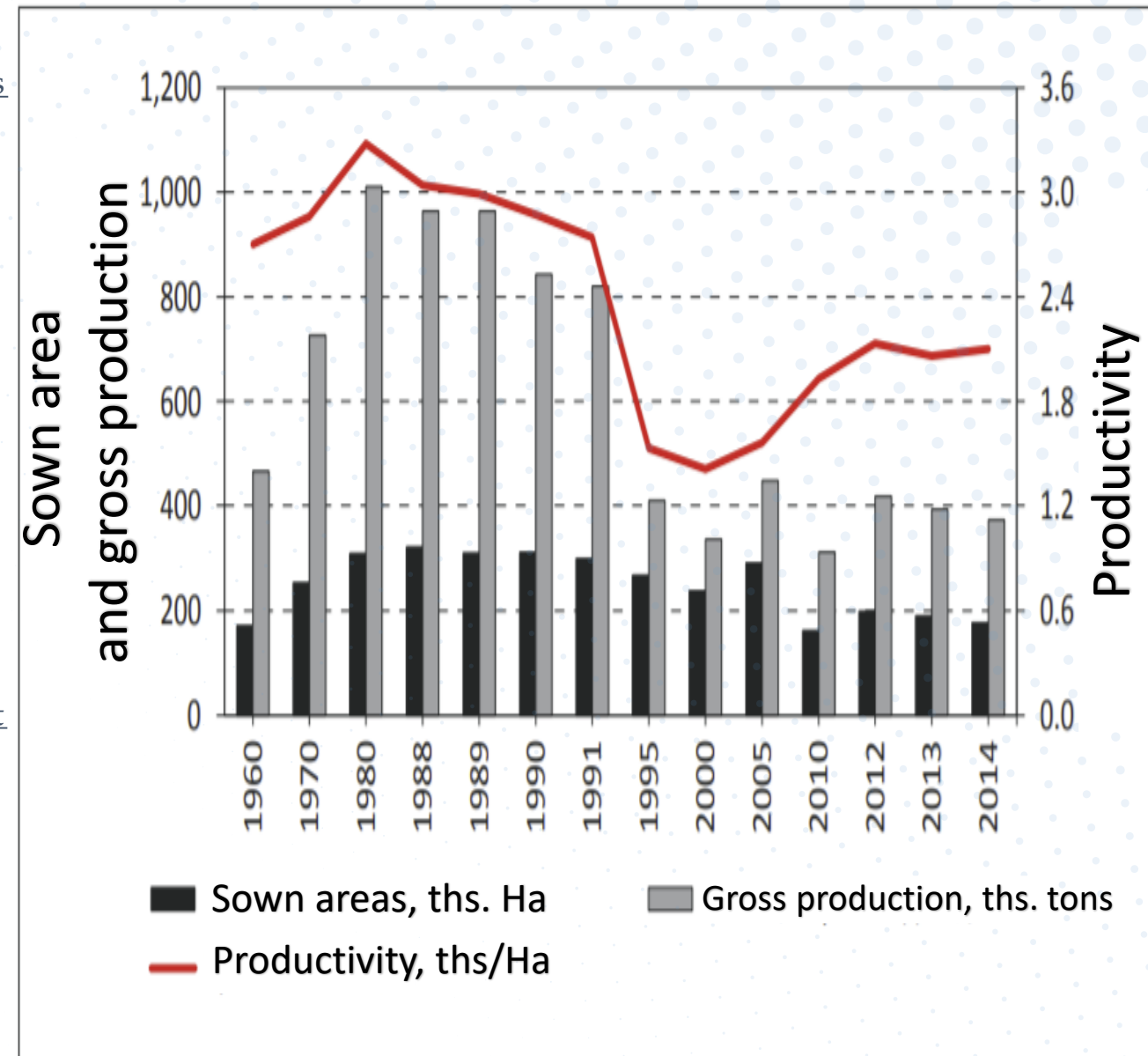
1980-1990 characterized by a slight decrease in the main indicators of the production of raw cotton

Then there was a sharp drop of all raw cotton production indicators, due to the followings:

- (i) In 1990s, the cultivation of cotton for rural producers lost all meaning due to the lack of incentives;
- (ii) Shortcomings of mineral fertilizers, agricultural machinery, that decreased the volume of organic fertilizers used for soil
- (iii) Outflow of highly qualified labour force from rural areas

TECHNOLOGICAL PROGRESS IN GROWING RAW COTTON BY THE TAJIK-CHINESE JV "ZHONGTAI DANGARA SIN SILU TEXTILE" ALLOWS UP TO 60 CENTNERS/HA OF RAW COTTON PICKING

Fig. 1. Sown areas, gross production and productivity of raw cotton in Tajikistan



DUSHANBE

Capital of the Republic

POPULATION: 1,1 mln. people

TRANSPORT INFRASTRUCTURE:

Highways: 70 km

Rails: 250 km

International airport in Dushanbe

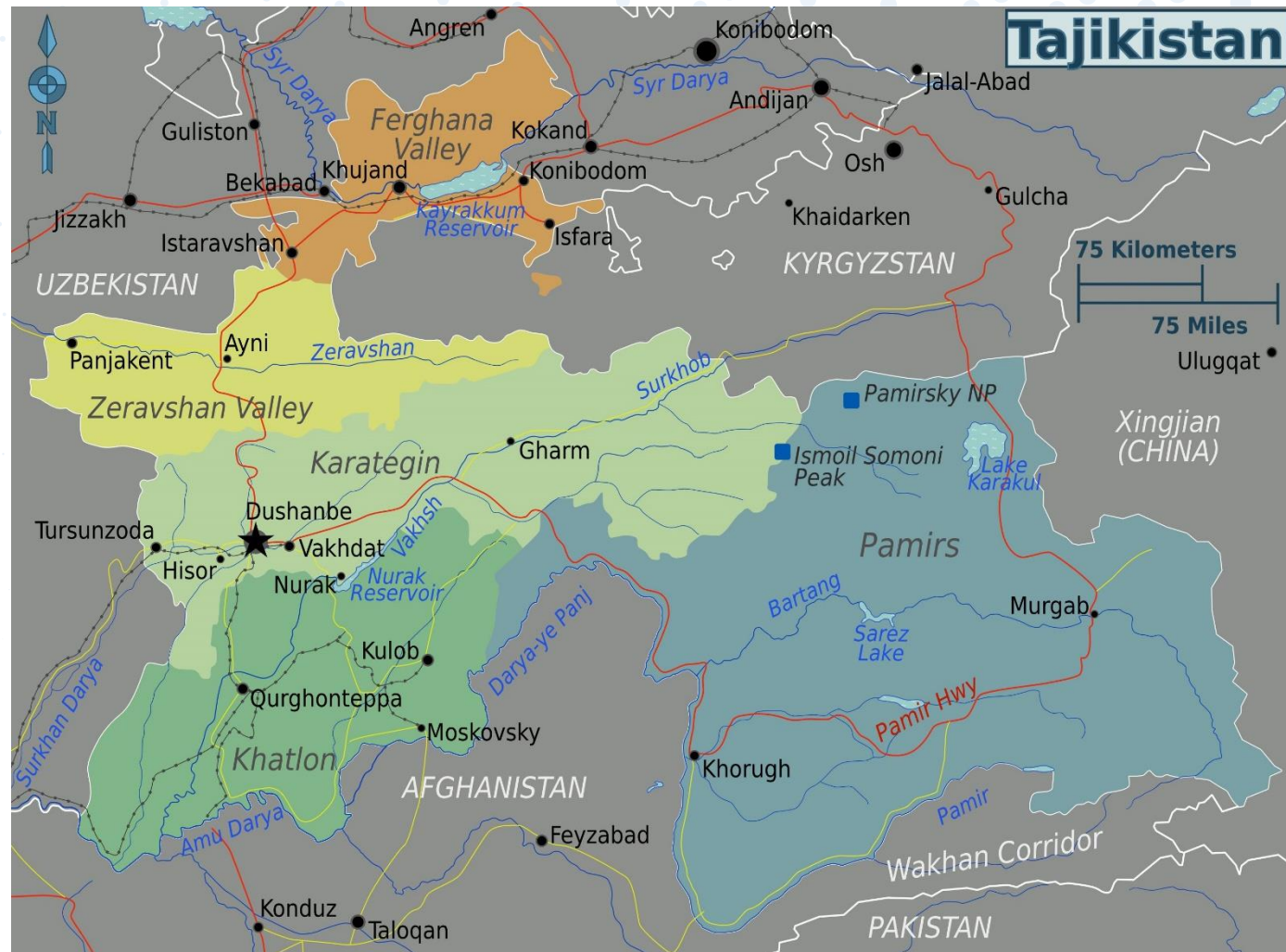
Climate:

Subtropical, continental

RIVERS: Varzob, Luchob

WATER RESERVOIR: -

DISTANCE TO Uzbekistan territory («Denav»): 70 km



CONDITION AND POSSIBILITIES OF COTTON PRODUCTION IN 5 DISTRICTS

Districts	Population (thous. people)	Actual sowing land, (Ha)	Available additional lands for cultivation of cotton (Ha):	Actual size of raw cotton in 2020 y, (tons)	Medium cotton yield, (cwt/Ha):
Shahrinav	120	201	-	449	22,3
Hissar	308,2	1214	-	2660	21,9
TURSUNZODA	300,2	1178	-	2113	17,9
VAHDAT	365	129	11	335	25,9
RUDAKI	585	354	8	654	18,5
TOTAL	1678	3076	19	37102	23

Raw cotton cultivation of sowing and perspective lands in 3 076 Ha for 5 regions makes it perspective construction of Textile Cluster

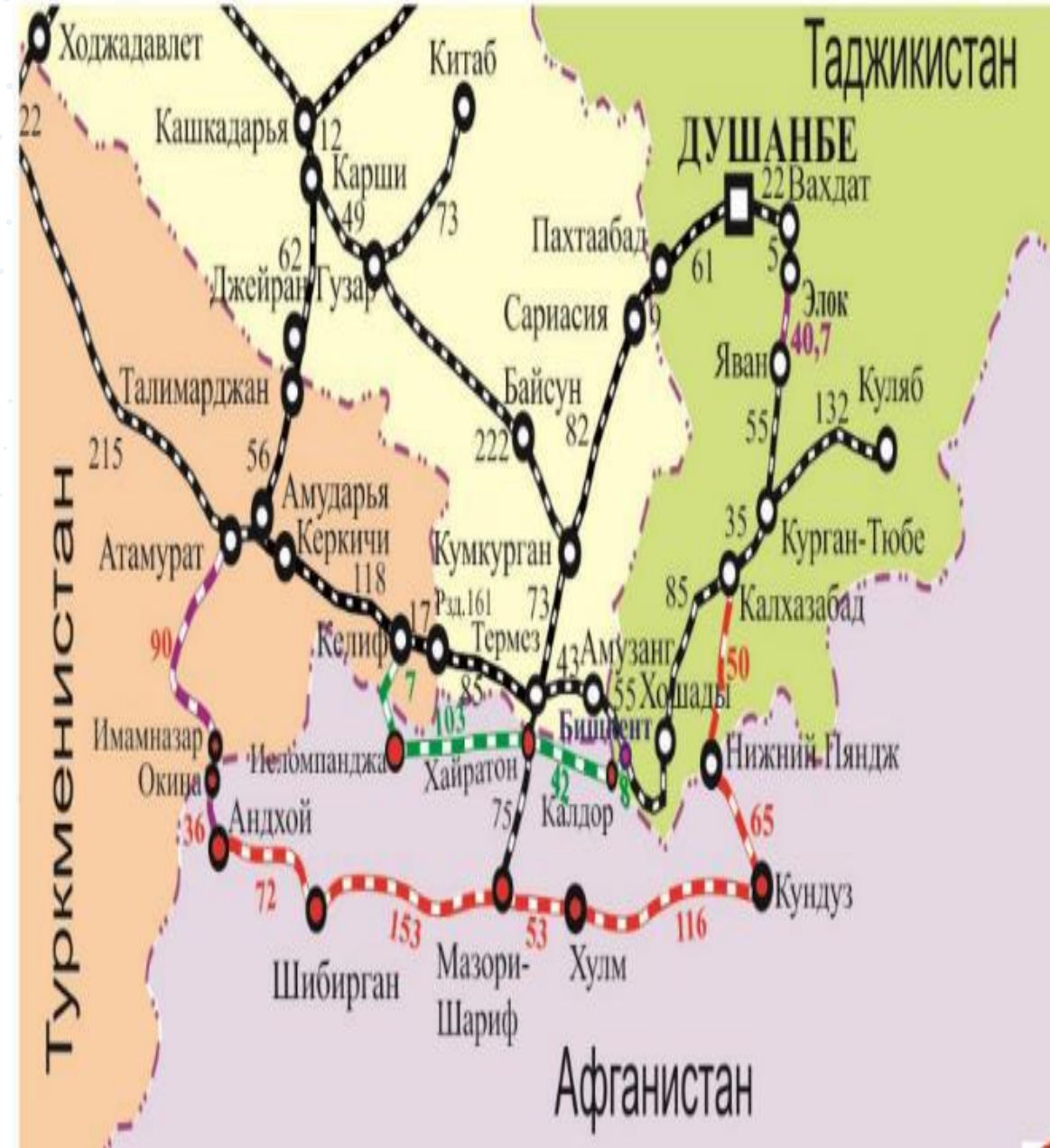
Climatic conditions and convenient geographical location can significantly reduce factory costs.

Logistic opportunities – international highways, international airport and Rail road station of Dushanbe make the project perspective.

Both by car and by rail it's possible to get to Tajikistan through neighboring countries.

The country has highways with Kyrgyzstan, Uzbekistan from northern part, From eastern part with China and from southern part with Afghanistan.

Dushanbe Rail road map





TEXTILE CLUSTER DEVELOPMENT SCHEME



COTTON SOWING ON
3 076 Ha OF LAND



STORAGE AND
PRIMARY PROCESSING
OF RAW COTTON



PRODUCTION
COMPLEX



SUBSIDIARY FARM

1

2

3

4

5

6

7

ACQUISITION OF AGROTECHNICS
(TRACTORS, COTTON-PICKING
MACHINES, ETC)



DEEP
PROCCESING OF
COTTON FIBER



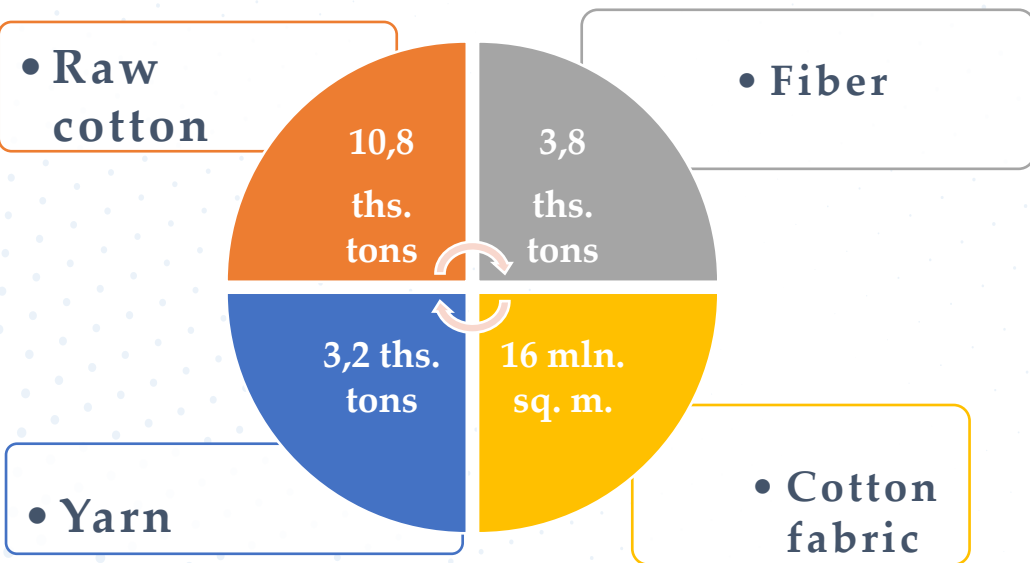
OIL
PRODUCTION
FACTORY



POSSIBLE VOLUME OF PRODUCTION of CLUSTER 4

in 3,1 ths. Ha

R.R.S. Dushanbe>Shahrinav, Hissor, Tursunzoda, Rudaki, Vahdat



Planned sown areas and cotton production volumes (2022)

(ths. tons)

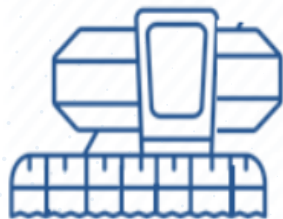
Districts	Area (Ha)	Version 1		Version 2		Version 3	
		Raw cotton harvest 25 C/Ha		Raw cotton harvest 35 C/Ha		Raw cotton Harvest 40 C/Ha	
		Raw cotton	Cotton fiber	Raw cotton	Cotton fiber	Raw cotton	Cotton fiber
SHAHRINAV	201,0	0,5	0,2	0,7	0,2	0,8	0,3
HISOR	1 214,0	3,0	1,1	4,2	1,5	4,9	1,9
TURSUNZODA	1 178,0	2,9	1,0	4,1	1,4	4,7	1,9
RUDAKI	354,0	0,9	0,3	1,2	0,4	1,4	0,6
VAHDAT	129,0	0,3	0,1	0,5	0,2	0,5	0,2
TOTAL	3 076,0	7,7	2,7	10,8	3,8	12,3	4,9

AGROTECHNICAL SERVICES



Tractors

JOHN DEERE (США)
CASE IH (США)
NEW HOLLAND



Combine-harvesters

JOHN DEERE (США)
CASE IH (США)



Sowing equipment

ORTHMAN (Германия)
SFOGGIA (Италия)
NARDI (Италия)



Sprayers

NARDI (Италия)
CASE IH (США)



Tillers

JOHN DEERE (США)
ORTHMAN (Германия)
SURE FIRE (Германия)



Trailers Storage containers

TINAZ (Турция)
DOGUMAK (Турция)



Car park

IVECO (Китай)
AGROS (Турция)

According to preliminary estimates, the number of agricultural machinery is **250** tractors, **1300** units, **20** cotton pickers, and the total purchase amount is about **17** million USD.

*final number of vehicles and prices will be specified after the approval of the feasibility study report of the project



TECHNOLOGICAL EQUIPMENT



Ginning production

LUMMUS (USA)
CONTINENTAL EAGLE (USA)



Spinning production

RIETER (Switzerland)
MURATA MACHINERY (Japan)
SIEGER (India) SAVIO
SIRIUS (Italy)



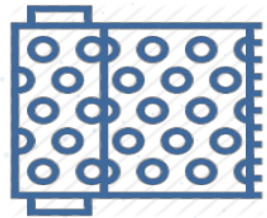
Weaving production

KARL MAYER (Germany)
STAUBLI (Switzerland)
PICANOL (Belgium)
DEMSAN (Turkey)



Circular knitting production

TERROT GmbH (Germany)
GÜVEN CELIK (Turkey)
Pailung Machinery Mill
Co., Ltd. (Taiwan)



Dyeing and finishing production

OSTHOFF (Germany)
ERBATECH (Belgium)
HAS GROUP (Turkey)
ELTEKSMAK (Turkey)
ZIMMER (Austria)
KUSTERS (Germany)
DEMSAN (Turkey)



Sewing production

SERKON (Turkey)
BROTHER (China)
JUKI (Taiwan)
KANSAY (Japan)
OZER MAKINA TEKSTIL
MALKAN (Turkey)
TEXPA (Germany)



RAW COTTON POINTS OF RECEPTION (7 PCS.)



**Stationary scales
(2 units for each item)**

"NAIS" Plant of weighing
equipment "NAIS"
(Russia)

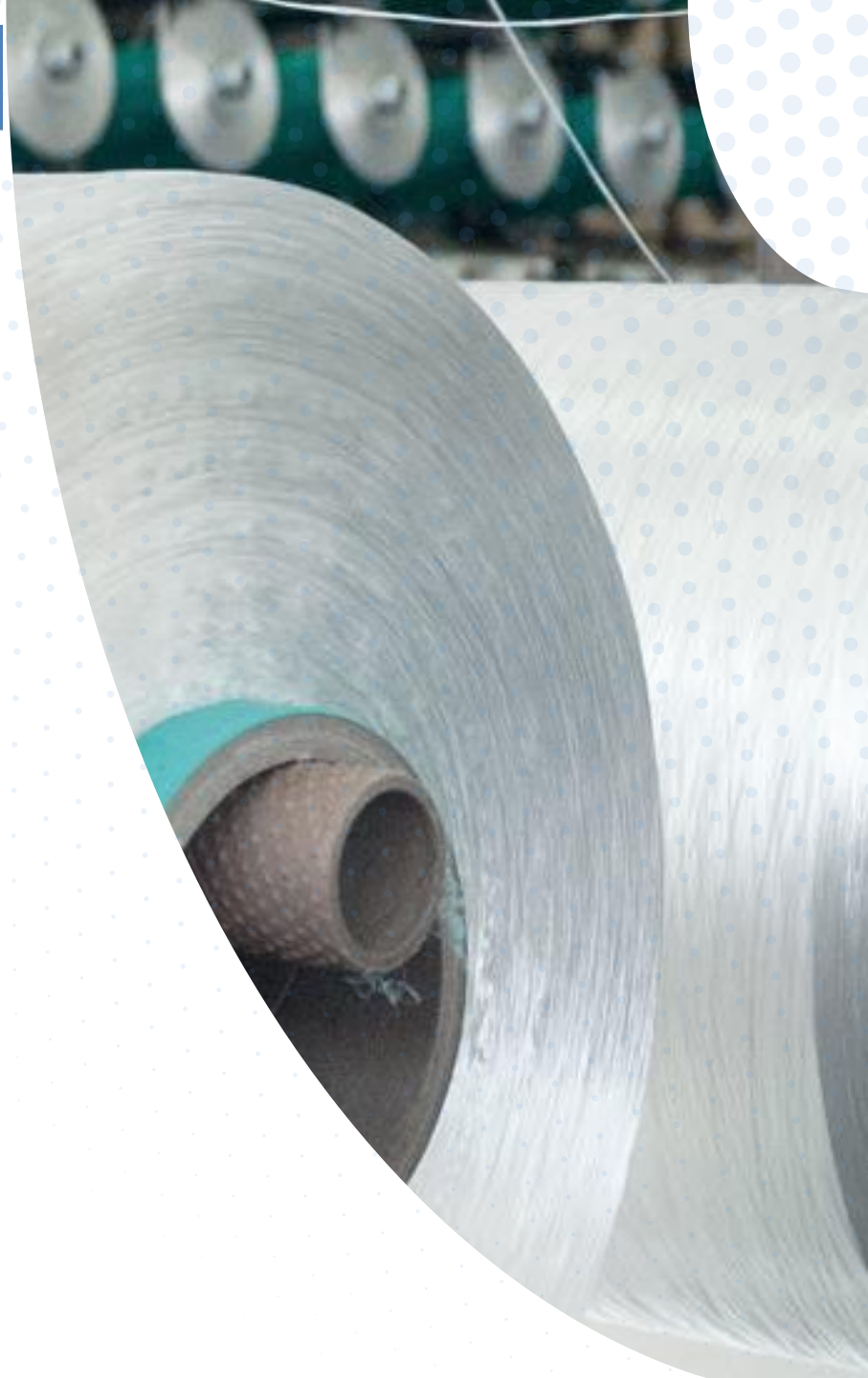
Vesy Rostov LLC
(Russia)



**Conveyer belt
(8 units for each item)**

FLIESSBAND GmbH
(Germany)

Company group
"Baltresino-technics"
(Russia)



COTTON CLEANER PRODUCTION



Productive capacity
- 10,5 tons of cotton fiber per day



Energy consumption:
Electricity – 750 000 kW
Natural gas – 60 000 m³



New workspaces – 25 units
with employment – 100 people

Cotton fiber
- 3800 tons

Cotton Yarn -
85%
- 3200 tons

Waste –
8%
- 304 tons

Moisture loss –
7% - 266 tons



TEXTILE PRODUCTION



Production capacity of factory – 8 767 kg/day, 3 200 000 kg/year



Creating workplaces 150 units
with employment about 250 people



Required total area – 2,0 Ha of land with total production
area 2 000 sq. m.

WEAVING PRODUCTION

Textile technology

Discover textile technologies designed to promote innovative solutions



8 mln. r.m finished fabric; 1,6 ths. tons ready knitted fabrics



Creation of workspaces 40 units with employment of more than 145 people.



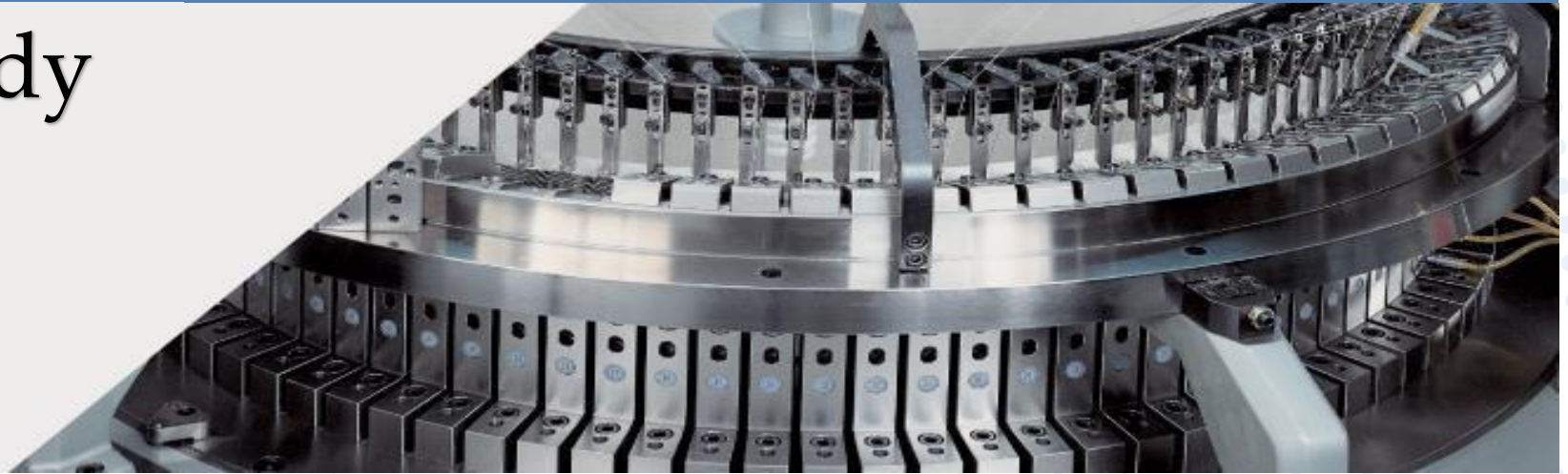
Required total area – 2,7 Ha of land area with total production area 1 800 sq. m.

ROUND KNITTING PRODUCTION

Created for embody
creative ideas

Knitel

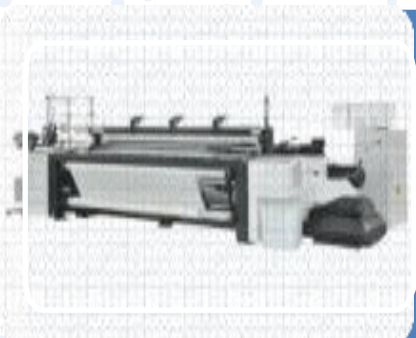
Round knitting machines



Production capacity 7,0 mln. r.m austere knitted cloth;



Creation of 35 units with employment more than 120 people.



Required total area 2 Ha of land area with total production area 1 100 sq. m.

DYEING AND FINISHING PRODUCTION



Readiness
for any application

dyeing and finishing equipment

Dyeing and Finishing



Production capacity 1,6 ths. Tons dyed knitted cloth/fabric



Creation workplaces – 10 units with employment of more than 35 people.



Required total area is 1,0 Ha of land area with total production area of 350 sq. m.

SEWING PRODUCTION

Quality step forward

Sewing Machines



Production capacity 6,0 mln. units of ready products



Created workplaces – 150 units;
with employment of more than 350 people



Required total area 1 Ha land area with total
production area 300 sq. m.

BED LINEN PRODUCTION



Bed Linen



Production capacity 1,0 mln. Units of ready product



Created workplaces 40 units
with employment of more than 80 people



Required total area 1,2 Ha of land area with total
production area 900 sq. m

OIL EXTRACTION PRODUCTION



Production capacity 7,0 mln. units of ready products



Created workplaces of 52 units
with employment of more than 158 people



Required total area is 2,5 Ha of land area with total
production area 1 780 sq. m

SUBSIDIARY FARM

SIMMENTAL PUR

Beste Fleischqualität aus der Region



Number of cattle 2000 units



Created workplaces 152 units
with employment more than 344 people



Required total area is 30 Ha with total construction area 5 780
sq. m. and pastures 800 Ha

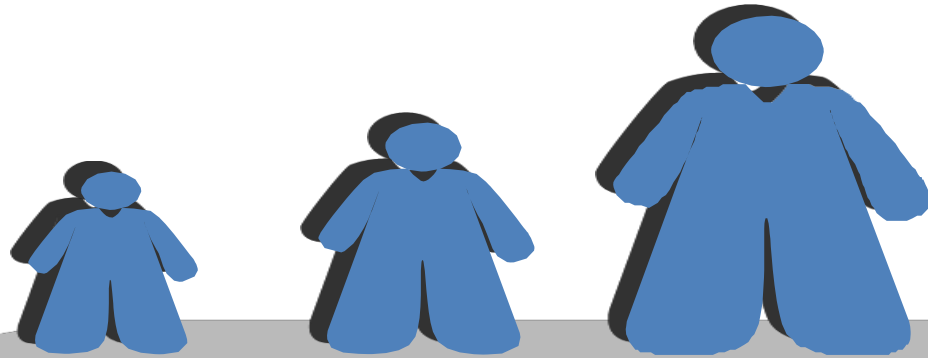
The most part of feed for cattle will be provided from its own production

SOCIAL EFFECT

> Personnel training and retraining system

> New workplaces

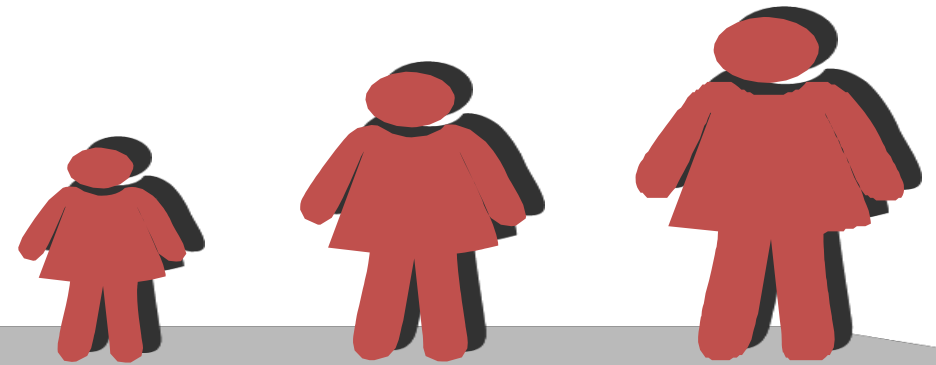
> Increased employment in the region;



Working conditions

Prestige

Social effect



Salary

Payments of socially related TAXes

Economic effect

VOLUME OF INVESTMENT (MLN. \$)

No	ACTIVITY	Created workplaces	Equipment cost	Construction and installation works' cost
1	Set of activities on sewing of cotton	300	13,3	0
2	Agro-service	407	20	0
3	Raw cotton harvest points (3 units)	20	4,0	0,5
4	Cotton ginning	31	1,8	0,7
5	Spinning production	150	15	-
6	Weaving production	145	2,0	1
7	Circular – knitting production	120	1,68	0,7
8	Dyeing and finishing production	110	2,67	0,3
9	Sewing production	150	0,96	0,3
10	Terry towels production	20	0,8	0,5
11	Oil extraction production	100	3,4	0,8
		1553	65,61	4,8
	Total:		70,41	