

REPORT

SUSTAINABLE PUBLIC PROCUREMENT IN THE REPUBLIC OF KAZAKHSTAN: MARKET READINESS AND PRODUCT PRIOTIZATION

Astana 2023

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UNEP is the leading global environmental body that sets the global environmental agenda, promotes the consistent implementation of the environmental dimensions of sustainable development within the United Nations system. This contributes to the transition to a low-carbon, resource-efficient and socially inclusive economy.

UNEP aims to strengthen the capacity of Central Asian countries in the field of sustainable public procurement and strengthen the capacity of businesses to respond to public tenders, taking into account sustainability criteria.

The views and conclusions expressed in this document do not necessarily reflect the official position of PAGE and UNDA project.

ABBREVIATIONS

CIS	Commonwealth of Independent States
COVID-19	Coronavirus infection of 2019
CU	Customs Union
DCP	Domestic Commodity Production
EAEU	Eurasian Economic Union
GWS	Goods, Works, Services
IE	Individual Entrepreneur
IPI	Industrial production index
ISO	International Organization for Standardization
LLP	Limited Liability Partnership
PAGE	Partnership for Action for a Green Economy Program
SPP	Sustainable Public Procurement
TM	Trademark
TR	Technical Regulation
UNEP	United Nations Environment Programme
USD	United States dollar
GOST	Interstate Standard
ST	Kazakhstan National Standard

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SUMMARY

Public procurement is an important element of the public services system and is responsible for meeting the needs of the state, as well as supporting entrepreneurship. On the other hand, PP can create incentives and promises for business transformation, innovation development and the emergence of more sustainable products

In accordance with the UNEP methodology for the implementation of Sustainable Public Procurement (SPP) in a country, it is necessary to assess the status of SPP and legal expertise. Afterwards, to determine priority goods, works and services in order to start piloting the introduction of SPP principles into the public procurement system.

The prioritization of goods is carried out in accordance with the impact of various products and services on the environment; priorities of government agencies (*their demand for a particular product, price, and financial budget*), the importance of the sector, based on market capacity, the share of local producers, increasing demand for products.

In order to determine priority goods and services, an analysis of public procurement of the Republic of Kazakhstan for the period of 2016 – 10 months of 2021 was carried out. According to the results of which the TOP 10 most purchased goods for each year were determined. In addition, the main selection criteria were used:

- volume of purchases;
- purchase value;
- import value;
- number of contracting authorities;
- number of suppliers.

According to the criteria “volume and value of purchase” in the period from 2016 to 2021 (10 months) the year in the top ten of constantly purchased goods were:

- electricity;
- gasoline;
- diesel fuel;
- jet fuel;
- natural gas;
- coal.

Taking into account Kazakhstan’s goal of achieving carbon neutrality by 2060, coal and hydrocarbon fuels (gasoline, diesel) were excluded from the list of priority goods. Electric energy was also excluded, since the source of 70% of its generation is coal.

Further, after excluding coal, fossil fuels and electricity, the remaining goods were re-sorted according to the criteria purchase volume, number of contracting authorities, number of Suppliers.

The TOP 10 most purchased products have been selected:

- Disposable medical Mask;
- Paper hygiene products (toilet paper, paper towel);
- Stationery (A4 cardboard folder, a simple notebook);
- Punched pockets for documents, with and without perforation, made of polypropylene film;
- Soap (household and toilet solid, toilet liquid);
- Chlorine-based disinfectants;
- Alcohol-based disinfectants;
- Detergents for washing dishes, glasses and mirror surfaces;
- Toner cartridge, black;
- Paint.

According to the goods selected in accordance with the specified criteria, an assessment of risks and benefits was carried out, within the framework of which the environmental impact, socio-economic consequences, and the availability of certification schemes were analyzed.

The assessment was carried out on the basis of scaling in accordance with the UNEP methodology¹, where the lowest score indicates a more sustainable product.

The assessment of market readiness allowed to analyze the availability of prioritized products on the market, which were identified for the pilot SPP, and to check the readiness of the business to produce products in a more environmentally friendly way, consume less resources (water, energy, etc.) throughout the life cycle and determine the difference in the price of the product

Based on the results of the analysis, it was determined that the demand from government agencies for prioritized goods is growing. At the same time, the share of domestic production varies on average at the level of 15-20%.

To date, the market of Kazakhstan is ready to provide alternative products for the analyzed products. The alternatives' price depends on the raw materials used and the methods of production. For example, recycled paper products will be cheaper, since there is plenty of raw materials for their production on the domestic market. Eco-friendly soap and washing products will be more expensive at a price than standard products, since imported vegetable oils and neutralizers are used in their production.

Often, resellers act as suppliers instead of manufacturers, which ultimately affects the price of the delivered goods.

The analysis of 10 priority products showed that the production of disinfectants and medical masks is more associated with the pandemic period, and therefore do not have the greatest potential for sustainability.

The following products have the highest potential for sustainability:

- Paper hygiene products (toilet paper, paper towel);
- Soap (household and toilet solid, toilet liquid);
- Detergents for washing dishes, washing glasses and mirror surfaces.

Paper products from recycled materials have minimal impact on the environment during the entire life cycle due to their low resource consumption and the possibility of recycling.

Soap and detergent products, despite their resource consumption, may have a minimal impact on the environment in the form of product packaging waste, which is also subject to recycling and the use of biodegradable components.

In this regard, the criteria for the sustainability of prioritized goods are: price, the share of local production and environmental impact, the latter of which is determined by using environmentally friendly methods of production and disposal of waste generated.

Thus, if the legislative framework of the Republic of Kazakhstan that is regulating the priority of purchases of products made from recycled materials starts operating, then it can contribute to the further growth of the industry and reduce the cost of products.

The introduction of the SPP principles into the procurement system would be the basis for improving environmental and social aspects in the development of roadmaps for industrialization, within which framework the domestic producers receive state support.

In turn, the introduction of new criteria will not become a hindering factor in the development of local companies, nor will it significantly affect the price of manufactured products, because, as already noted, sustainable goods are already present on the market today. For our part, we believe that the introduction of SPP can contribute to the growth of the share of Domestic Commodity Production (DCP) in public procurement.

¹Sustainable Public Procurement Implementation Guidelines (first edition): <https://www.oneplanetnetwork.org/knowledge-centre/resources/sustainable-public-procurement-implementation-guidelines>
Sustainable Public Procurement Implementation Guidelines (second edition):
<https://www.unep.org/resources/publication/second-edition-uneps-sustainable-public-procurement-guidelines>

1. OVERVIEW OF PUBLIC PROCUREMENT IN KAZAKHSTAN

The use of such a powerful potential as public procurement encourages manufacturers to innovate, including the production of environmentally friendly products and the use of the principles of resource renewal or circular economy.

The Law of the Republic of Kazakhstan “On Public Procurement” provides for public procurement by means of a tender using two-stage procedures that are carried out according to the list of goods, works, services approved by the Ministry of Finance of the Republic of Kazakhstan, in cases where:

- it is difficult to develop detailed specifications of goods, works, services and determine their technical and other characteristics, and (or) it is necessary to request proposals from potential suppliers or negotiate with them on the issues that have arisen;
- it is necessary to conduct research, experiments, development;
- innovative and high-tech goods, works, services are purchased.

At the same time, in order to reduce the burden on entrepreneurs, the obligation to secure an application for participation in the competition, which amounted to 1% of the amount of the competition, is excluded.

The Republic of Kazakhstan, developing and implementing the state policy in the field of public procurement, strives to improve procurement procedures. Due to the ongoing work, some of the principles of sustainable procurement have already been introduced into the public procurement system of the Republic of Kazakhstan.

Thus, during public procurement of works on modernization of technical equipment in terms of water and energy saving, the procurement organizer has the right to specify the principles of “sustainable procurement” in the tender documentation. Criteria for environmental and energy efficiency can be recycled water use and the use of energy-efficient technologies (energy consumption standards were approved by the Order of the Minister for Investment and Development of the Republic of Kazakhstan “On approval of energy consumption Standards” dated March 31, 2015 No. 394)².

At the same time, the list of goods, works, services, public procurement of which is carried out by means of a tender using two-stage procedures, requires expansion.

In turn, in the framework of prioritizing products for sustainable public procurement the analysis was carried out to identify the most purchased categories of products by the public sector, which are the most popular for public procurement and can be easily purchased taking into account inclusive sustainability criteria.

It is important to note that the study does not affect the purchase of services. In this connection, a number of products that are usually purchased through intermediaries /outsourcing were excluded.

For example, in practice, most government agencies rent buildings, computers and peripheral equipment from private organizations to carry out their activities in order to reduce government spending on:

- maintenance of specialists in electrics, plumbing, information technology, etc. - repair and purchase of electronic equipment (computers and accessories);
- repair and maintenance of the building.

All these costs are borne by the lessor on the basis of the lease agreement, freeing government agencies from searching for additional undeclared funds in case of emergency breakdowns or force majeure. In this regard, when analyzing in this report, goods and services that can be provided by the lessor were not considered.

For the purposes of this assessment the purchases in the period of 2016 to 2021 were analyzed, however, taking into account the annual increase in the Procurement Plan (*the results of the analysis are indicated below*), 2021 was taken as the primary basis.

At the first stage, the analysis of the most purchased goods of the TOP 10 for each year was carried out, using following main selection criteria:

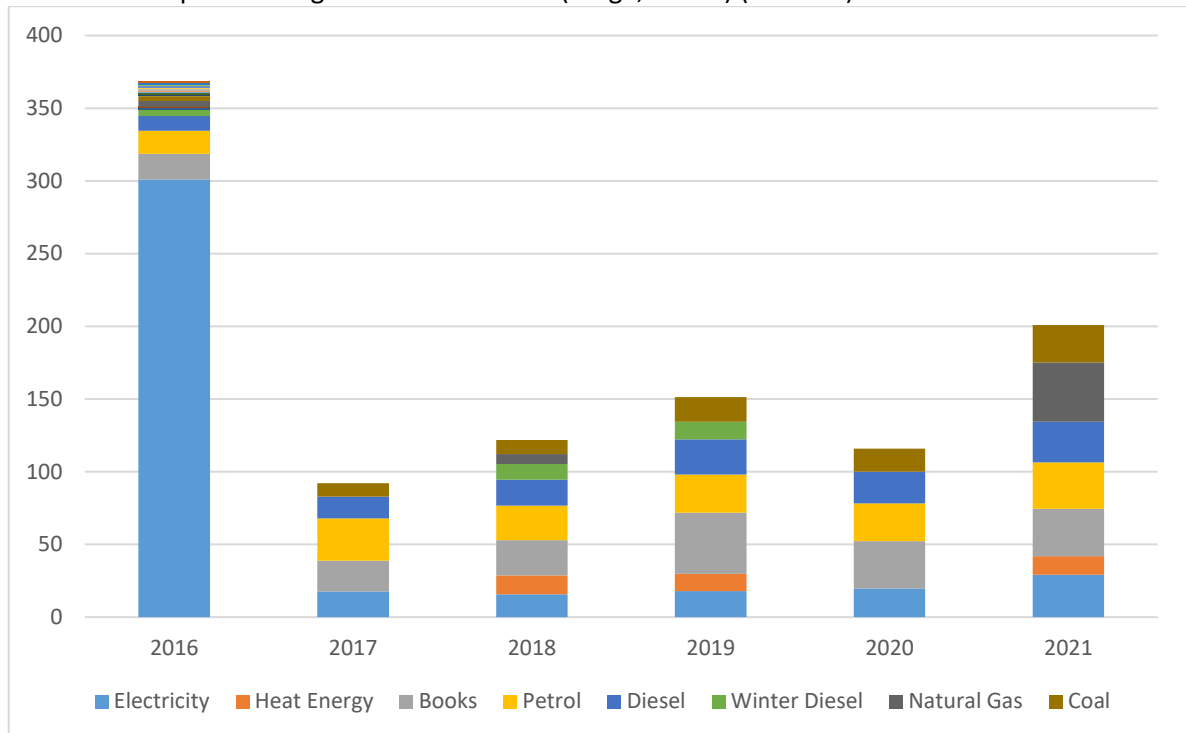
- volume of purchases;
- purchase value;

² <https://adilet.zan.kz/rus/docs/V1500011319>

- import value;
- number of contracting authorities;
- number of suppliers.

The analysis demonstrated the following (see charts 1, 2, 3, 4).

Chart 1. Most purchased goods in 2016-2021. (tenge, billion) (Annex 1).



Source: Ministry of Finance of the Republic of Kazakhstan.

The most purchased goods using the main criterion as the “purchase value” are electricity, coal, fuel, educational material, etc.

However, it is not possible to apply the principle of sustainable procurement to a commodity item “coal”, since in the future, purchases for this product are planned to be stopped due to the policy adopted by Kazakhstan on decarbonization of the economy. It is unlikely that it is possible to introduce principles of sustainability for the commodity items “fuel” and “electricity” in the short term. The reason is that 70% of electricity in Kazakhstan is generated by coal, while electricity from renewables accounts only for 3%.

At the same time, due to high prices for renewable energy in comparison with coal generation, the Law “On support for the use of renewable energy sources” is introduced in Kazakhstan. According to this law, electricity from renewable energy sources is purchased by a single Operator (“Financial Settlement Center of Renewable Energy” Limited Liability Partnership (LLP)), which resells this energy to traditional stations on an imperative basis.

Thus, the energy from renewable energy sources is distributed to all consumers after its purchase by traditional stations, which reduces the effect of high prices for renewables. On the other hand, bilateral contracts for the purchase of energy from renewable energy sources do not function in Kazakhstan because of the above mentioned scheme. Therefore, the purchase of electricity was also excluded from priority goods, since it is not possible to track the type of electric energy (from coal or renewable), which is delivered to the end consumer in Kazakhstan.

Regarding the fuel, Kazakhstan completed the modernization of its oil refineries in 2018, which made it possible to increase fuel production by 2 times, as well as improve quality indicators to Euro-4, Euro-5 standards. At the same time, prices for fuel are much cheaper in Kazakhstan, than in neighboring states and partner states of the Eurasian Economic Union. In particular, the difference in gasoline price with Kyrgyzstan is 80 tenge per liter, and with Russia it is 120 tenge. It leads to significant flows of fuel to neighboring countries, causing periodic difficulties with the sufficiency of fuel in the domestic market.

In this regard, in the current conditions, the Government of the Republic of Kazakhstan has no plans for further modernization of the refinery and improving the quality of fuel to Euro-6, and, consequently, the commodity item “fuel” should not be improved in the near future from an environmental point of view. Hence, it was excluded from the goods that can be prioritized in the implementation of the principles of SPP.

Besides, during the coronavirus pandemic in the period from 2020 to 2021, one of the most purchased goods was the medical module, the annual volume of purchases of which amounted to more than 40 billion tenge.

In this regard, an analysis of the most purchased goods for a wider period (from 2016 to 2021 in the context of each year) was carried out in order to exclude the impact of coronavirus infection and identify priority goods more reliably, with the main selection criteria being:

- volume of purchase;
- number of contracting authorities;
- number of suppliers.

These criteria were determined to analyze the objective demand for goods and competition in the market. In particular, if the analysis took place only by the criterion of “volume of purchase”, then goods that are purchased by one contracting authority and in a large volume (on a one-time basis), were considered. The introduction of the criterion “number of contracting authorities” allows to estimate a degree of wide usage and demand among government buyers for a particular product. The criterion “number of Suppliers” was needed to assess competition in the market and exclude monopolization of the market.

At the same time, the product range was analyzed and displayed in the appropriate categories. The analysis showed the following.

Chart 2. Most purchased goods in 2016-2021 (volume of purchases, million, units) (Annex 2).

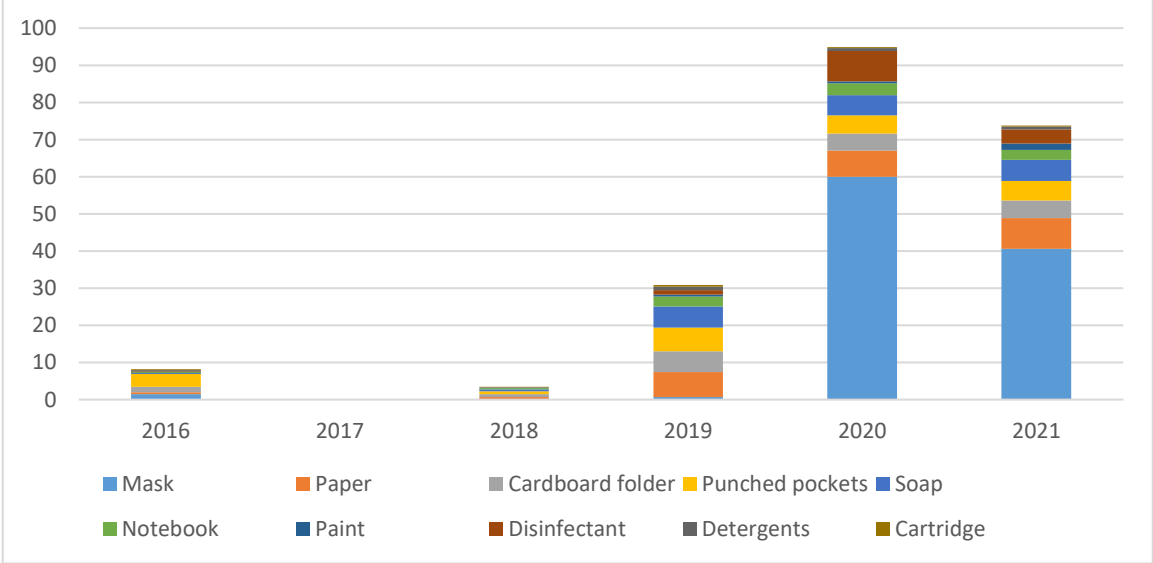


Chart 3. Most purchased goods in 2016-2021 (*number of contracting authorities*) (Annex 2).

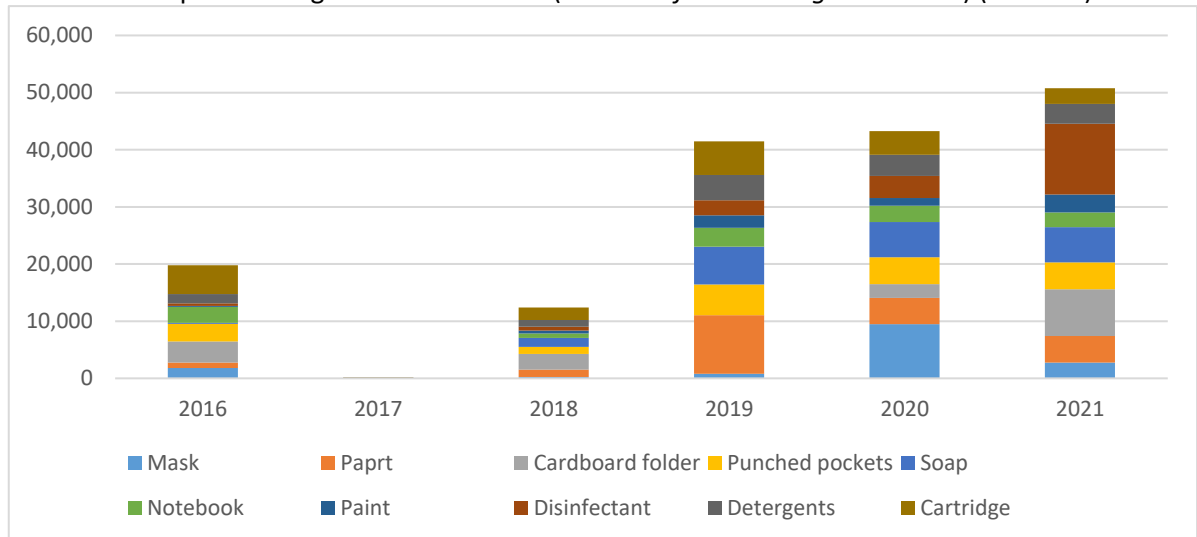
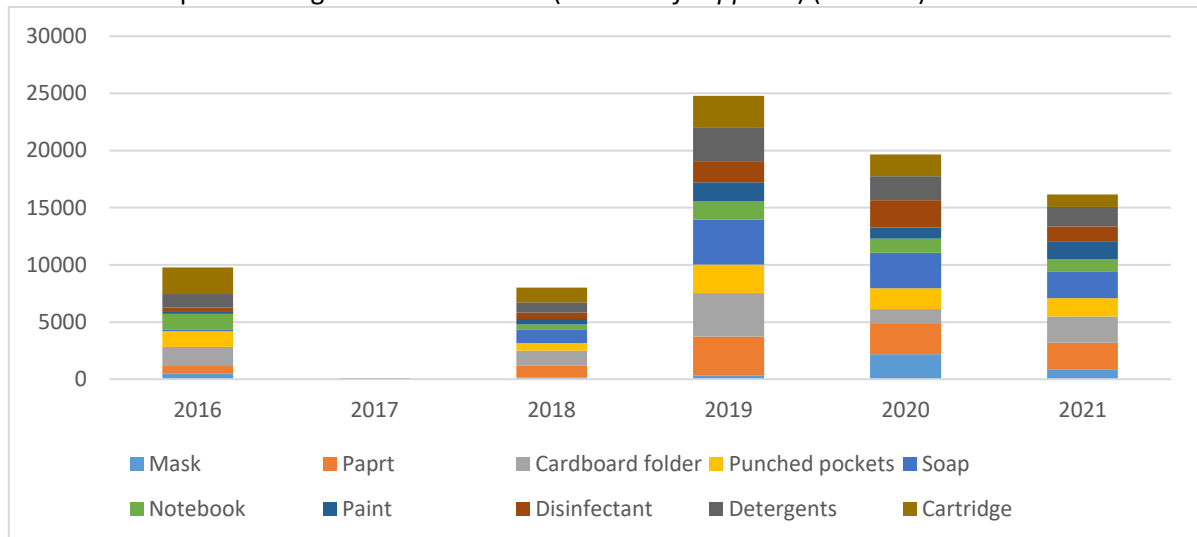


Chart 4. Most purchased goods in 2016-2021 (*number of suppliers*) (Annex 2).



The analysis demonstrates that the most purchased goods are cleaning and hygiene products and office supplies. At the same time, the dynamics of the most purchased goods is constantly changing. If in 2016, “Cartridge” was among the most purchased goods among contracting authorities (5,002 units of contracting authorities), then in 2021 the most purchased product became a “Disinfectant” (12,350 units of contracting authorities), due to the epidemic of coronavirus infection.

By Order of the Minister of Finance of the Republic of Kazakhstan dated December 22, 2016 No. 683, the Rules for Public Procurement were adopted, according to which documents on the execution of public procurement contracts - invoices, acts of delivery of goods, performance of works and provision of services from January 1, 2017 began to be issued exclusively in digital format. The restructuring of the public procurement system has led customers and suppliers to some difficulties that have affected the actual data in the system.

Chart 5. Dynamics of changes in the most popular commodity items (depending on the number of contracting authorities).

2016	Cartridge	1.2 bln. KZT. – 5 002 Customers
2017	Cartridge	6 mln. KZT. – 26 Customers
2018	Folder	68 mln. KZT. – 2 726 Customers
2019	Paper	894 mln. KZT. – 10 235 Customers
2020	Mask	3.3 bln. KZT. – 9 500 Customers
2021	Disinfectant	3.1 bln. KZT. – 12 350 Customers

As it was noted, due to the coronavirus pandemic, the purchases of “Mask” and “Disinfectant” products have increased by several times.

At the same time, the indicator of the volume of these goods in 2021 increased several times compared to 2016:

- product - “Mask” from 24.8 million tenge in 2016 to 523 million tenge in 2021 (21 times);
- product – “Disinfectant” from 98.9 million tenge in 2016 to 4.1 billion tenge in 2021 (41 times).

2. PRIORITIZED PRODUCTS, ENVIRONMENTAL RISKS AND BENEFIT ASSESSMENT

This section sets the priorities based on the UNEP methodology for prioritizing goods and services for SPP by assessing environmental, economic and social risks and the benefits.

The analysis of the most purchased goods for the period from 2016-2021 in the context of each year showed that according to the criteria (volume of purchase, number of contracting authorities, number of Suppliers), 10 goods are the most purchased.

In order to increase the correctness of the assessment, environmental impact and production technology products are grouped based on similar properties, and the goods with different composition are divided.

For example, disinfectants are divided into alcohol-based and chlorine-containing disinfectants, since their impact on the environment cannot be assessed as a single product. And the notebooks are grouped together with cardboard folders, since their production is similar and the raw materials are the same.

The list of 10 most purchased goods to be analyzed for SPP:

1. Disposable medical mask;
2. Paper hygiene products (toilet paper, paper towel);
3. Stationery (A4 cardboard folder, a simple notebook);
4. Punched pockets for documents, with and without perforation, made of polypropylene film;
5. Soap (household and toilet solid, toilet liquid);
6. Chlorine-based indoor disinfectants, liquid and powdered;
7. Alcohol-based disinfectants;
8. Detergents for washing dishes, glasses and mirror surfaces;
9. Toner cartridge, black;
10. Paint.

2.1 ENVIRONMENTAL IMPACT

To assess the impact of goods on the environment, an assessment scale from 1 to 4 was applied, where the lowest value stands for the best performance indicator.

The assessment was carried out according to such criteria as the impact on natural components and humans, resource consumption and waste generation.

The assessment of the impact of goods on the environment during the entire life cycle is given in Table 1.

Table 1. Assessment of the environmental impact of goods during the entire life cycle.

	Type of products	Toxicity of the product	Emissions into the atmospheric air during the production of goods	Discharges into water reservoirs during the production of goods	Greenhouse gas emissions	Impact on water resources	Energy consumption	Waste generation	Total Score (Impact)
1	Disposable medical mask	1	3	1	4	1	4	4	18
2	Paper hygiene products (<i>toilet paper, paper towel</i>)	1	4	2	3	2	3	4	19
3	Stationery (<i>A4 folder, folder made of coated cardboard, A4 format, simple notebook</i>)	1	3	2	3	2	2	4	17
4	Punched pockets for documents, with and without perforation, made of polypropylene film	2	2	0	3	0	4	4	15
5	Soap (<i>household and toilet solid, toilet liquid</i>)	1	1	1	2	4	4	2	15
6	Chlorine-based indoor disinfectant, liquid and powdered	3	3	2	2	4	4	3	21
7	Alcohol-based disinfectant	1	1	0	2	3	3	3	13

8	Detergent for washing dishes, glasses and mirror surfaces	2	2	1	3	4	1	3	16
9	Toner cartridge, black	1	4	1	4	2	4	4	20
10	Water-dispersion paint	3	4	2	4	4	2	1	20

2.2 SOCIO-ECONOMIC IMPACT

The socio-economic impacts of goods are assessed in Table 2 according to three criteria (gender equality, job places for the disabled, share of DCP) on a scale from 1 to 4, where the lowest value stands for the best performance indicator.

Table 2. Socio-economic impact of goods.

	Type of products	Gender equality	Job places for the disabled	Share of domestic commodity production	Total Score
1	Disposable medical mask	1	1	1	3
2	Paper hygiene products (<i>toilet paper, paper towel</i>)	1	1	3	5
3	Stationery (<i>A4 folder, folder made of coated cardboard, A4 format, simple notebook</i>)	1	1	3	5
4	Punched pockets for documents, with and without perforation, made of polypropylene film	1	1	3	5
5	Soap (<i>household and toilet solid, toilet liquid</i>)	1	3	3	7
6	Chlorine-based indoor disinfectant, liquid and powdered	1	3	3	7
7	Alcohol-based disinfectant	1	2	3	6
8	Detergent for washing dishes, glasses and mirror surfaces	1	2	3	6
9	Toner cartridge, black	3	2	3	8
10	Water-dispersion paint	1	2	3	6

2.3 ECO-LABELS AND CERTIFICATION SCHEMES

Kazakhstan previously officially operated the standard “Environmentally friendly products”, which was canceled on January 1, 2016, in connection with Kazakhstan's accession to the Eurasian Economic Union (EAEU).

Consequently, the technical regulations of the Customs Union on product safety are currently in force on the territory of Kazakhstan.³ In addition, the Rules for the production and turnover of organic products⁴ that ensure the safety of organic production are also in place.

The main types of labeling of goods are production and transportation. The production marking consists of information describing the title, weight, size, information about the manufacturer, the regulatory document under which the production is carried out, information about the confirmation of compliance - if the goods have a certificate of the Customs Union and a declaration of the Customs Union, a certificate of compliance with GOST RK. The transport marking of the goods allows to determine in which country the products were manufactured and their characteristics.

In addition, Kazakhstan adheres to international standards that comply with the legislation of the European Union. Domestic products are marked with such international labels as, for example, the “Mobius Loop”, indicating the possibility of processing packaging or producing it from recycled materials, “Throwing it in the trash” or Keep your country tidy, which means that this package should be thrown into the trash, “Glass-fork”, meaning that the product is made of non-toxic material and can come into contact with food, international standard “ISO 14001”, which demonstrates commitment to meeting environmental requirements to its contracting authorities.

Table 3 demonstrates the assessment of prioritized goods based on the availability of standards that operate on the territory of the Republic of Kazakhstan. The smallest number signifies the presence of a marking, a certificate of quality of goods registered in Kazakhstan, a national/state standard with a requirement for product quality.

Table 3. State standards regulating requirements for the quality and inspection of goods, which were identified as prioritized in the Republic of Kazakhstan.

	Type of products	Standard title	Total Score
1	Disposable medical mask	GOST 12.4.293-2015 (EN 136:1998) “The system of occupational safety standards. Personal respiratory protective devices” ⁵ ST RK 2686-2015 “Medical products made of non-woven material. Technical conditions” ⁶	1
2	Paper hygiene products (<i>toilet paper, paper towel</i>)	ST RK GOST R 52354-2008 “Household and sanitary-hygienic paper products. General technical conditions” ⁷	1
3	Stationery (<i>A4 folder, folder made of coated cardboard, A4 format, simple notebook</i>)	GOST 9327-60 “Paper and paper products. Consumer formats” ⁸ GOST 13309-90 “General/Common Notebooks Technical Conditions” ⁹	2

³ <https://adilet.zan.kz/rus/docs/H11T0000881>

⁴ <https://adilet.zan.kz/rus/docs/V2000020277>

⁵ https://online.zakon.kz/Document/?doc_id=34599212

⁶ https://online.zakon.kz/Document/?doc_id=36221136

⁷ https://online.zakon.kz/Document/?doc_id=31865005

⁸ https://online.zakon.kz/Document/?doc_id=30602395

⁹ https://online.zakon.kz/Document/?doc_id=39289050

4	Punched pockets for documents, with and without perforation, made of polypropylene film	-	4
5	Soap (<i>household and toilet solid, toilet liquid</i>)	<p>GOST 23361-78 "Foaming agents. Technical conditions"¹⁰</p> <p>GOST 28546-2014 "Solid toilet soap. General technical conditions"¹¹</p> <p>GOST 31696-2012 "Cosmetic hygienic washing products. General technical conditions"¹²</p> <p>GOST 790—89 "Solid household and toilet soap. Acceptance rules and measurement methods"¹³</p>	1
6	Chlorine-based indoor disinfectant, liquid and powdered	<p>GOST 25644-96 "Detergents synthetic powdered. General technical requirements"¹⁴</p> <p>ST RK GOST R 51214-2003</p> <p>"Capping. General provisions on safety, marking and acceptance rules"¹⁵</p>	1
7	Alcohol-based disinfectant	<p>ST RK GOST R 51214-2003</p> <p>"Capping. General provisions on safety, marking and acceptance rules"¹⁶</p>	1
8	Detergent for washing dishes, glasses and mirror surfaces	<p>GOST 31696-2012 "Cosmetic hygienic washing products. General technical conditions"¹⁷</p> <p>GOST 23361-78 "Foaming agents. Technical conditions"¹⁸</p>	1
9	Toner cartridge, black	ISO/IEC 24711:2015. "Method for the determination of ink cartridge yield for colour inkjet printers and multi-function devices that contain printer components" ¹⁹	4
10	Water-dispersion paint	ST RK GOST R 52020-2007 (GOST R 52020-2003, IDT)	1

¹⁰ https://online.zakon.kz/Document/?doc_id=30356765

¹¹ https://online.zakon.kz/Document/?doc_id=33817386

¹² https://online.zakon.kz/Document/?doc_id=31647895

¹³ https://online.zakon.kz/Document/?doc_id=31075558

¹⁴ https://online.zakon.kz/Document/?doc_id=31069332

¹⁵ https://online.zakon.kz/Document/?doc_id=30028314

¹⁶ https://online.zakon.kz/Document/?doc_id=30028314

¹⁷ https://online.zakon.kz/Document/?doc_id=31647895

¹⁸ https://online.zakon.kz/Document/?doc_id=30356765

¹⁹ https://online.zakon.kz/Document/?doc_id=35749278

		“Water-dispersion paint and varnish materials. General technical conditions” ²⁰	
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2.4 GENERAL ASSESSMENT OF PRIORITIZED PRODUCTS

The overall assessment of priority goods, carried out according to the UNEP methodology, is summarized in Table 4.

According to the results of the assessment, the following 3 categories of products (from the TOP 10 list) are offered as the most sustainable:

- Alcohol-based disinfectants;
- Soap (household and toilet solid, toilet liquid);
- Punched pockets for documents, with and without perforation, made of polypropylene film.

Some of 3 categories of products are not included in the final list. The reason is as follows.

Alcohol-based disinfectants, punched pockets and soap scored the lowest points (demonstrating the highest potential for sustainability and/or the lowest impact on environment), but the demand for the first two products in the future may decrease for the following reasons.

Alcohol-based disinfectants are in demand amid the COVID-19 pandemic. Despite the continuation of the pandemic period, compared with 2020, the volume of purchases of alcohol-based disinfectants has decreased by a half in 2021. It is assumed that the demand for this product will continue to decrease in the future.

The pandemic has expanded the possibilities of remote work, developing the digitalization of the country. It has led to a reduction in paper documentation, along with the tangible assets for their storage. Consequently, it is expected that in the near future the demand for a “Punched pockets for documents” will gradually decrease.

In this regard, “Alcohol-based disinfectant” and “Punched pockets for documents, with and without perforation, made of polypropylene film” are excluded from the list of prioritized products. At the same time, “paper hygiene products” (*toilet paper, paper towel*), detergent for washing, in particular for dishes, glasses and mirror surfaces may be considered as a sustainable product.

For example, paper hygiene products can be made from recycled materials, which affects the environmental friendliness and economic benefit. And use of biodegradable components in cleaning liquid for dishes and surfaces decreases the environmental impact.

More detailed information about priority products is provided in Section 5.

²⁰ https://online.zakon.kz/Document/?doc_id=31401247

Table 4. Overall assessment of prioritized products for the SPP

Type of products	Expenditures			(B) Average price premium of sustainable product (max score 8)	(C) Market availability of sustainable product (max score 10)	(D) Environmental impact (max score 7)	(E) Socio-economic impact (max score 2)	(F) Eco-labels or certification systems in place (max score 5)	Total Score (A+B+C+D+E+F)	Final Ranking
	Total amount of contracts value (KZT)	Share of the total amount (%)	(A) Score based on the total amounts (max score 10)							
Alcohol-based disinfectant	2,647,58 2,519.29	27%	10	1	3	4	1	1	20	1
Punched pockets for documents, with and without perforation, made of polypropylene film	150,450, 743.67	2%	1	3	6	4	2	5	21	2
Soap (household and toilet solid, toilet liquid)	917,057, 153.45	9%	6	3	5	4	2	1	21	2
Stationery (A4 folder, folder made of coated cardboard, A4 format, simple notebook)	617,442, 470.93	6%	5	5	5	5	1	3	24	3
Detergent for washing dishes, washing glasses and mirror surfaces	324,126, 548.20	3%	2	4	8	6	2	1	23	3

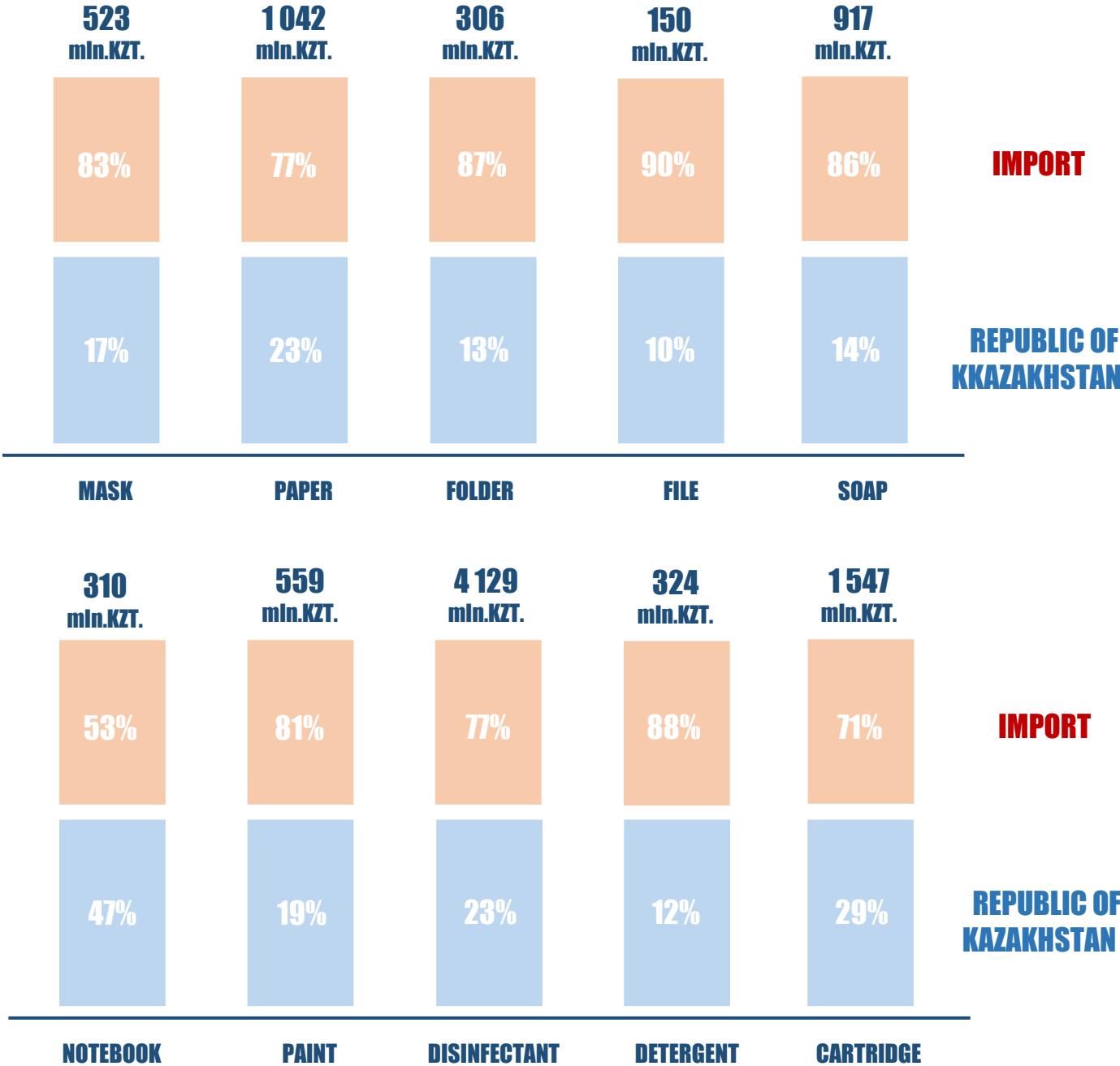
Disposable medical mask	523,280,660.73	5%	3	6	10	6	1	1	27	4
Paper hygiene products (<i>toilet paper, paper towel</i>)	1,042,302,067.01	11%	7	7	5	7	1	1	28	4
Chlorine-based indoor disinfectant, liquid and powdered	1,481,526,002.25	15%	8	8	7	7	1	1	32	4
Toner cartridge, black	1,547,349,062.76	16%	9	8	9	7	1	5	39	4
Water-dispersion paint	559,302,930.14	6%	4	8	5	7	1	1	26	4
	9,810,420,158.43	100%								
	805,300,000,000.00									

3. ANALYSIS OF PARTICIPATION OF KAZAKHSTAN’S PRODUCERS IN PUBLIC PROCUREMENT OF PRIORITIZED GOODS FOR SPP

In accordance with the provisions of the Treaty on the EAEU in relation to state (municipal) procurement, member States ensure the provision of national treatment, that is, the obligation to provide persons of other member states with the same conditions in procurement as for domestic enterprises.

Thus, to date, there are no preferences for DCP in public procurement of the Republic of Kazakhstan. In this regard, currently the share of imports in the Kazakh public procurement market is relatively high. For example, the analysis of the share of imported goods purchased by the Republic of Kazakhstan was carried out.

Chart 6. The share of imported goods (*the most purchased goods in 2021 are taken as an example*).



As seen from the analysis, the share of imported goods purchased by the Republic of Kazakhstan is about 80%, while only 20% is accounted for by domestic producers.

For example, the volume of purchases for 2020 amounted to 124.6 billion USD in the Russian Federation, and 11.2 billion USD in the Republic of Kazakhstan.

At the same time, the share of participation of Kazakhstan's suppliers in public procurement of the Russian Federation amounted to 74,000 USD, while Russian suppliers in the Republic of Kazakhstan – 529,000 USD.

Further, more details are presented, demonstrating the changes in the balance of supply and demand, as well as prices for the below-mentioned TOP 10 products, which were defined as prioritized SPP in the RK (see Section 2).

- 1 Disposable medical mask;
- 2 Paper hygiene products (toilet paper, paper towel);
- 3 Stationery (A4 cardboard folder, a simple notebook);
- 4 Punched pockets for documents, with and without perforation, made of polypropylene film;
- 5 Soap (household and toilet solid, toilet liquid);
- 6 Chlorine-based indoor disinfectant, liquid and powdered;
- 7 Alcohol-based disinfectants;
- 8 Detergents for washing dishes, glasses and mirror surfaces;
- 9 Toner cartridge, black;
- 10 Paint.

In sections 3.1-3.9, data of the Ministry of Finance of the Republic of Kazakhstan from 2016 to 2021 is given for each product based on the following categories:

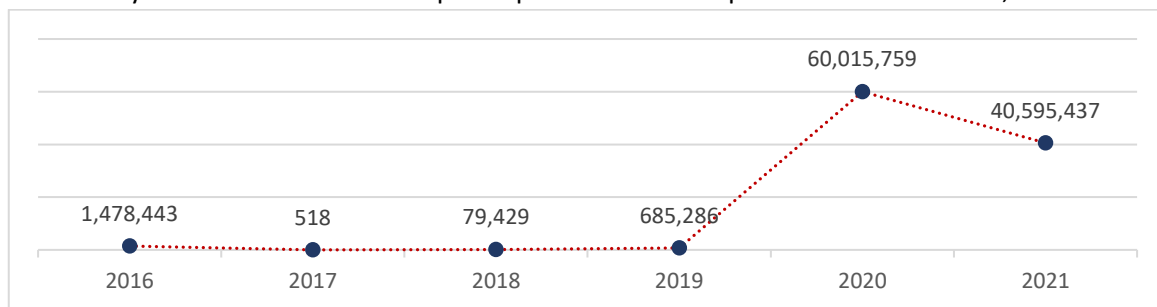
1. Dynamics of the volume of public procurement – the number of units of purchased goods.
2. Dynamics of the value of public procurement – the total cost of purchased goods in the national currency – tenge (KZT).
3. The dynamics of the share of DCP in the purchase - a reflection of the share of imports and exports in the purchase of a certain product.
4. The TOP 5 Customers with the largest volume of public procurement in 2021 – Kazakhstan's customers by the number of units of purchased goods.
5. Dynamics of the number of customers – change in the number of customers of products.
6. The TOP 5 Suppliers with the largest volume of public procurement in 2021 – Kazakhstan's suppliers by the number of units of purchased goods.
7. Dynamics of the number of Suppliers – change in the number of suppliers of products.
8. Dynamics of average purchased prices of goods – prices for a certain product in tenge.

3.1 Disposable medical mask

The main contracting authorities of these products in public procurement are medical institutions. However, due to the coronavirus pandemic, this product was actively purchased by almost all government agencies and organizations. Some State institutions procured independently, and some used a centralized method of procurement and then transferred it to all their subordinate institutions.

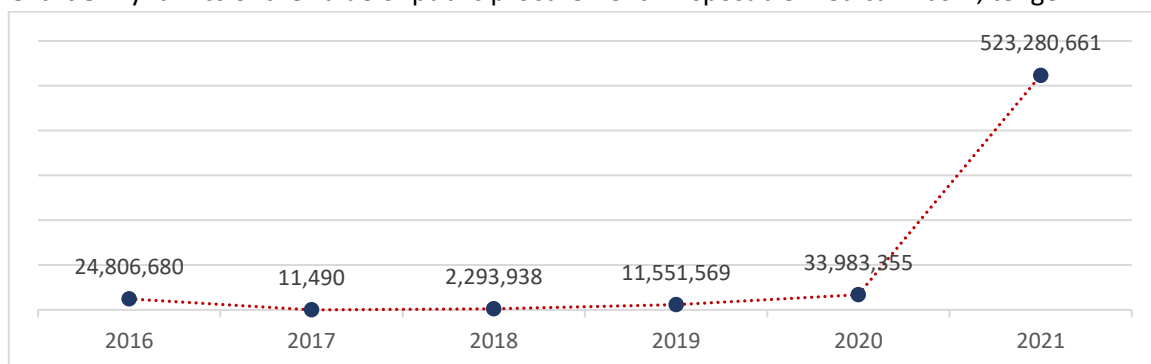
Since 2020, the demand and volume for these products has increased dramatically. If in 2016 the volume of purchases amounted to 1.4 million units, by 2021 it has grown 29 times and amounted to 40.5 million units.

Chart 7. Dynamics of the volume of public procurement “Disposable medical mask”, units



Accordingly, the state budget allocated for the implementation of public procurement of these products has increased.

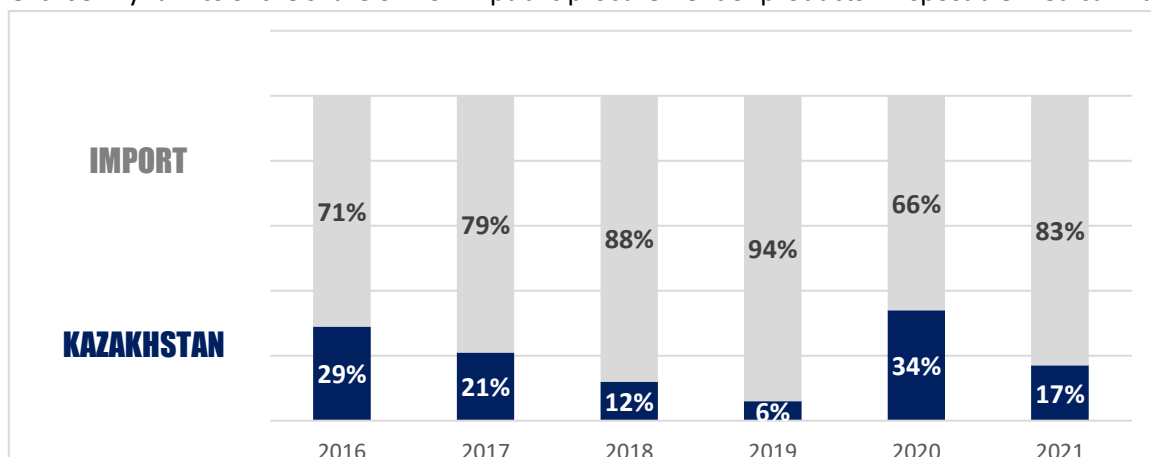
Chart 8. Dynamics of the value of public procurement “Disposable medical mask”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 11.7 billion tenge, while the purchase of imported goods amounted to 24.8 billion tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 80%, while only 20% is accounted for by DCP.

Chart 9. Dynamics of the share of DCP in public procurement of products “Disposable medical mask”.



Despite the fact that the main Customers in terms of the volume of purchased goods are medical institutions, currently each state institution or organization seeks to provide a separate item for purchasing these products within its budget.

At the same time, if in 2016 the number of Contracting authorities was 1,816 units, then in 2020 their number increased significantly and amounted to 9,500 units.

Chart 10. TOP 5 Contracting authorities with the largest volume of public procurement of Disposable medical mask products in 2021.

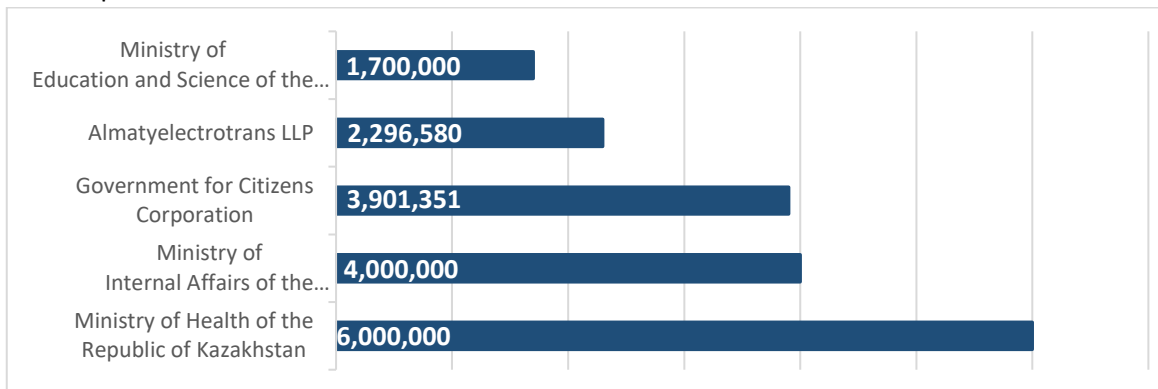
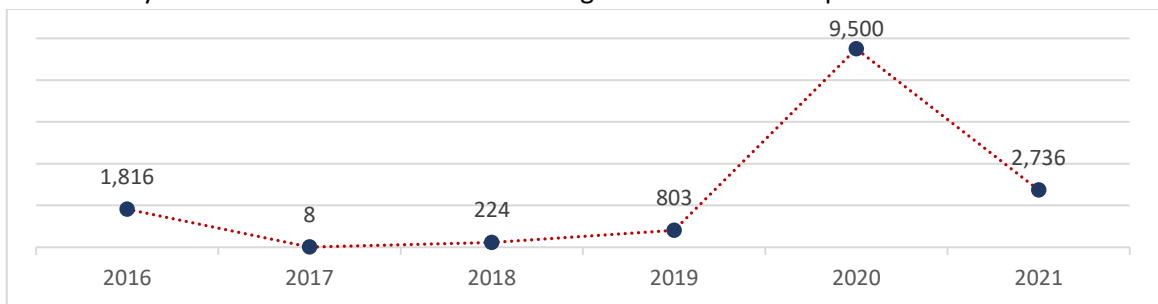


Chart 11. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Disposable medical mask” products showed that the market of manufacturers and distributors of these products is relatively developed. In 2020 there were about 2,183 Suppliers. At the same time, in 2016, there were only 472 suppliers of this type of product.

Chart 12. TOP 5 Suppliers with the largest volume of public procurement of Disposable medical mask products in 2021.

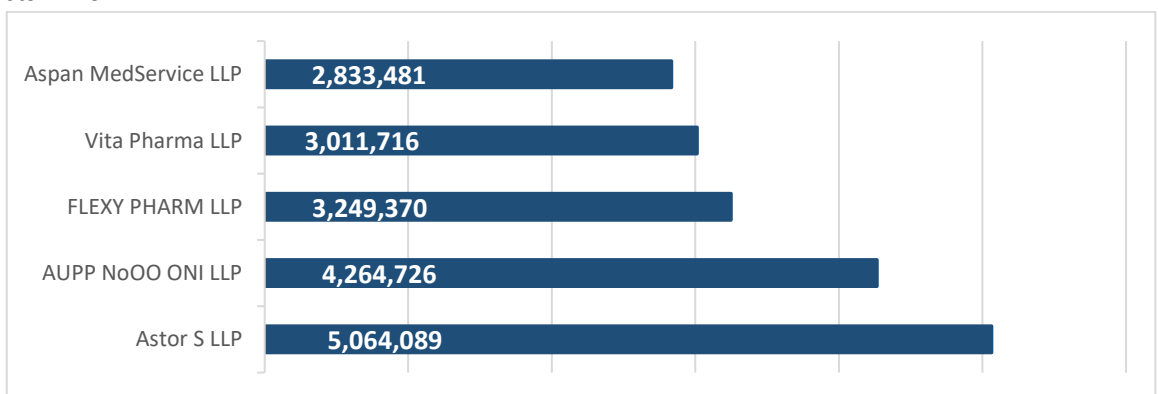
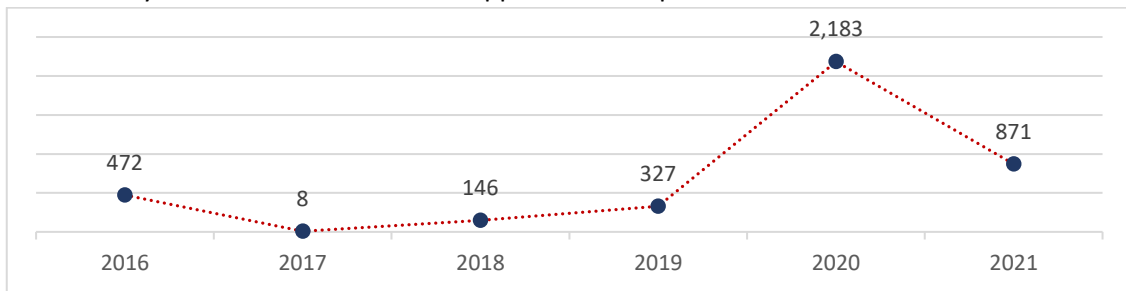
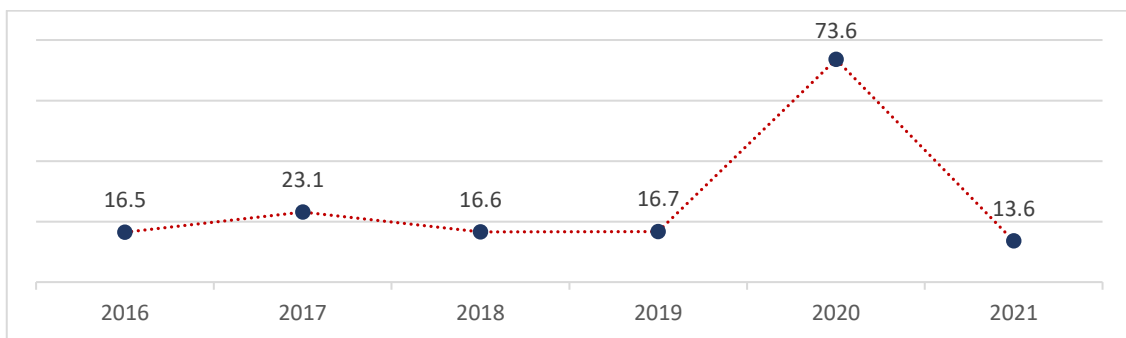


Chart 13. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of prices of Disposable medical mask products for the period from 2016 to 2021 showed relative price stability (in 2016, 2018 and 2019). However, in 2020, due to the increased demand for these products, the price has significantly increased. In this regard, the volume of production of these products has increased and as a result, the price in 2021 decreased to 13.6 tenge per unit.

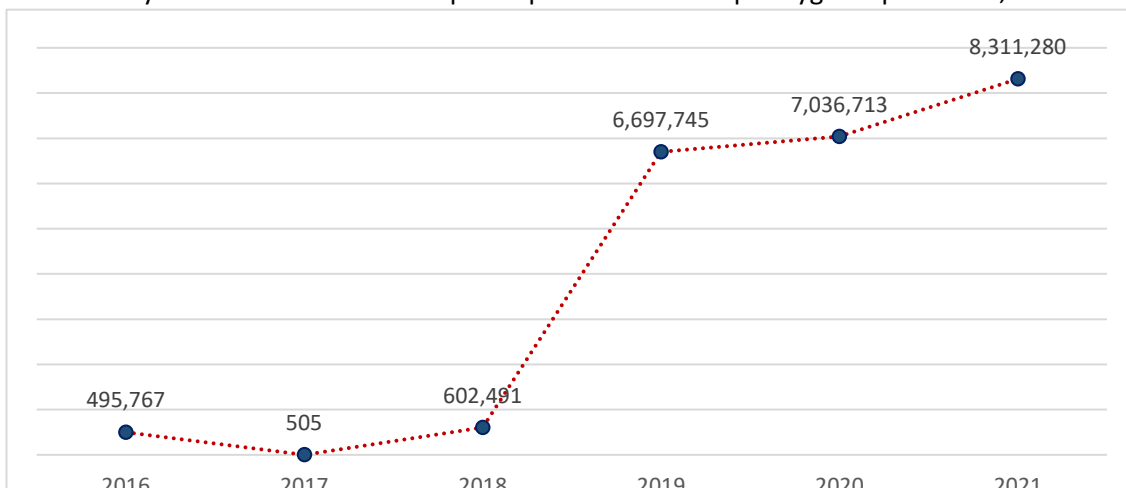
Chart 14. Dynamics of average purchased prices during public procurement of “Disposable medical mask” products for the period from 2016 to 2021, tenge.



3.2 Paper hygiene products

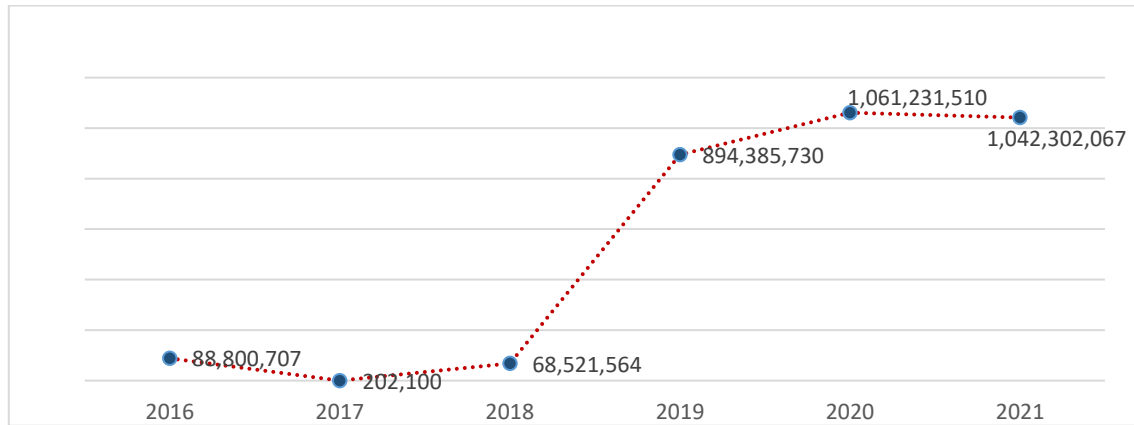
These products are purchased by almost all government agencies and organizations. Since 2018, the demand and volume for these products has increased dramatically. If in 2016 the volume of purchases amounted to 495 thousand units, by 2021 it has grown and amounted to 8.3 million units, mainly as a result of COVID-19 pandemic.

Chart 15. Dynamics of the volume of public procurement “Paper hygiene products”, units



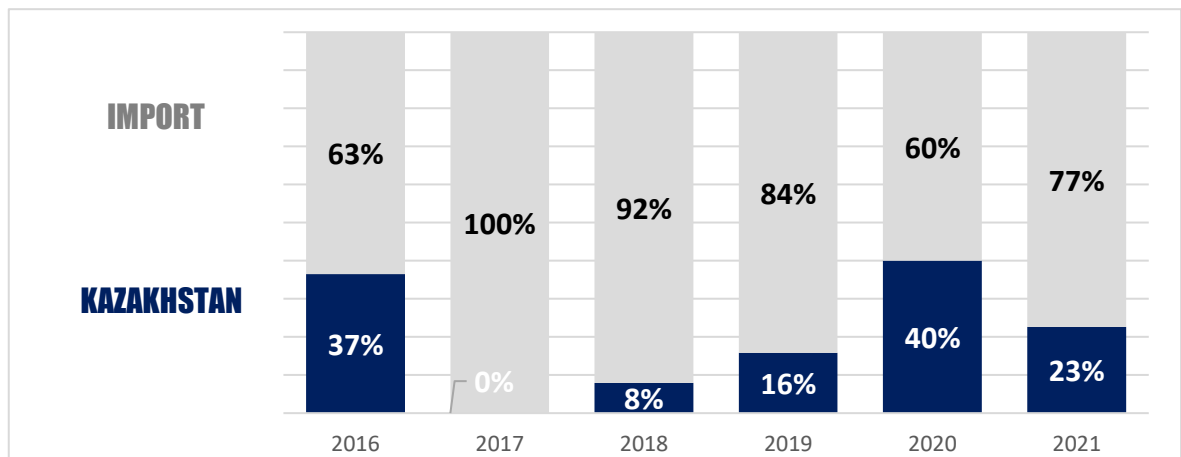
Accordingly, the state budget allocated for public procurement of these products has increased.

Chart 16. Dynamics of the value of public procurement “Paper hygiene products, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 837 million tenge, while the purchase of imported goods amounted to 2.3 billion tenge. On average, the share of imported goods purchased by the Republic of Kazakhstan is about 79%, while only 21% is accounted for by DCP.

Chart 17. Dynamics of the share of DCP in public procurement of products “Paper hygiene products”.



At the same time, if in 2016 the number of Contracting authorities was 927 units, then in 2021 their number increased significantly to 4,660 units.

Chart 18. TOP 5 Contracting authorities with the largest volume of public procurement of “Paper hygiene products” in 2021.

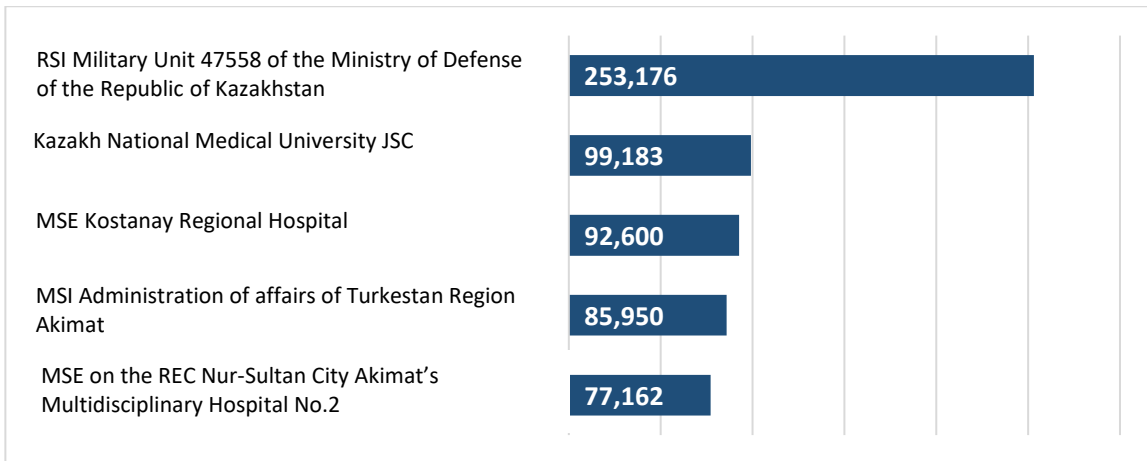
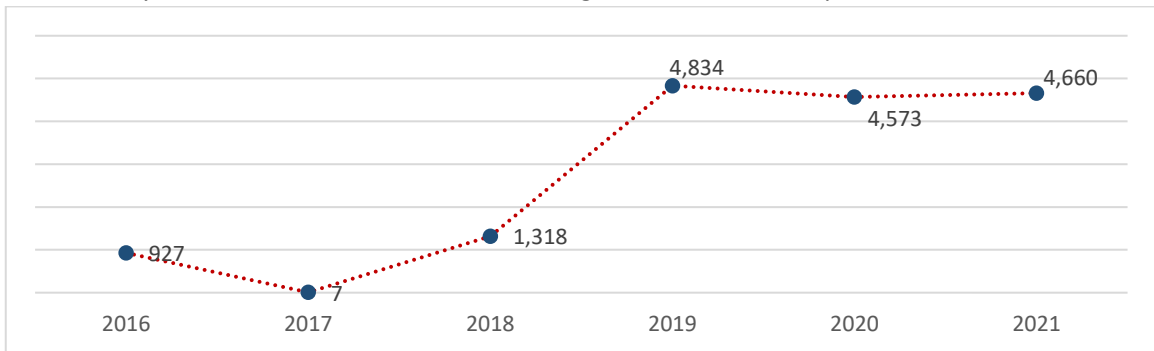


Chart 19. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Paper hygiene products” products showed that the market of manufacturers and distributors of these products is quite developed and in 2019 there were about 3,405 Suppliers. At the same time, in 2016, there were only 685 suppliers of this type of product.

Chart 20. TOP 5 Suppliers with the largest volume of public procurement of “Paper hygiene products” in 2021.

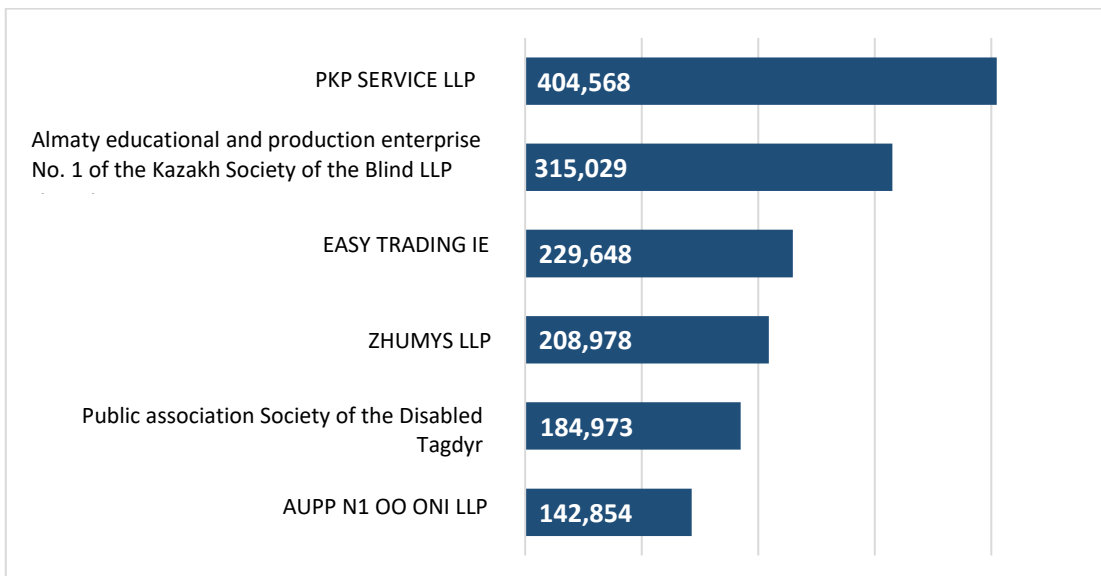
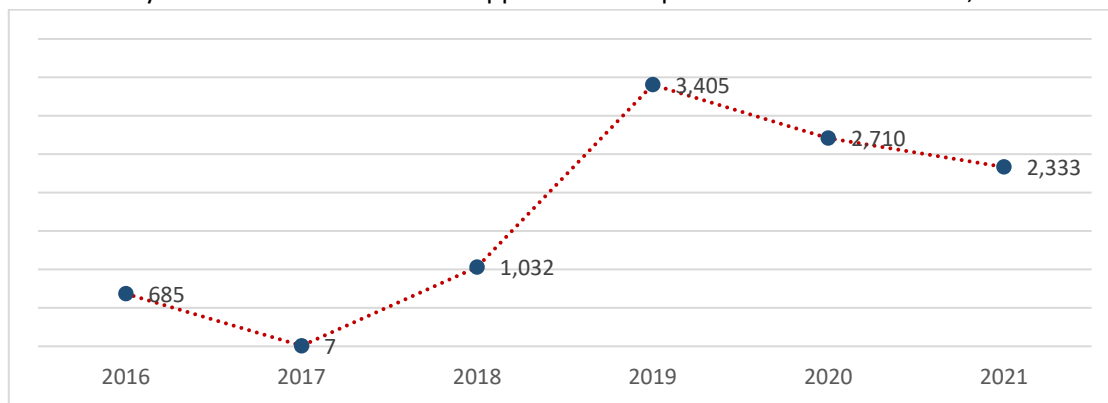
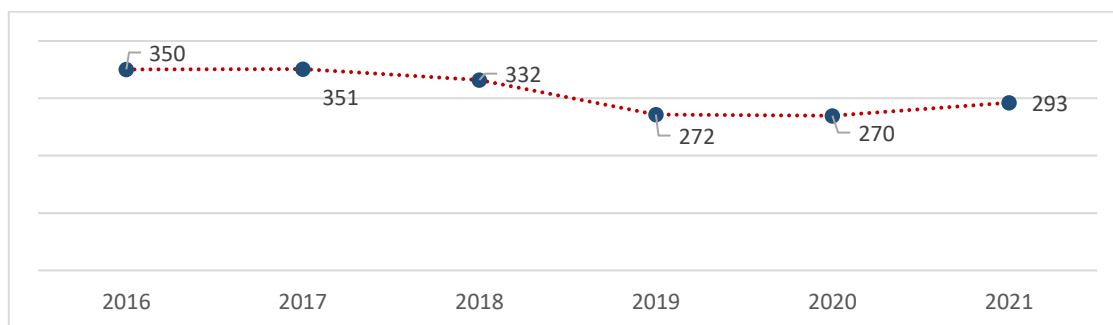


Chart 21. Dynamics of the number of Suppliers for the period from 2016 to 2021, units



The analysis of the prices of “Paper hygiene products” for the period from 2016 to 2021 showed relative price stability (in 2016, 2017 and 2018). However, in 2019, due to the increased demand for these products, the volume of production of these products increased and as a result, the price in 2020 decreased to 270 tenge per unit.

Chart 22. Dynamics of average purchased prices in public procurement of paper hygiene products for the period from 2016 to 2021, tenge



3.3 Office supplies

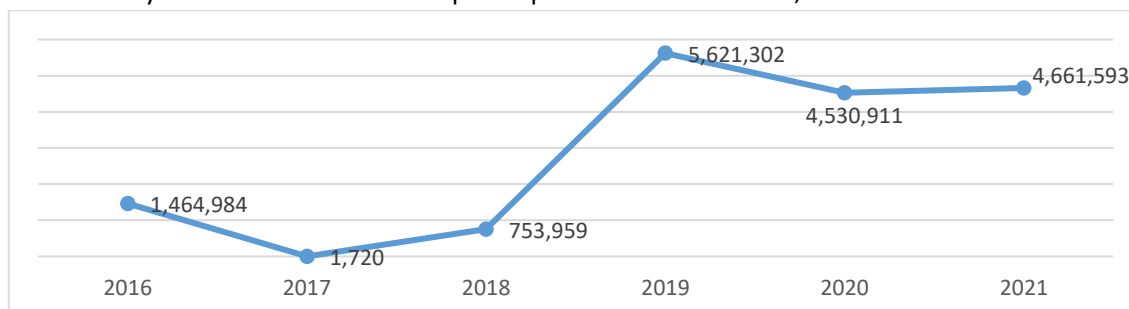
3.3.1. A4 cardboard folder

This product is purchased by almost all government agencies and organizations.

Since 2019, the demand and volume for these products have increased dramatically. If in 2016 the volume of purchases amounted to 71.5 million tenge, by 2021 it increased 4 times and amounted to 306.8 million tenge.

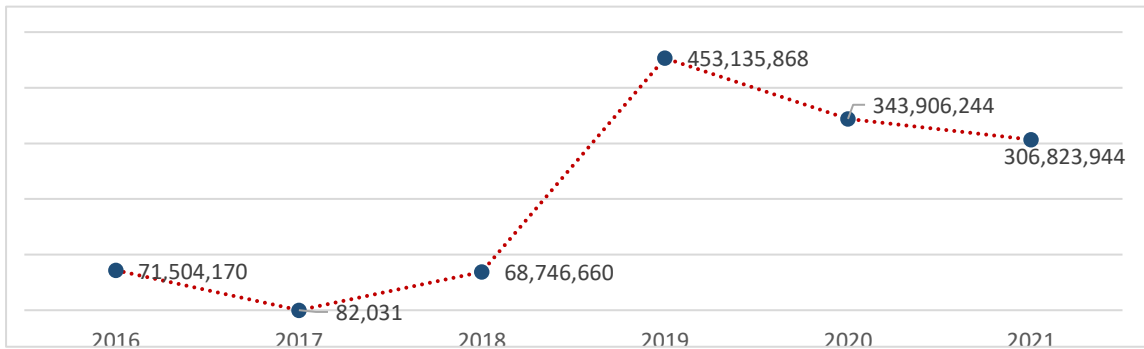
The increase in the demand for these products is due to the periodic (once every four years) need for archiving documents in the state bodies.

Chart 23. Dynamics of the volume of public procurement “Folder”, units



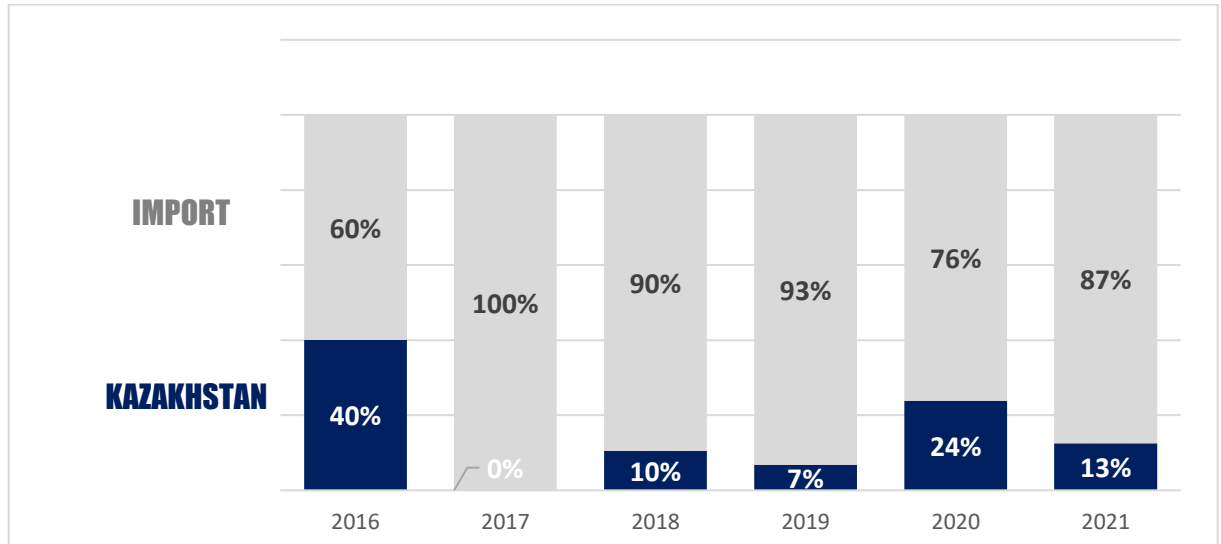
Accordingly, the state budget allocated for public procurement of these products has increased.

Chart 24. Dynamics of the value of public procurement “Folder”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 183.4 million tenge, while the purchase of imported goods amounted to 1,060 million tenge. On average, the share of imported goods purchased by the Republic of Kazakhstan is about 84%, while only 16% is accounted for by DCP.

Chart 25. Dynamics of the share of DCP in public procurement of product “Folder”.



To date, each state institution or organization seeks to provide in its budget a separate item for the purchase of these products.

At the same time, if in 2016 the number of Contracting authorities was 3,724 units, then in 2019 their number increased significantly and amounted to 10,235 units.

Chart 26. TOP 5 Contracting authorities with the largest volume of public procurement of products “Folder” in 2021.

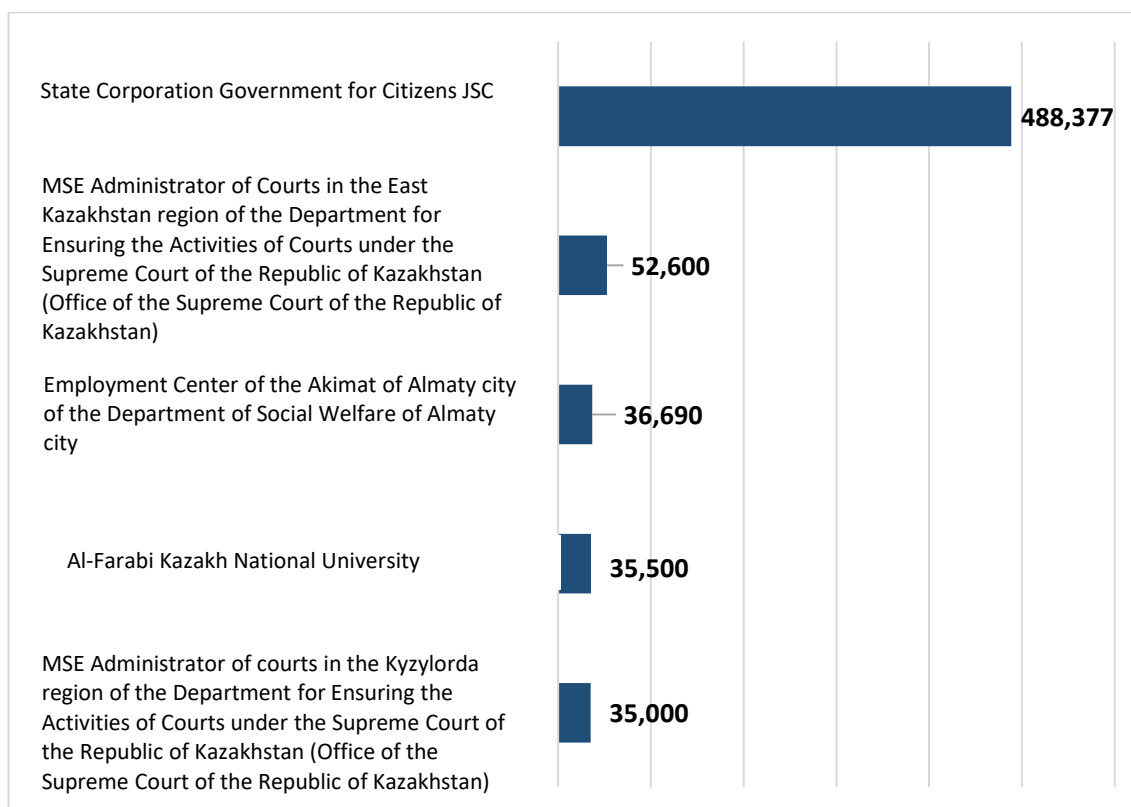
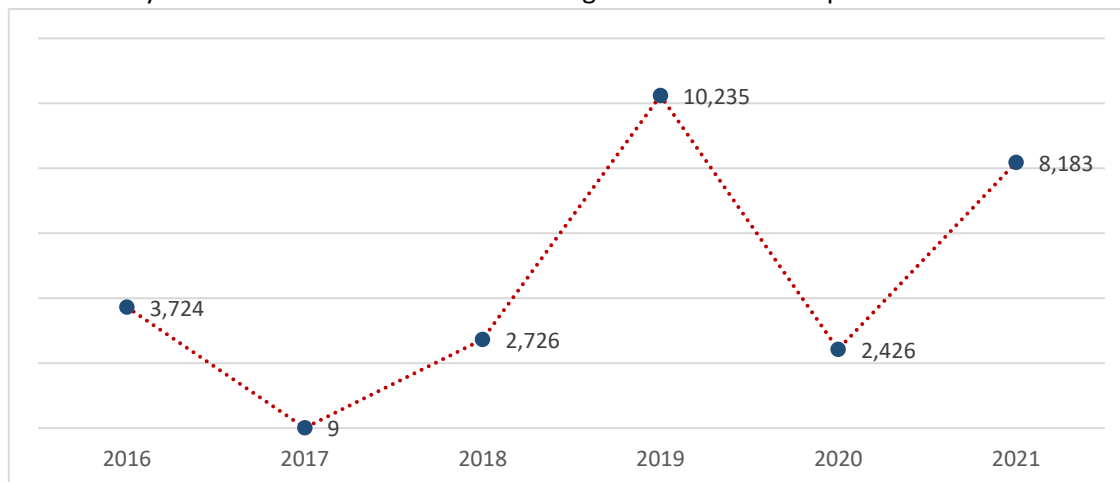


Chart 27. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of the Suppliers of the “Folder” products showed that the market of manufacturers and distributors of these products is quite developed and in 2021 there were about 3,795 Suppliers. At the same time, in 2016, there were 1,672 suppliers of this type of product.

Chart 28. TOP 5 Suppliers with the largest volume of public procurement of product “Folder” in 2021.

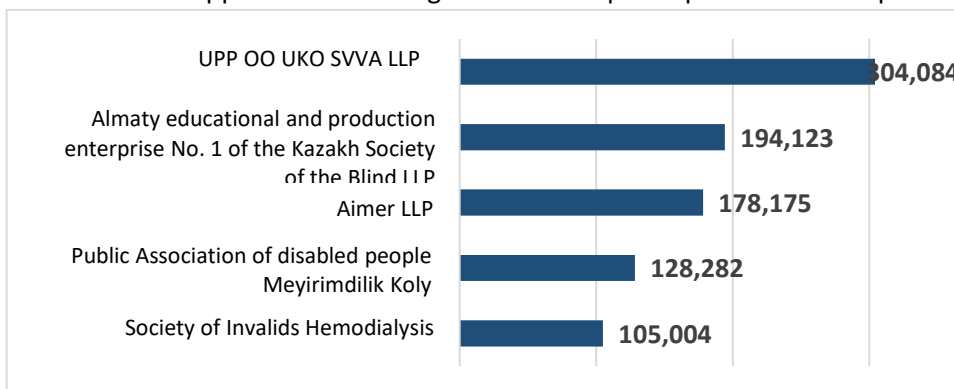
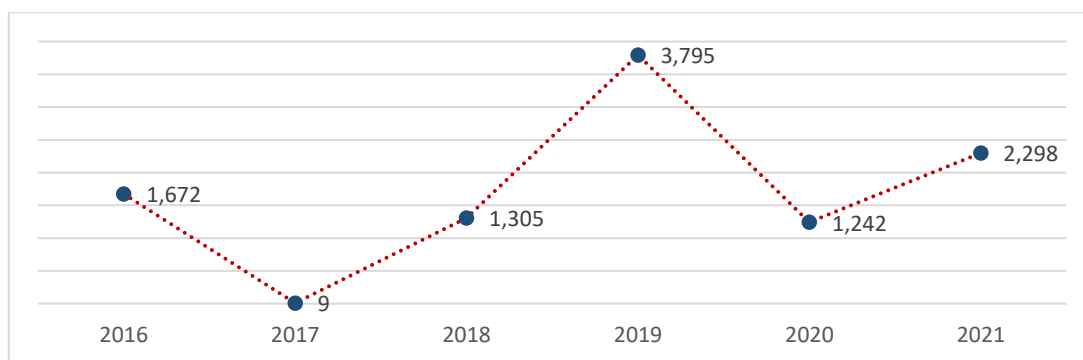
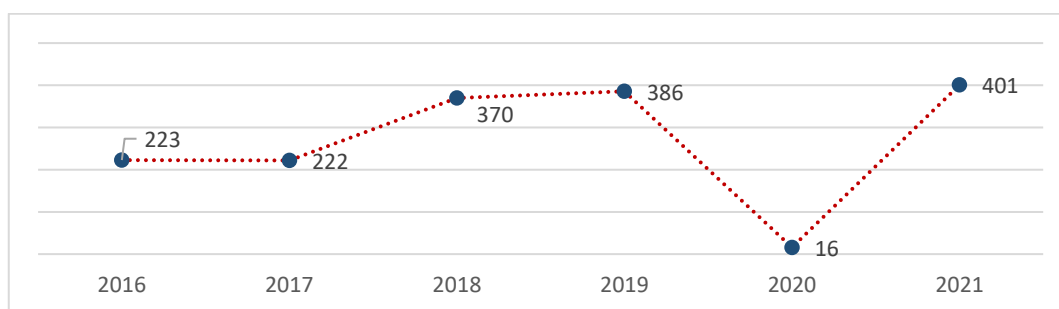


Chart 29. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of the Folder products for the period from 2016 to 2021 showed relative price stability (in 2016 and 2017). However, in 2018, due to the increased demand for these products, the price has significantly increased. In this regard, the volume of production of these products has increased and as a result, the price in 2020 decreased to 16 tenge per unit.

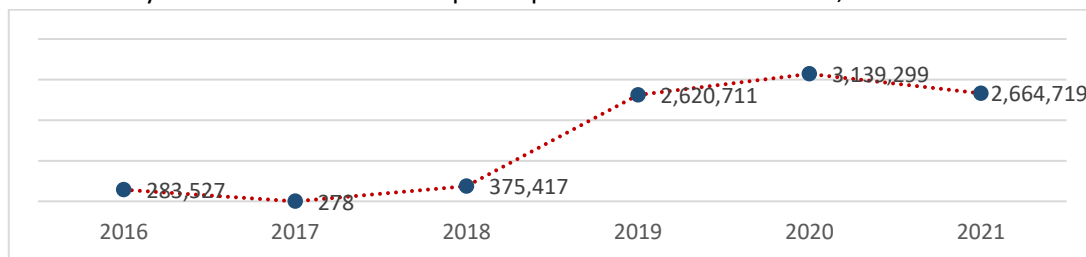
Chart 30. Dynamics of average purchased prices in public procurement of product “Folder” for the period from 2016 to 2021.



3.3.1. Notebook

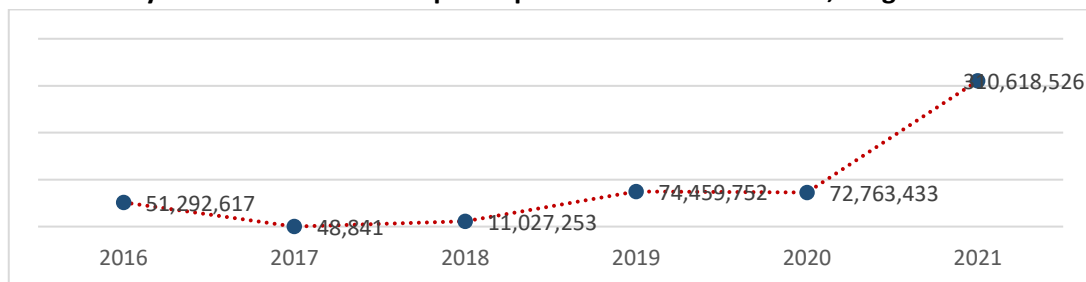
Since 2019, the demand and volume for these products has increased dramatically. If in 2016 the volume of purchases amounted to 51 million tenge, by 2021 it increased 6 times and amounted to 310.6 million tenge.

Chart 31. Dynamics of the volume of public procurement “Notebook”, units



Accordingly, the state budget allocated for public procurement of these products has increased.

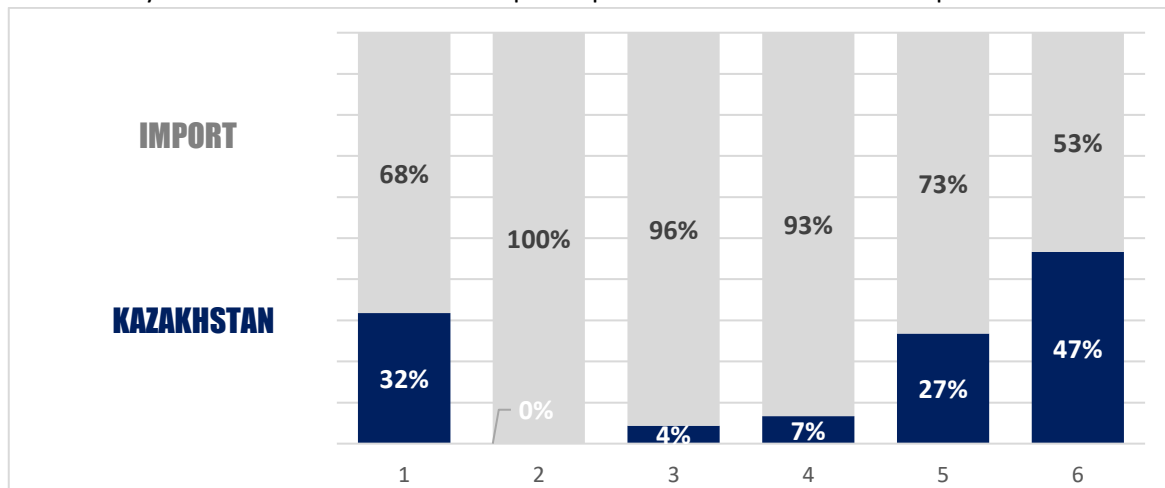
Chart 32. Dynamics of the value of public procurement “Notebook”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 186 million tenge, while the purchase of imported goods amounted to 334 million tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 81%, while only 19% is accounted for by DCP.

Chart 33. Dynamics of the share of DCP in public procurement of “Notebook” products.



At the same time, if in 2016 the number of Contracting authorities was 2,792 units, then in 2018 their number increased significantly and amounted to 3,291 units.

Chart 34. TOP 5 Contracting authorities with the largest volume of public procurement of “Notebook” product in 2021.

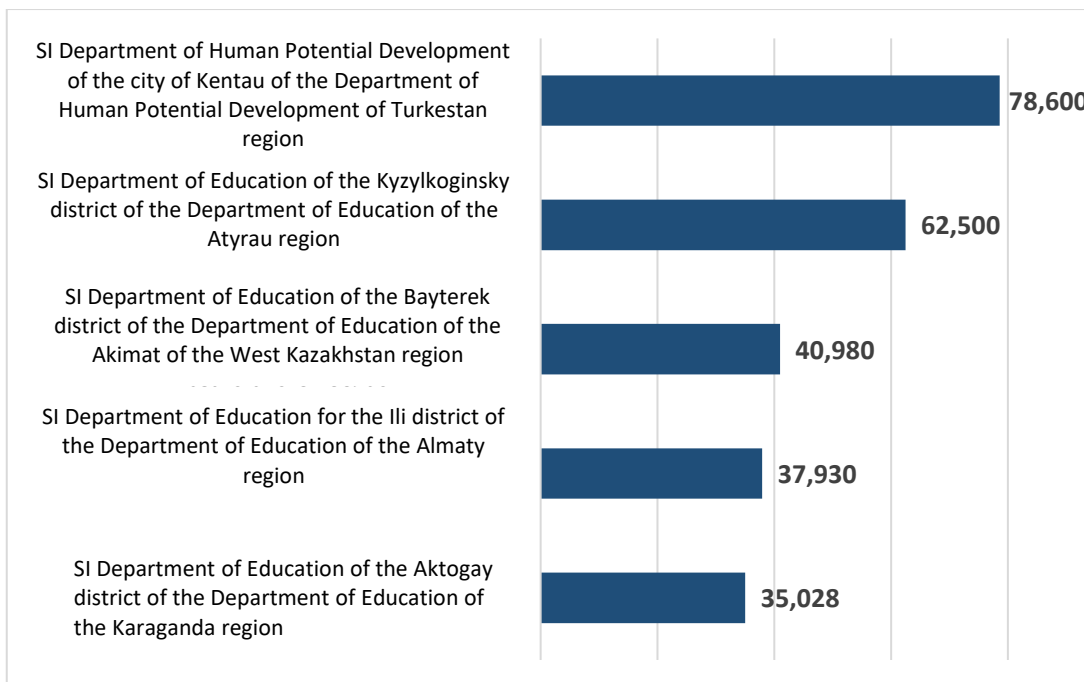
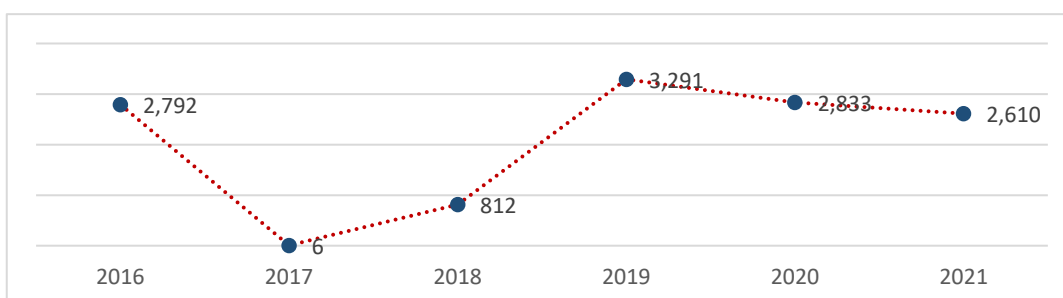


Chart 35. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Notebook” product showed that the market of manufacturers and distributors of these products is quite developed and in 2019 there were about 1,601 Suppliers. At the same time, in 2017 there were only 7 Suppliers of this type of product.

Chart 36. TOP 5 Suppliers with the largest volume of public procurement of “Notebook” product in 2021.

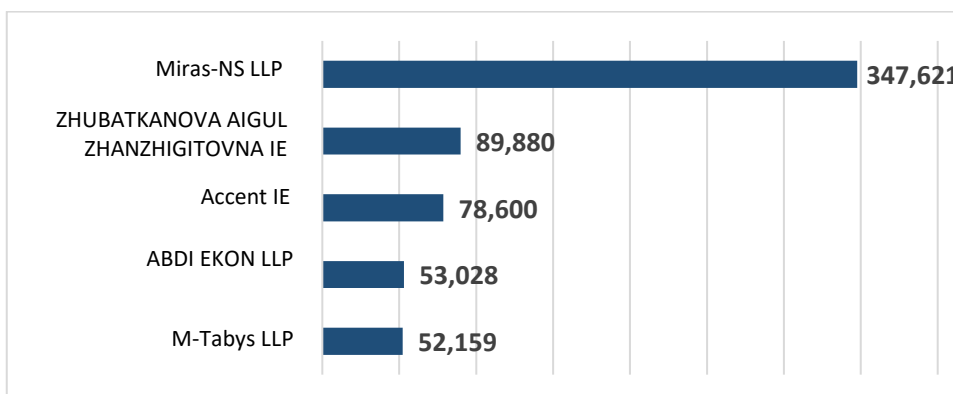
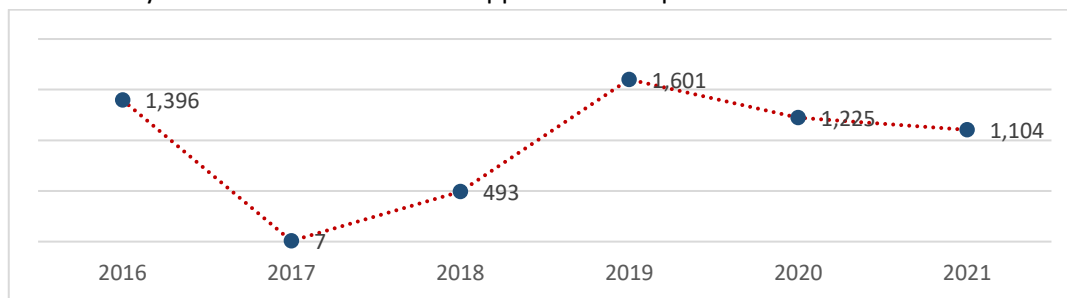
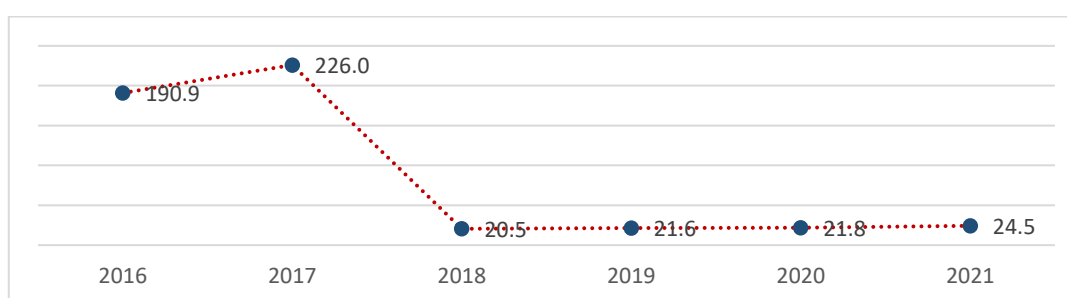


Chart 37. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The conducted analysis of the prices of “Notebook” products showed relative price stability in 2018-2021. At the same time, the highest peak of prices occurred in 2017.

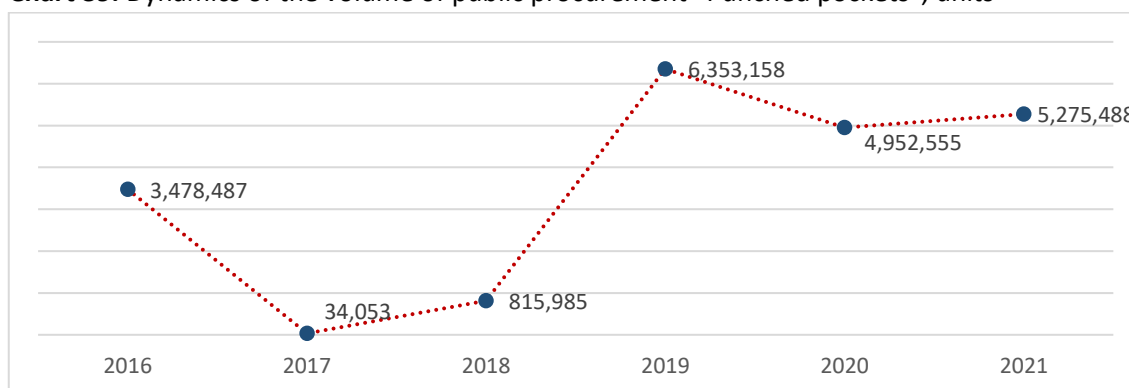
Chart 38. Dynamics of average purchased prices during public procurement of “Notebook” products for the period from 2016 to 2021, tenge



3.4 Punched Pockets

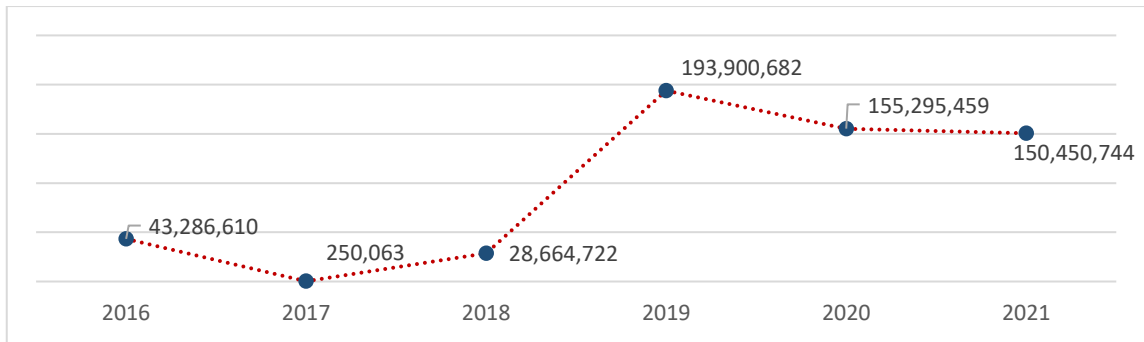
These products are purchased by almost all government agencies and organizations. Since 2019, the demand and volume for these products have increased dramatically. If in 2016 the volume of purchases amounted to 43.3 million tenge, by 2021 it increased 3.5 times and amounted to 150.5 million tenge.

Chart 39. Dynamics of the volume of public procurement “Punched pockets”, units



Accordingly, the state budget allocated for public procurement of these products has increased.

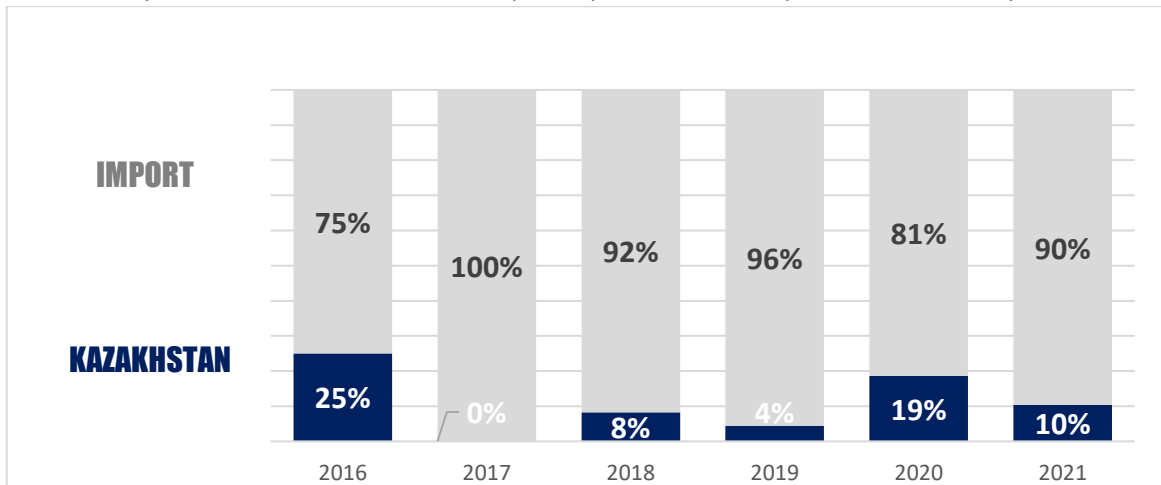
Chart 40. Dynamics of the value of public procurement “Punched pockets”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 65 million tenge, while the purchase of imported goods amounted to 507 million tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 89%, while only 11% is accounted for by DCP.

Chart 41. Dynamics of the share of DCP in public procurement of product “Punched pockets”.



To date, each state institution or organization seeks to provide in its budget a separate item for the purchase of these products.

At the same time, if in 2016 the number of Contracting authorities was 3,094 units, then in 2020 their number increased significantly and amounted to 4,706 units.

Chart 42. TOP 5 Contracting authorities with the largest volume of public procurement of “Punched pockets” products in 2021.

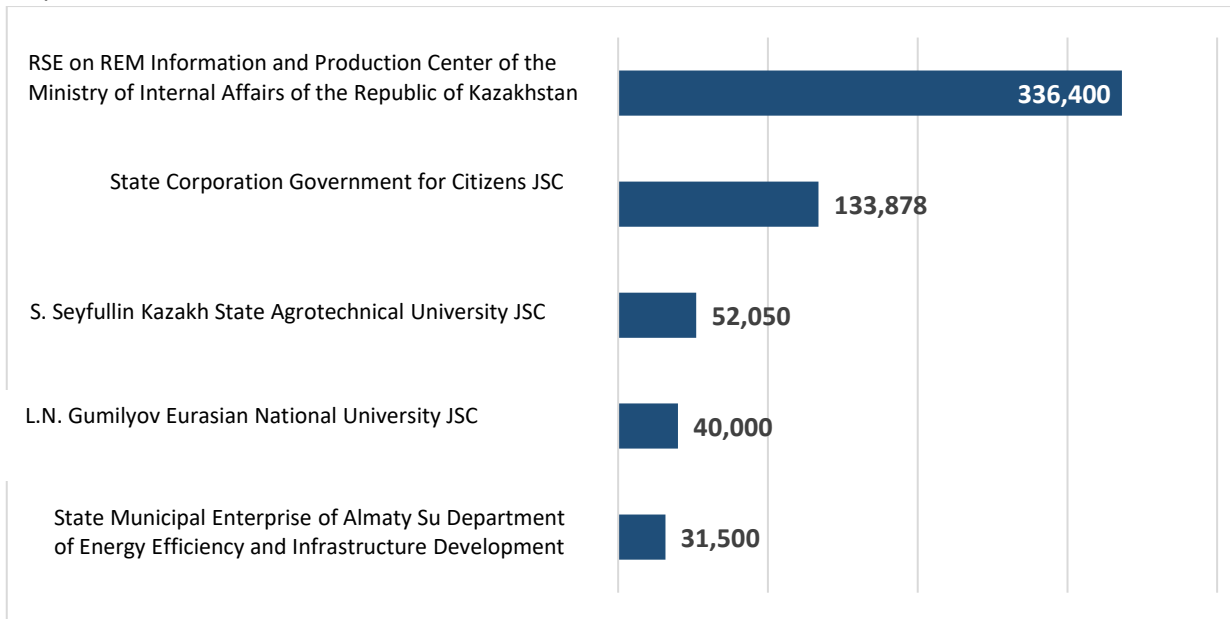
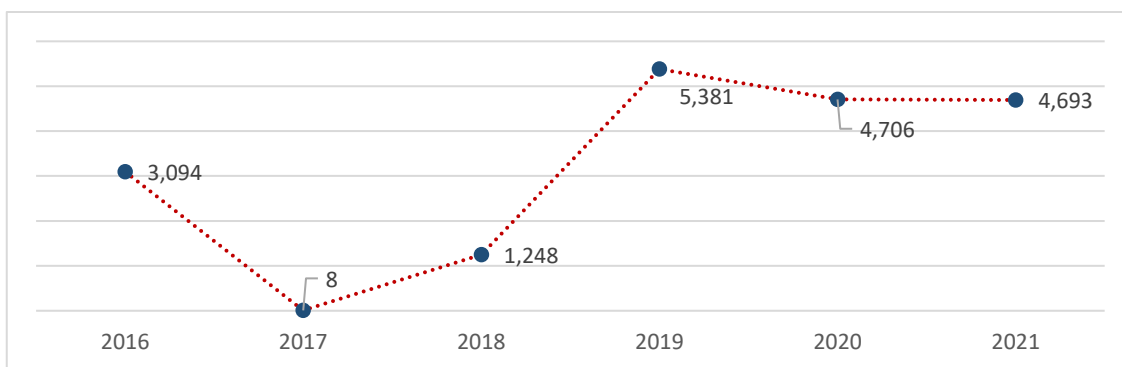


Chart 43. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Punched pockets” products showed that the market of manufacturers and distributors of these products is relatively developed and in 2019 there were about 2,489 Suppliers. At the same time, in 2016, there were 1,366 Suppliers of this type of product.

Chart 44. TOP 5 Suppliers with the largest volume of public procurement of “Punched pockets” product in 2021.

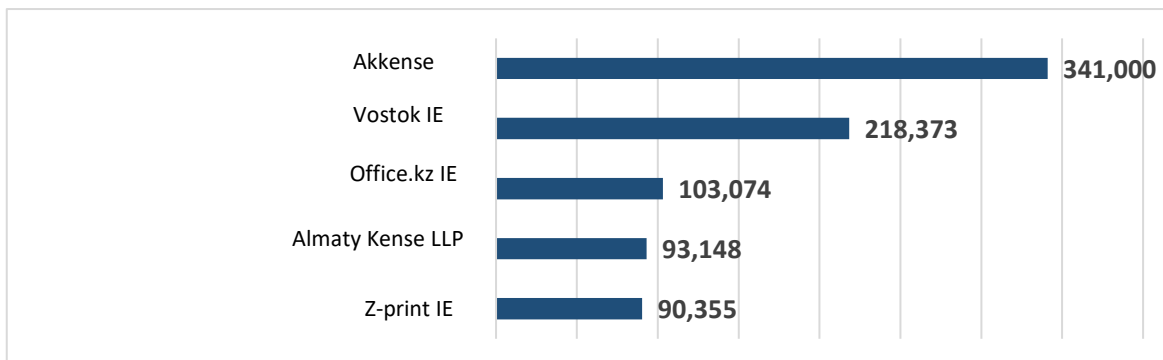
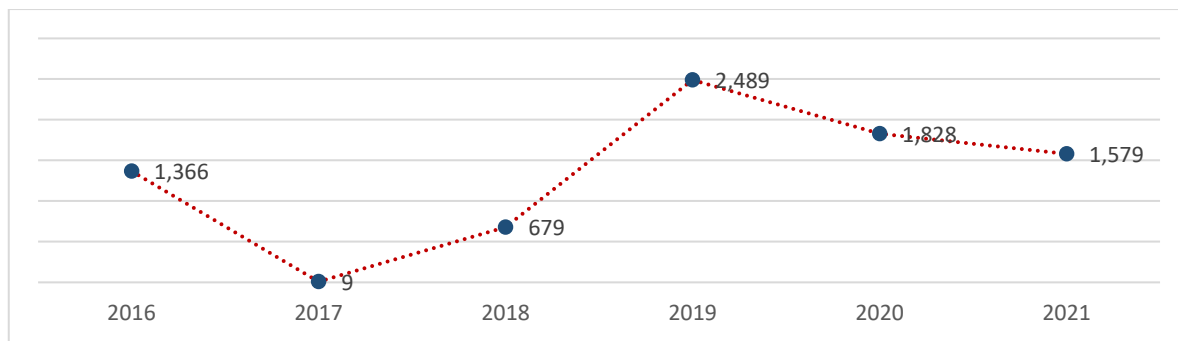
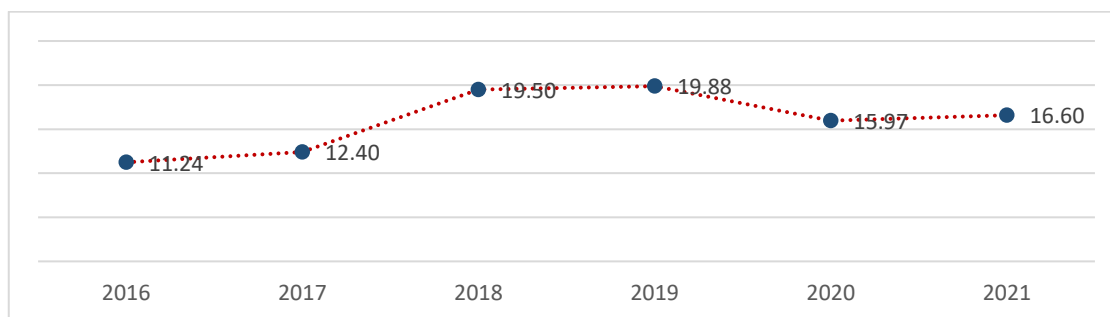


Chart 45. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of the "Punched pockets" products for the period from 2016 to 2021 showed relative price stability (in 2016 and 2017). In subsequent 2018-2019, the average price was 19.6 tenge. At the same time, in 2021 it decreased to 16.6 tenge per unit.

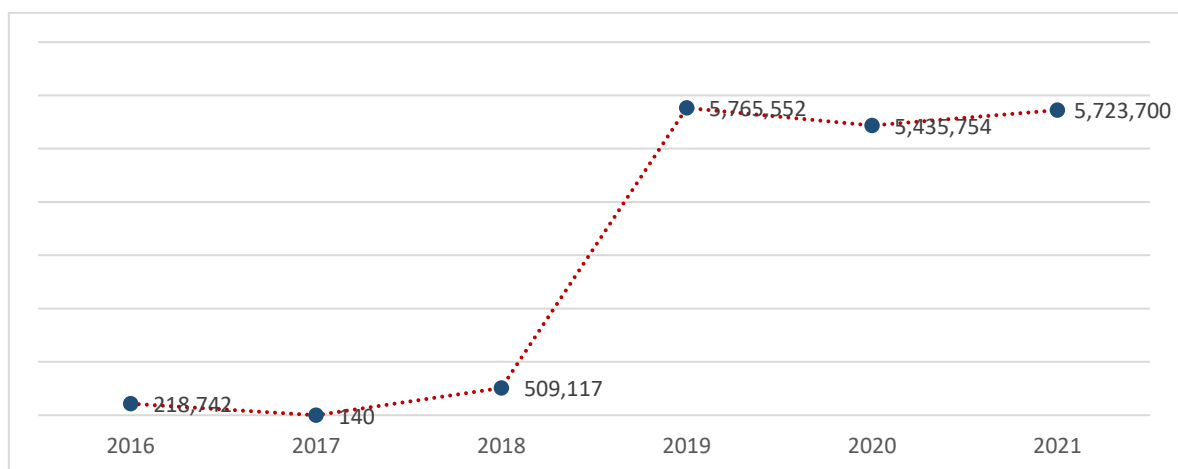
Chart 46. Dynamics of average purchased prices during public procurement of "Punched pockets" product for the period from 2016 to 2021, tenge



3.5 Soap

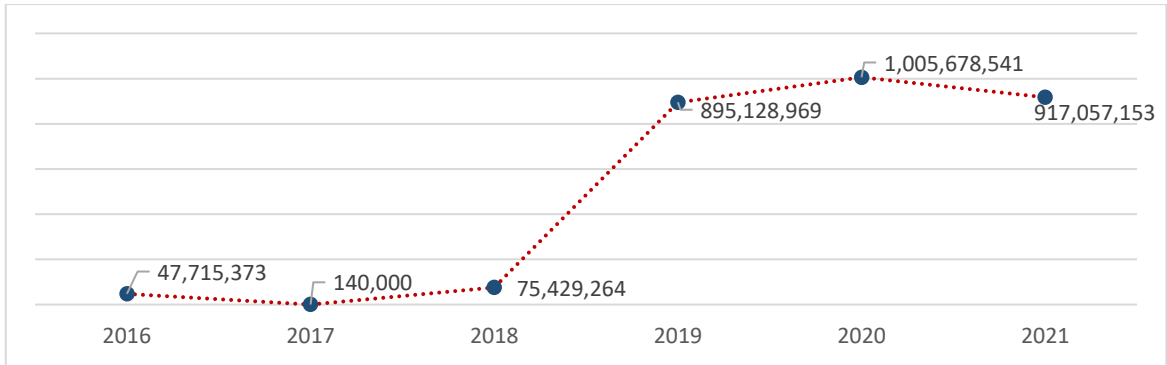
Since 2019, the demand and volume for these products has increased dramatically. If in 2016 the volume of purchases amounted to 47.7 million tenge, by 2021 it increased 19 times and amounted to 917 million tenge.

Chart 47. Dynamics of the volume of public procurement "Soap", units



Accordingly, the state budget allocated for public procurement of these products has increased.

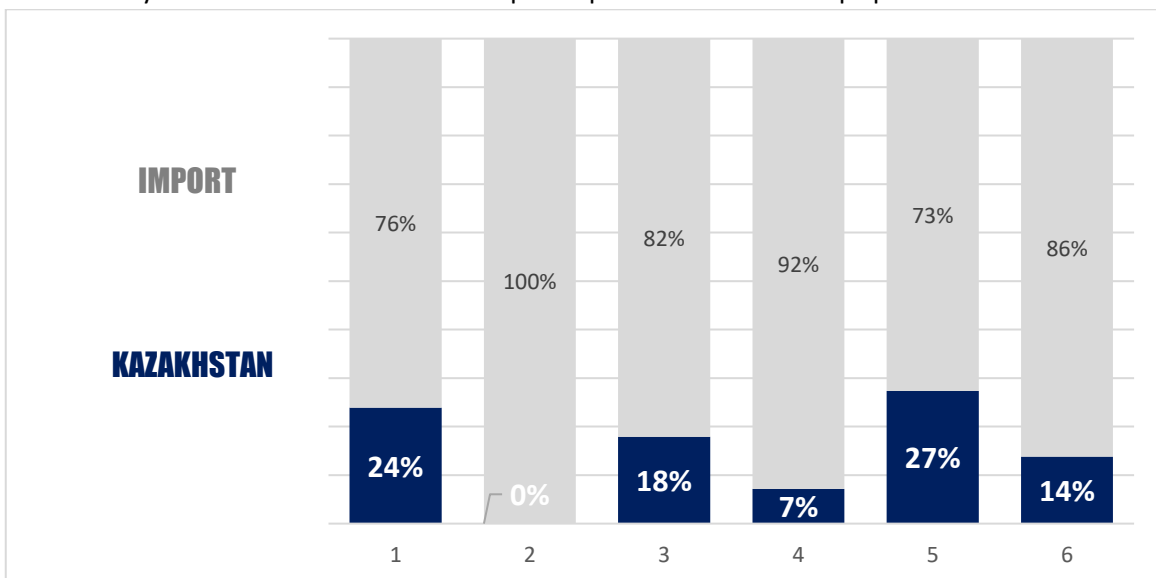
Chart 48. Dynamics of the amount of public procurement “Soap”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 483 million tenge, while the purchase of imported goods amounted to 2.5 billion tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 85%, while only 15% is accounted for by DCP.

Chart 49. Dynamics of the share of DCP in public procurement of “Soap” product.



To date, each state institution or organization seeks to provide in its budget a separate item for the purchase of these products.

At the same time, if in 2016 the number of Contracting authorities was 138 units, then in 2020 their number increased significantly and amounted to 6,141 units.

Chart 50. TOP 5 Contracting authorities with the largest volume of public procurement of “Soap” product in 2021.

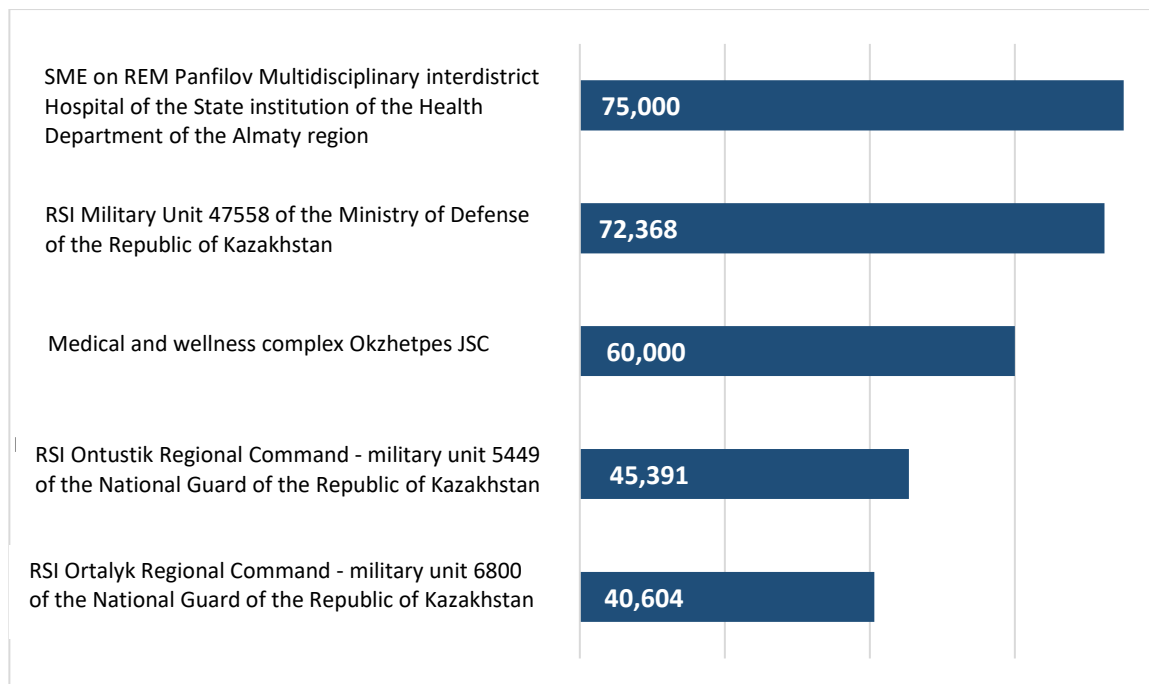
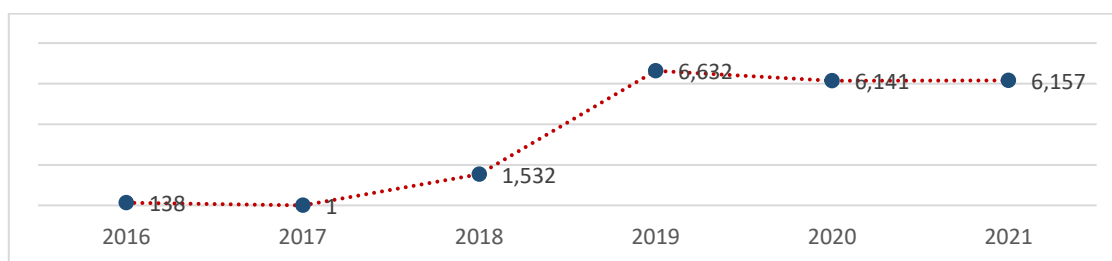


Chart 51. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Soap” products showed that the market of manufacturers and distributors of these products is quite developed and in 2020 there were about 3,116 Suppliers. At the same time, in 2016 there were only 119 suppliers of this type of product.

Chart 52. TOP 5 Suppliers with the largest volume of public procurement of “Soap” product in 2021.

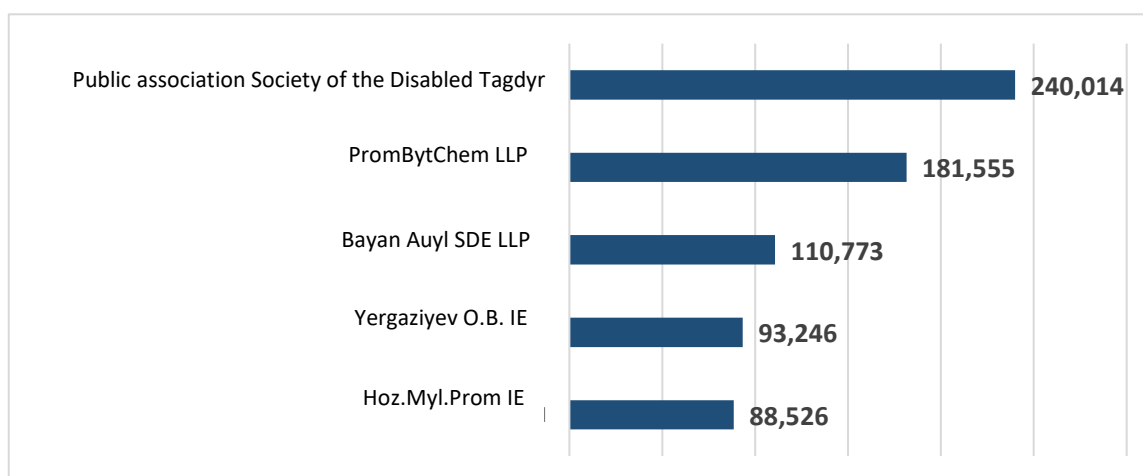
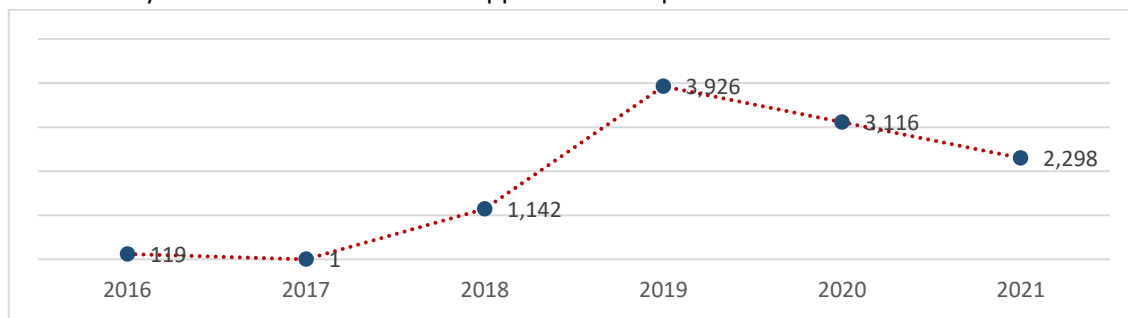
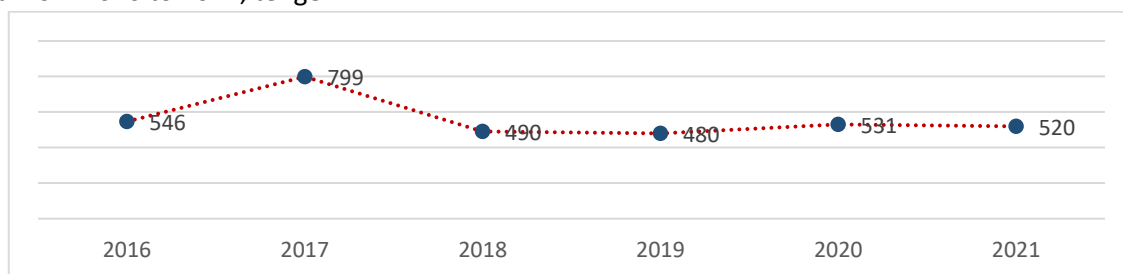


Chart 53. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of “Soap” products for the period from 2016 to 2021 showed relative price stability. If in 2016 the average cost was 546 tenge, then in 2021 the average cost decreased by 26 tenge and amounted to 520 tenge per unit.

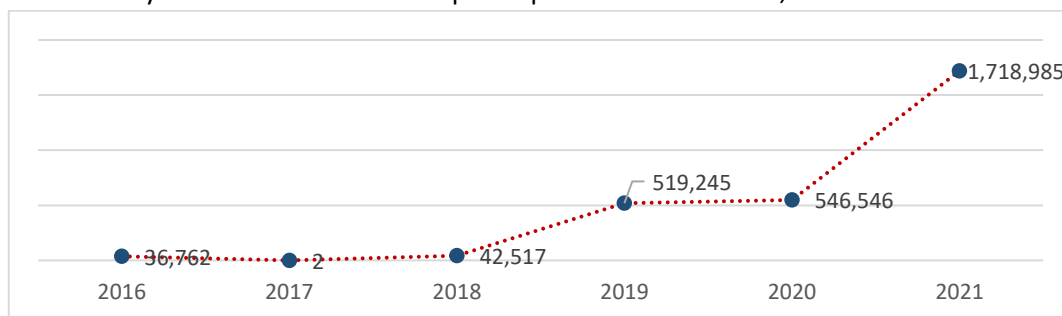
Chart 54. Dynamics of average purchased prices during public procurement of Soap products for the period from 2016 to 2021, tenge



3.6 Paint

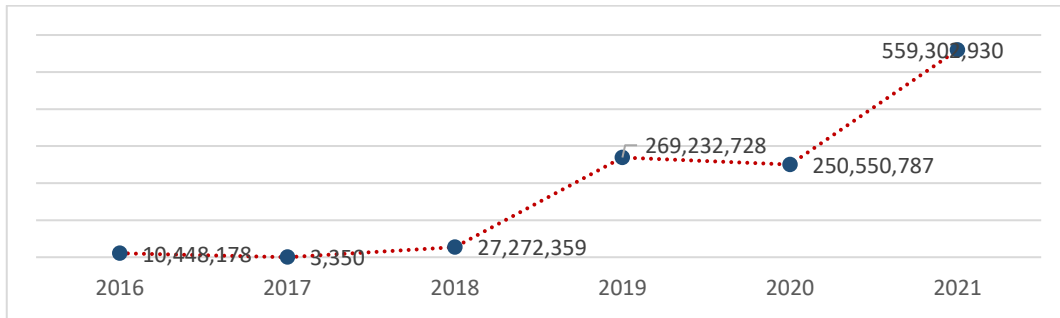
In 2021, the demand and volume for these products increased dramatically. If in 2016 the volume of purchases amounted to 10 million tenge, by 2021 it increased 53 times and amounted to 559 million tenge.

Chart 55. Dynamics of the volume of public procurement “Paint”, units



Accordingly, the state budget allocated for public procurement of these products has increased.

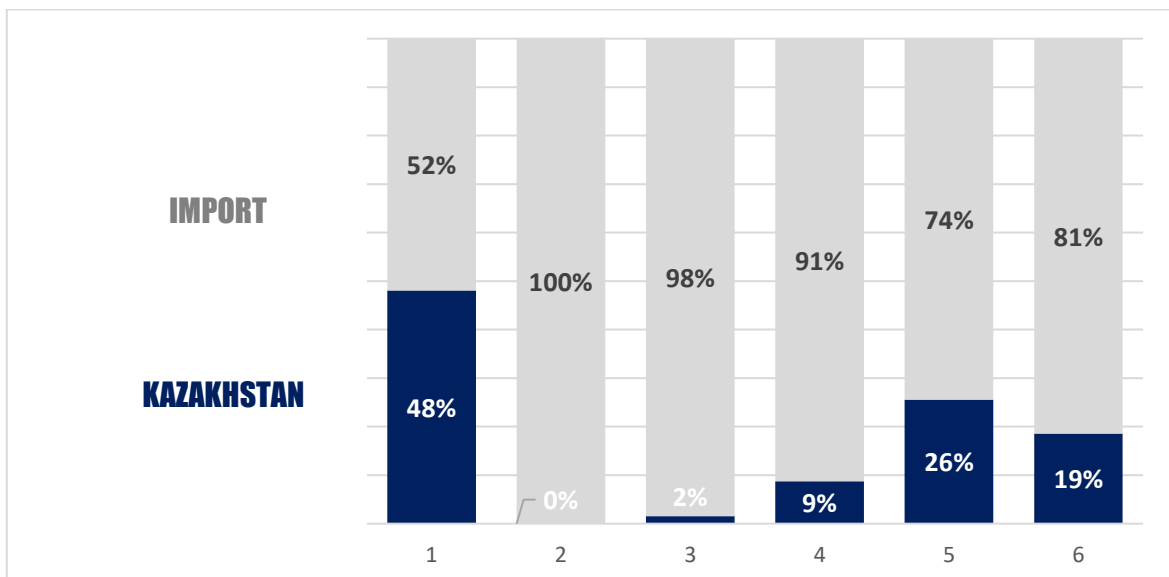
Chart 56. Dynamics of the value of public procurement “Paint”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 196.7 million tenge, while the purchase of imported goods amounted to 920 million tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 83%, while only 17% is accounted for by DCP.

Chart 57. Dynamics of the share of DCP in public procurement of “Paint” product.



If in 2016 the number of Contracting authorities was 172 units, then in 2021 their number increased significantly and amounted to 3,134 units.

Chart 58. TOP 5 Contracting authorities with the largest volume of public procurement of “Paint” product in 2021.

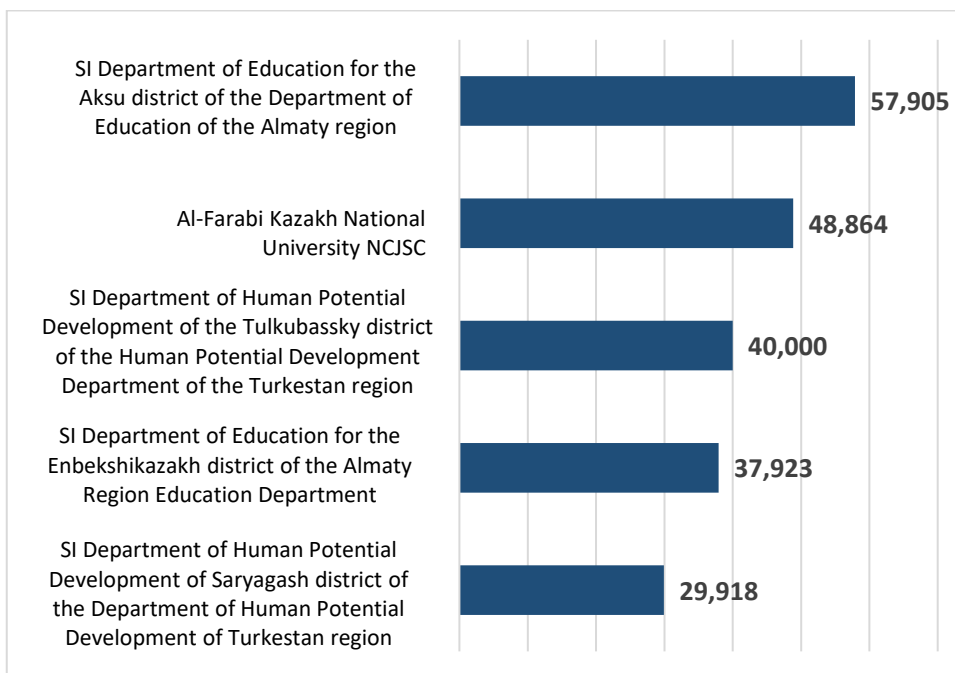
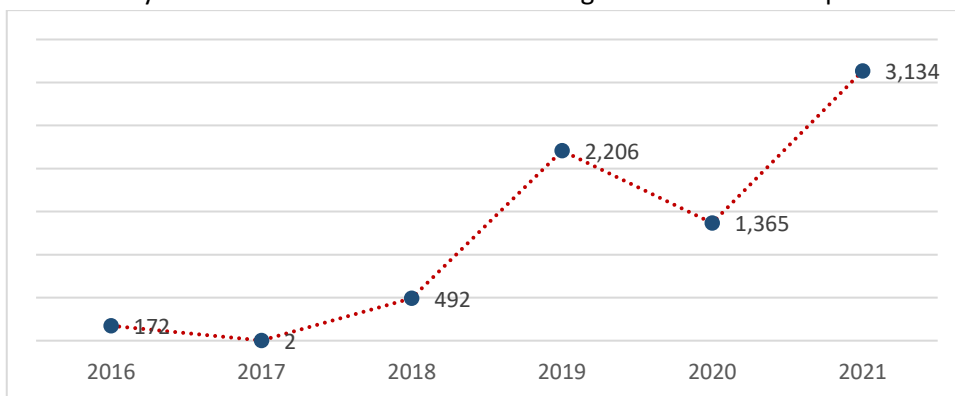


Chart 59. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Paint” products showed that the market of manufacturers and distributors of these products is quite developed and in 2021 there were about 1,530 Suppliers. At the same time, in 2016 there were only 170 Suppliers of this type of product.

Chart 60. TOP 5 Suppliers with the largest volume of public procurement of “Paint” products in 2021.

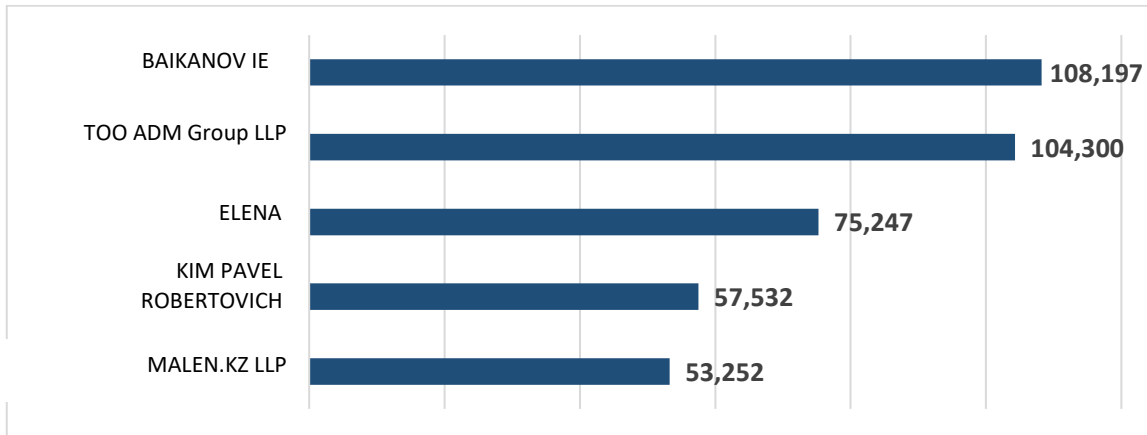
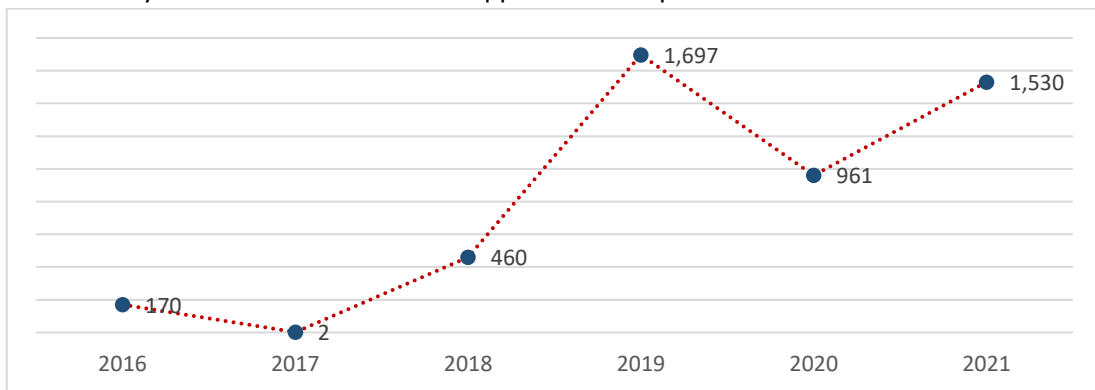
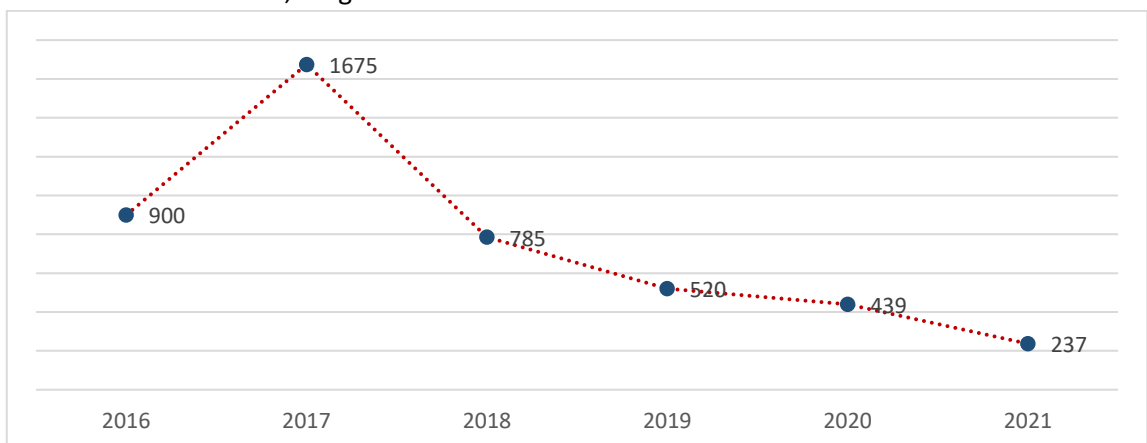


Chart 61. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of “Paint” products for the period from 2016 to 2021 showed a sharp increase in prices in 2017 due to low demand. However, since 2018, due to the increased demand for these products, the volume of production has increased and as a result, the price in 2021 decreased to 237 tenge per unit.

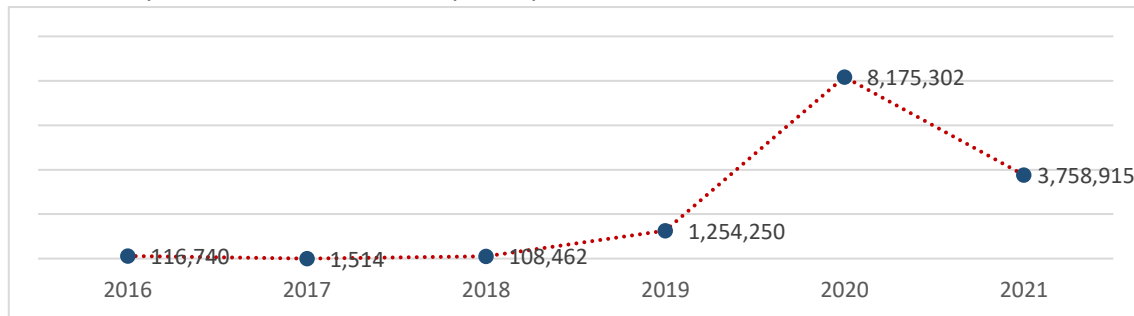
Chart 62. Dynamics of average purchased prices during public procurement of “Paint” products for the period from 2016 to 2021, tenge



3.7 Disinfectants based on alcohol and chlorine

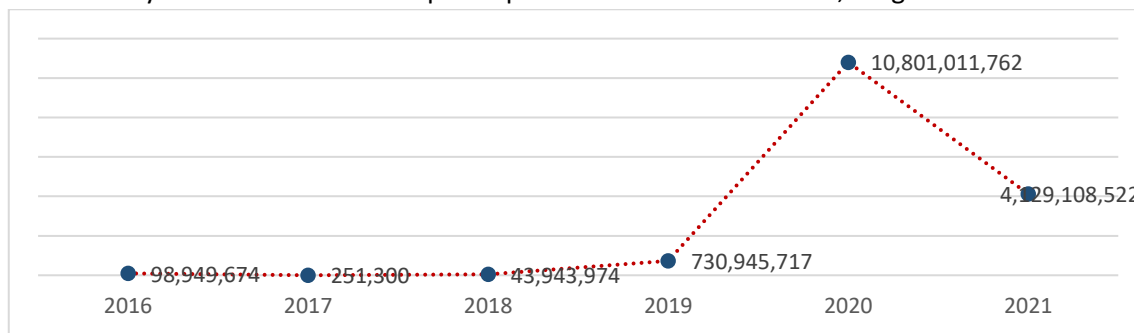
Since 2020, the demand and volume for these products have increased dramatically. If in 2016 the volume of purchases amounted to 99 million tenge, by 2021 it increased 41 times and amounted to 4,129 million tenge.

Chart 63. Dynamics of the volume of public procurement of “Disinfectant”, units



Accordingly, the state budget allocated for public procurement of these products has increased.

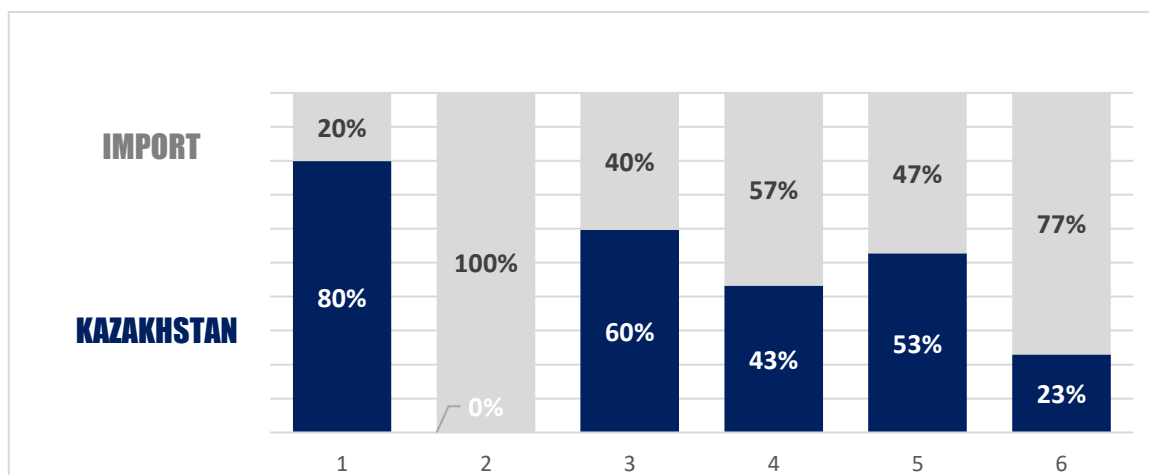
Chart 64. Dynamics of the value of public procurement “Disinfectant”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 7 billion tenge, while the purchase of imported goods amounted to 8.7 billion tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 57%, while only 43% is accounted for by DCP.

Chart 65. Dynamics of the share of DCP in public procurement of product “Disinfectant”.



At the same time, if in 2016 the number of Contracting authorities was 439 units, then in 2020 their number increased significantly and amounted to 3,862 units.

Chart 66. TOP 5 Contracting authorities with the largest volume of public procurement of “Disinfectant” product in 2021.

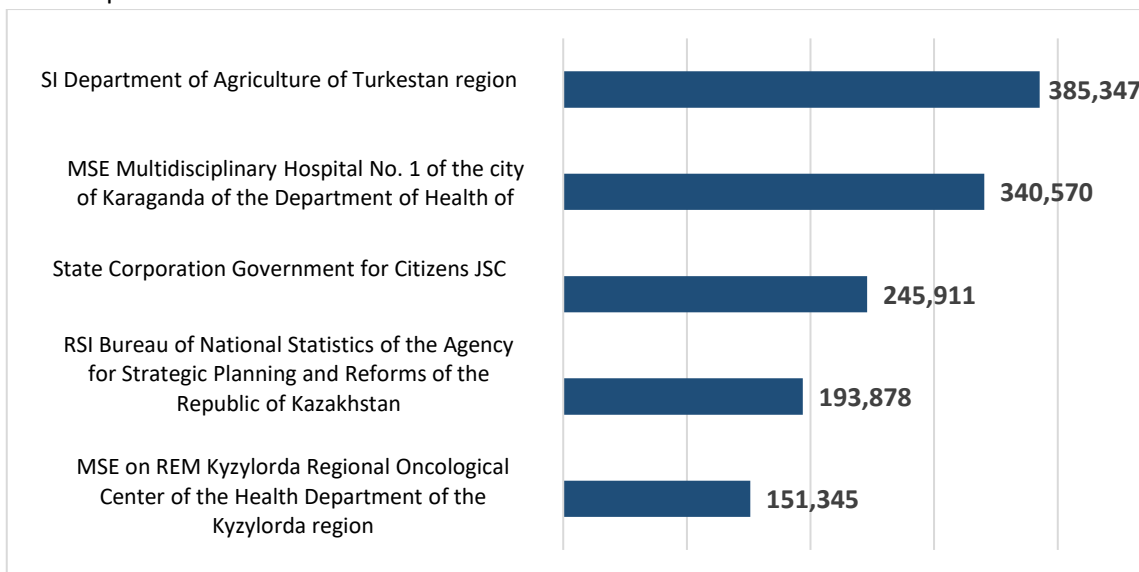
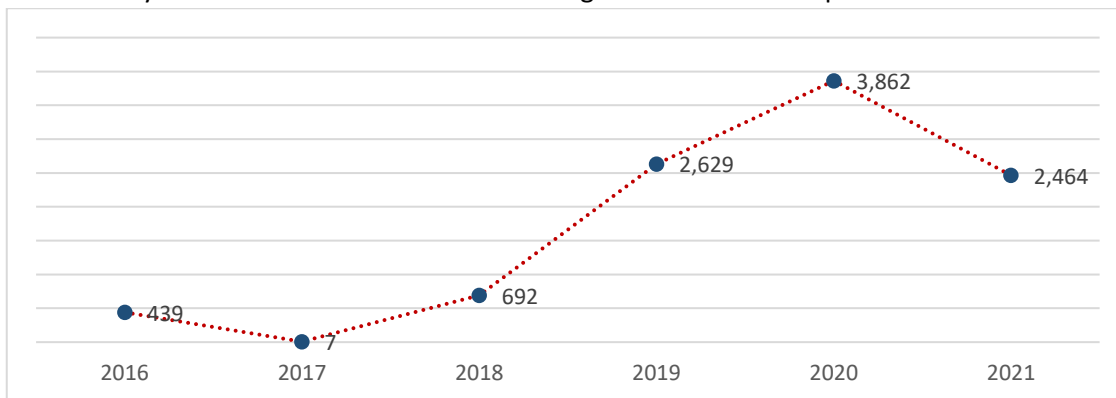


Chart 67. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of the Suppliers of the “Disinfectant” product showed that the market of manufacturers and distributors of these products is quite developed and in 2020 there were about 2,394 Suppliers. At the same time, in 2017 there were only 7 suppliers of this type of product.

Chart 68. TOP 5 Suppliers with the largest volume of public procurement of “Disinfectant” product in 2021.

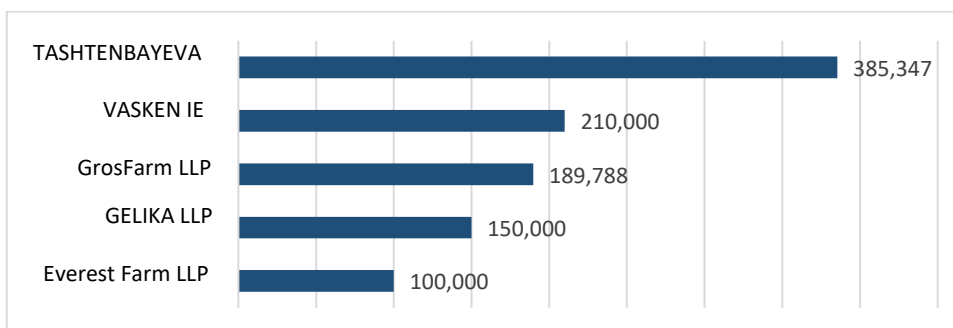
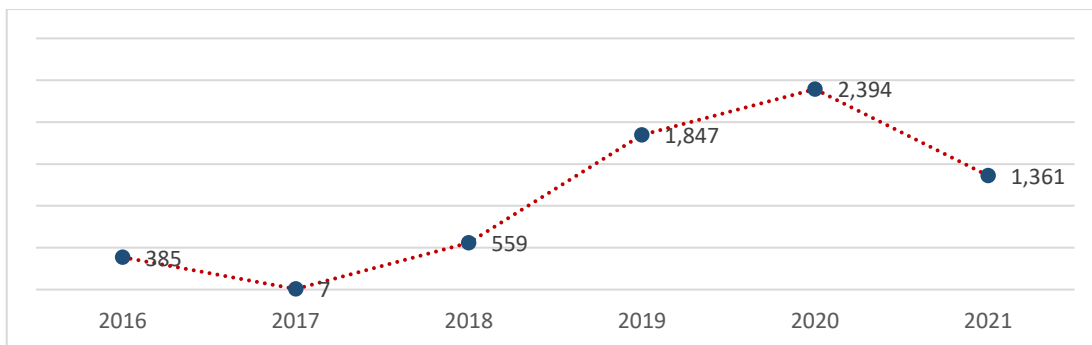
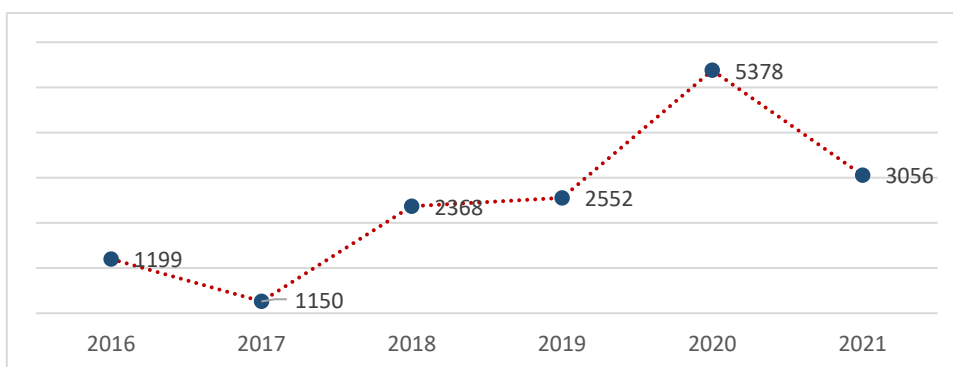


Chart 69. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of the “Disinfectant” product for the period from 2016 to 2021 showed that due to the coronavirus pandemic, the cost of products has increased dramatically. However, in 2021, the volume of production of these products increased and as a result, the price in 2021 decreased to 3056 tenge per unit.

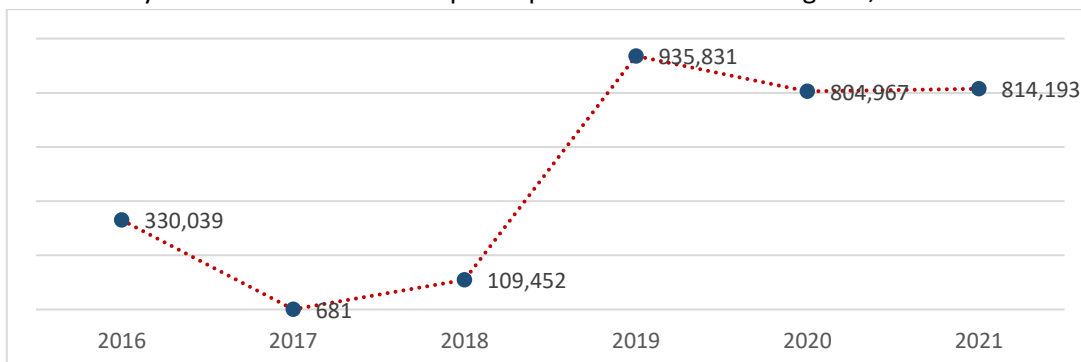
Chart 70. Dynamics of average purchased prices during public procurement of “Disinfectant” products for the period from 2016 to 2021, tenge



3.8 Detergents

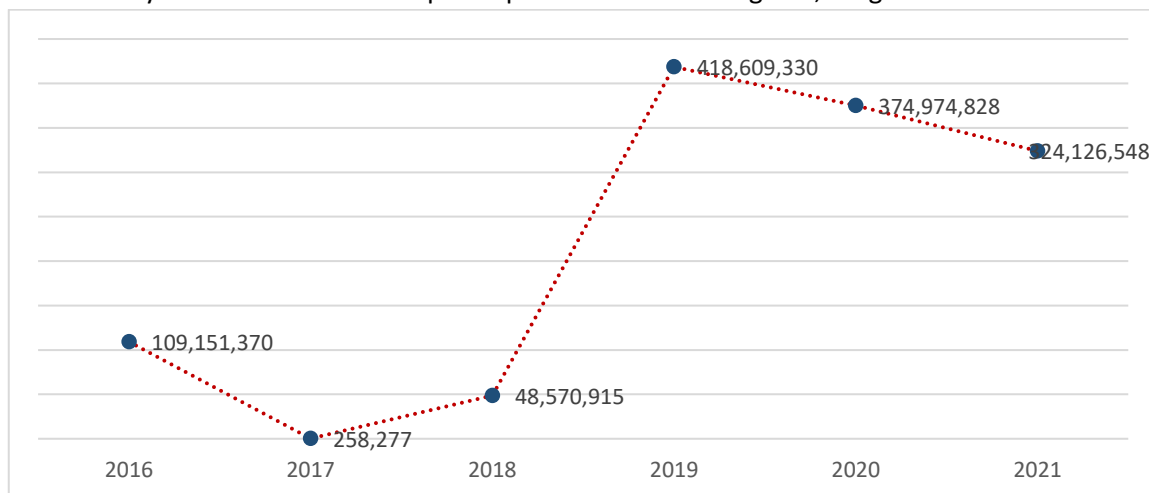
Since 2019, the demand and volume for these products have increased dramatically. If in 2016 the volume of purchases amounted to 109 million tenge, by 2021 it has grown 3 times and amounted to 324 million tenge.

Chart 71. Dynamics of the volume of public procurement of “Detergent”, units



Accordingly, the state budget allocated for public procurement of these products has increased.

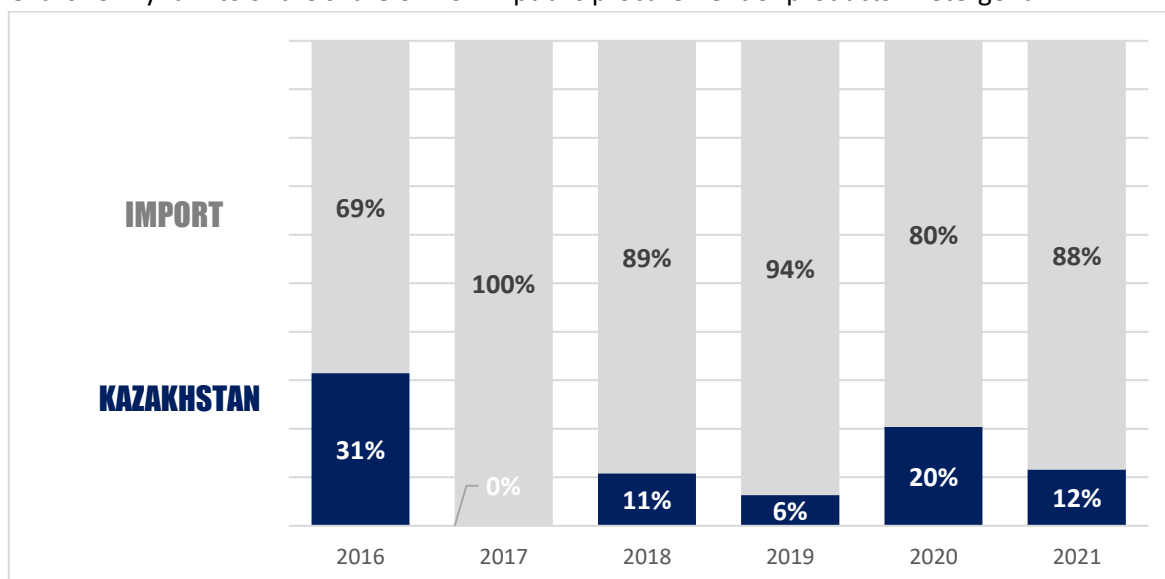
Chart 72. Dynamics of the value of public procurement “Detergent”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 177 million tenge, while the purchase of imported goods amounted to 1 billion tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 87%, while only 13% is accounted for by DCP.

Chart 73. Dynamics of the share of DCP in public procurement of products “Detergent”.



To date, each state institution or organization seeks to provide in its budget a separate item for the purchase of these products.

At the same time, if in 2016 the number of Contracting authorities was 1,673 units, then in 2020 their number increased significantly and amounted to 3,713 units.

Chart 74. TOP 5 Contracting authorities with the largest volume of public procurement of “Detergent” products in 2021.

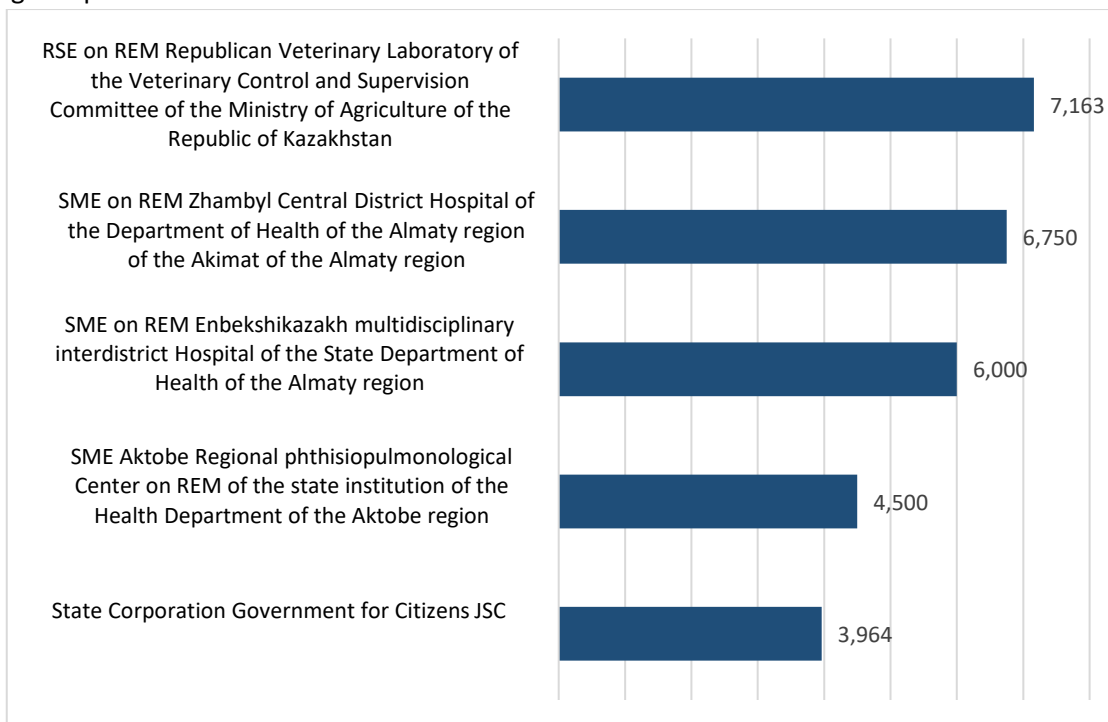
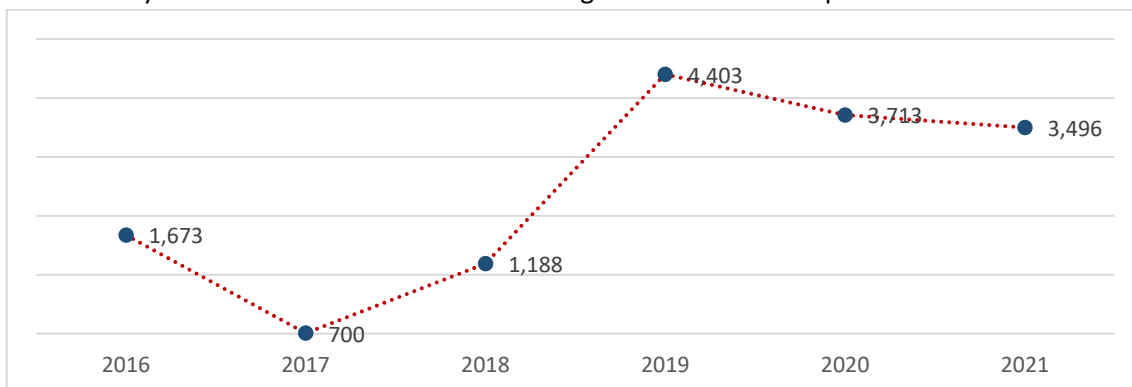


Chart 75. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of “Detergent” products showed that the market of manufacturers and distributors of these products is quite developed and in 2019 there were about 2,889 Suppliers. At the same time, in 2017 there were only 720 Suppliers of this type of product.

Chart 76. TOP 5 Suppliers with the largest volume of public procurement of “Detergent” products in 2021.

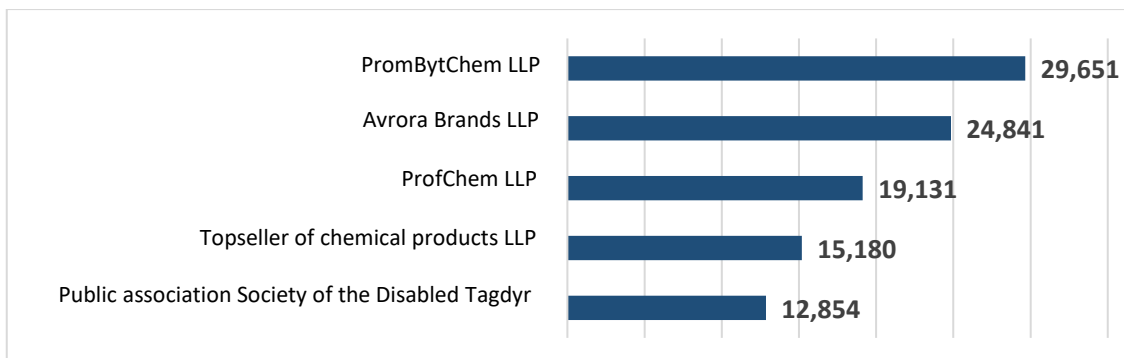
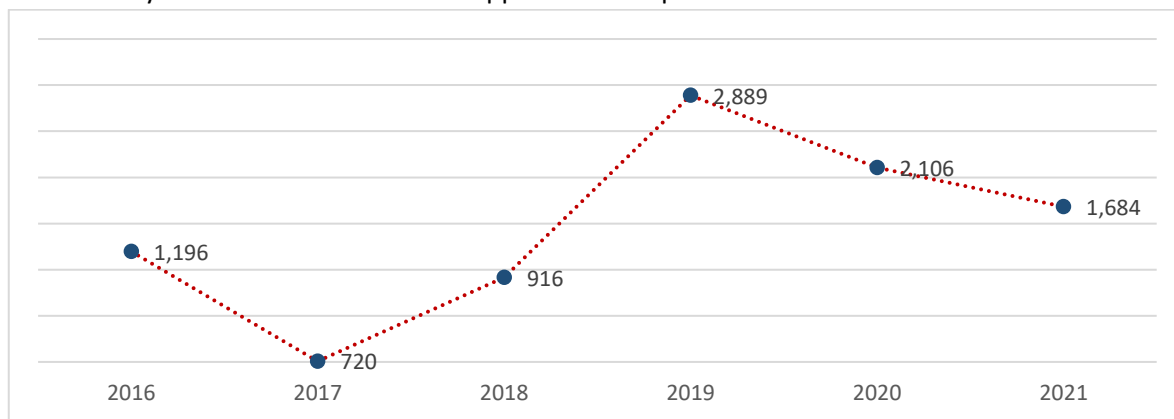
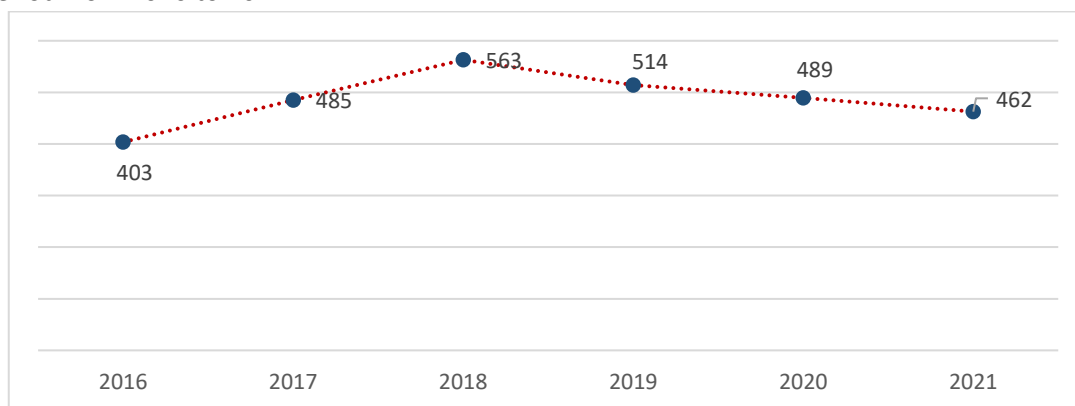


Chart 77. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of “Detergent” product for the period from 2016 to 2021 showed an increase in prices from 2016 to 2018. However, since 2019, the volume of production of these products has increased and as a result, the price in 2021 decreased to 462 tenge per unit.

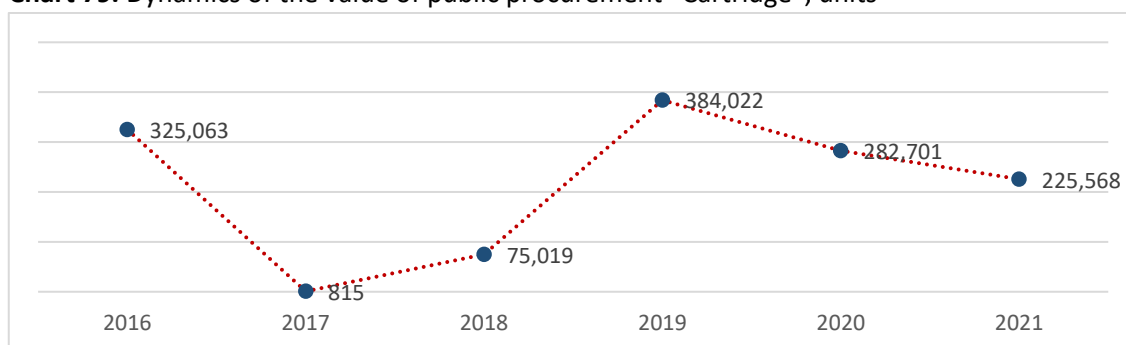
Chart 78. Dynamics of average purchased prices in public procurement of “Detergent” products for the period from 2016 to 2021.



3.9 Cartridge

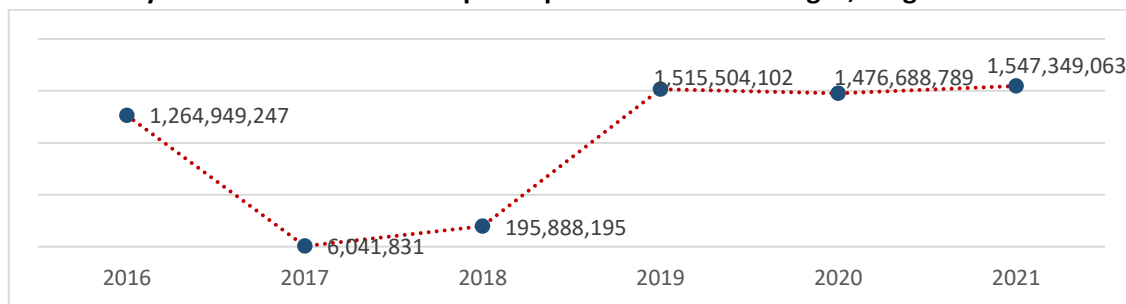
Since 2019, the demand and volume for these products has increased dramatically. If in 2016 the volume of purchases amounted to 1.3 billion tenge, by 2021 it increased by 15% and amounted to 1.5 billion tenge.

Chart 79. Dynamics of the value of public procurement “Cartridge”, units



Accordingly, the state budget allocated for public procurement of these products has increased.

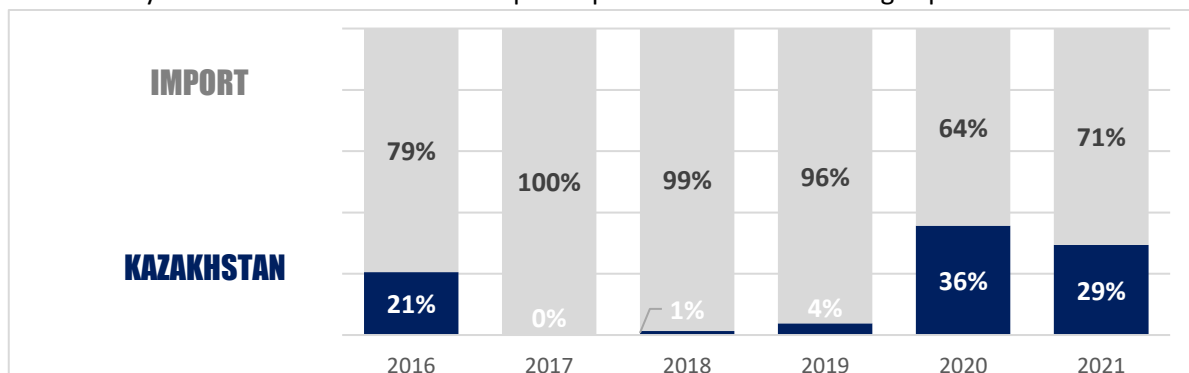
Chart 80. Dynamics of the amount of public procurement “Cartridge”, tenge



It should be noted that the volume of purchases from domestic manufacturers for the period from 2016 to 2021 amounted to 1.3 billion tenge, while the purchase of imported goods amounted to 4.7 billion tenge.

On average, the share of imported goods purchased by the Republic of Kazakhstan is about 85%, while only 15% is accounted for by DCP.

Chart 81. Dynamics of the share of DCP in public procurement of “Cartridge” product.



At the same time, if in 2016 the number of Contracting authorities was 5,002 units, then in 2021 their number decreased significantly and amounted to 2,723 units.

Chart 82. TOP 5 Contracting authorities with the largest volume of state purchases of “Cartridge” product in 2021.

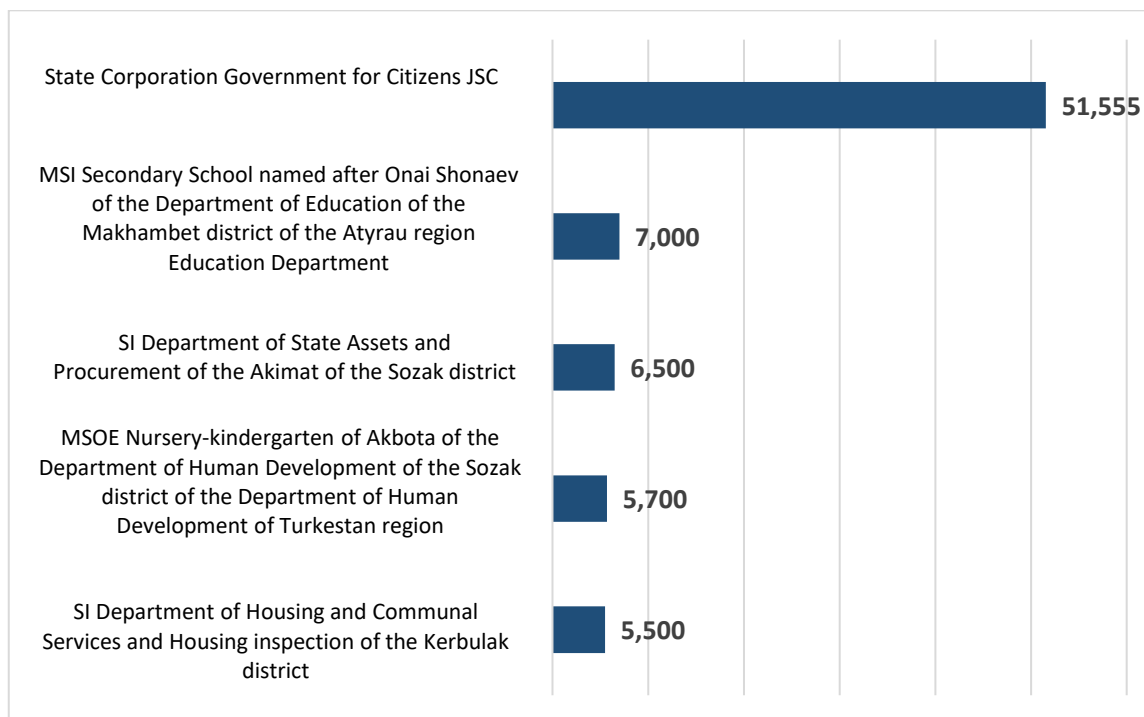
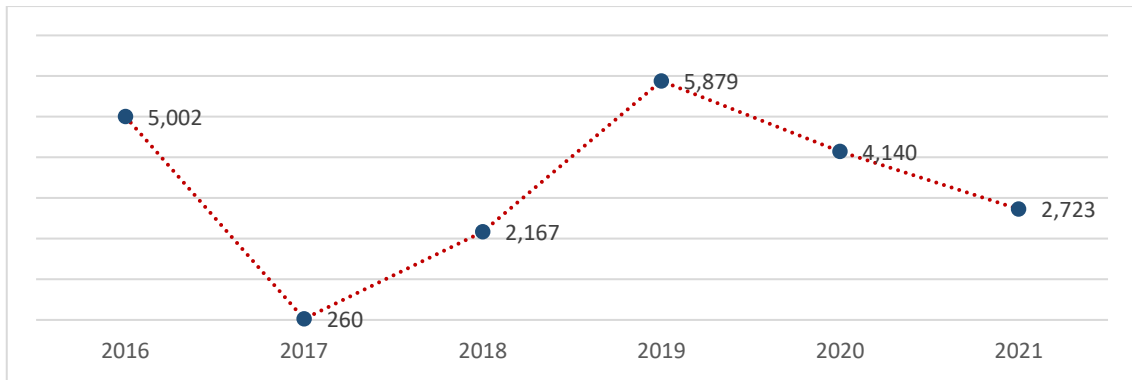


Chart 83. Dynamics of the number of Contracting authorities for the period from 2016 to 2021.



The analysis of Suppliers of Cartridge products showed that the market of manufacturers and distributors of these products is quite developed and in 2019 there were about 2,807 Suppliers. At the same time, in 2017 there were only 340 Suppliers of this type of product.

Chart 84. TOP 5 Suppliers with the largest volume of state purchases of "Cartridge" product in 2021.

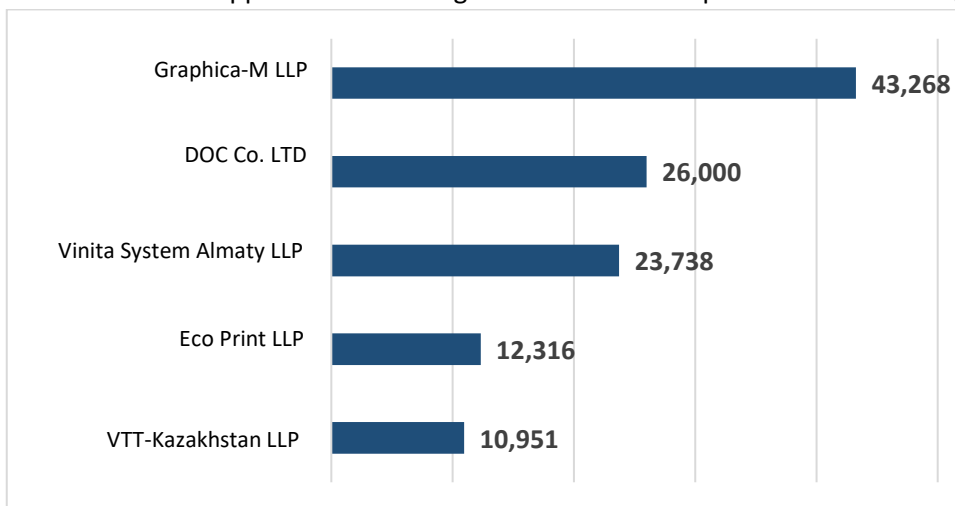
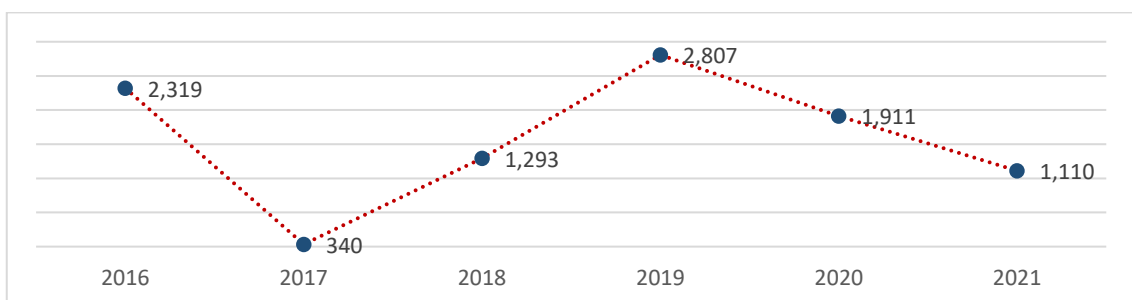
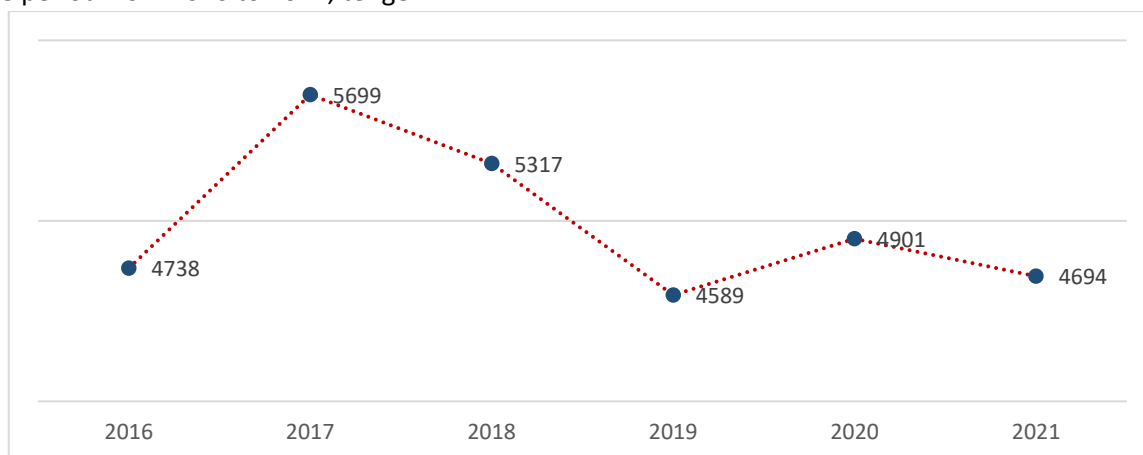


Chart 85. Dynamics of the number of Suppliers for the period from 2016 to 2021.



The analysis of the prices of "Cartridge" products for the period from 2016 to 2021 showed an increase in the average price in 2017 to 5,699 tenge. At the same time, the lowest average price was formed in 2019 and amounted to 4,589 tenge.

Chart 86. Dynamics of average purchased prices during public procurement of “Cartridge” products for the period from 2016 to 2021, tenge



The analysis of the purchased goods demonstrated that in 2021 there was an increase in the volume of purchases of goods compared to 2016, respectively, the number of suppliers also increased.

Table 5. Comparative information for 2016 and 2021 on purchased products.

№	Title of the goods works and services	Volume of purchase, units		Purchase value, ₸		Import, ₸		Suppliers	
		2016	2021	2016	2021	2016	2021	2016	2021
1	Mask	1 478 443	40 595 437	24 806 680	523 280 661	17 721 500	431 746 430	472	871
2	Paper	495 767	8 311 280	88 800 707	1 042 302 067	56 354 097	806 172 966	685	2 333
3	Cardboard folder	1 464 984	4 661 593	71 504 170	306 823 944	42 868 153	268 443 482	1 672	2 298
4	Punched pockets	3 478 487	5 275 488	43 286 610	150 450 744	32 447 641	134 924 264	1 366	1 579
5	Soap	218 742	5 723 700	47 715 373	917 057 153	36 304 475	790 137 627	119	2 298
6	Notebook	283 527	2 664 719	51 292 617	310 618 526	35 004 070	165 685 712	1 396	1 104
7	Paint	36 762	1 718 985	10 448 178	559 302 930	5 422 519	455 484 288	170	1 530
8	Disinfectant	116 740	3 758 915	98 949 674	4 129 108 522	19 930 950	3 179 684 242	385	1 361
9	Detergent	330 039	814 193	109 151 370	324 126 548	74 800 116	286 408 438	1 196	1 684
10	Cartridge	325 063	225 568	1 264 949 247	1 547 349 063	1 005 451 726	1 092 420 841	2 319	1 110

4. MARKET RESEARCH ANALYZING THE AVAILABILITY OF SUSTAINABLE OPTIONS AND THEIR PRICES

This section will review availability of these alternative products on the market, their prices, as well as readiness of producers/suppliers to supply greener products on the market and offer them for public procurement tenders.

When researching the market, sustainable products of domestic production and their prices are considered, the readiness of the domestic market to provide alternative goods is studied. The “Notebook” product is not manufactured in Kazakhstan and the analysis of this product has not been carried out.

4.1 Disposable medical mask

A medical mask is a medical device, usually consisting of a filter layer placed, bound or compressed between layers of tissue. The medical mask should not delaminate, disintegrate or tear during use. When choosing filter materials and layers, special attention should be paid to the degree of purity (*absence of solid particles*).

Medical masks are made of a special polymer material spunbond (spunlaid). Such masks decompose from 10 to 12 months in an open space and when exposed to sunlight or from 3 to 5 years without sunlight. According to the World Wide Fund for Nature, 1% of improperly disposed masks can turn into 40 tons of plastic in the environment.

In the production of sterile disposable medical face masks in Kazakhstan, the requirements provided by the MS GOST 12.4.293-2015 (EN 136:1998) “Occupational safety Standards System. Personal respiratory protection equipment” are applied.

The production process of disposable medical masks is fully automated and is accompanied with the cost of electrical energy. The production of one mask consumes about 10-30 W/h of energy and releases 59 g of CO₂ into the environment.

The disposal of masks used in medical institutions is carried out in accordance with the requirements for the treatment of medical waste.

In the Republic of Kazakhstan, 17 companies are engaged in the production of medical masks. In total, the plants produce more than 1 million 600 thousand masks per day.

The undisputed leader in production capacity is the company Dolce LLP. This company produces 360 thousand masks per day. The second position in this indicator is occupied by Ottimo LLP (*200 thousand units per day*). The top three also includes BionickPro LLP (*180 thousand units per day*).

Masks-respirators are produced in the Republic of Kazakhstan by only two manufacturers: Medical Active Group LLP and ECOS LLP. The most affordable products are produced by Dolce LLP and Flexy Pharm LLP, 13 and 12 tenge per unit of medical mask.

Gauze and fabric masks are sold on a contractual basis with local executive bodies. To date, work on the production of medical masks is carried out around the clock by domestic enterprises: Dolce LLP (Almaty region), Super-pharm LLP (Zhambyl region), Mega Pharma LLP (Zhambyl region), Medical Active Group LLP (Almaty), Merusar LLP (Pavlodar), TK-Pharm Aktobe LLP (Aktobe). In addition, together with local executive bodies, more than 70 sewing enterprises have been involved in the production of masks: Dalatex LLP (Kyzylorda), Bolshevichka LLP (Kostanay), Eco-Farm LLP (Shymkent), As Farm LLP (East Kazakhstan region), Tynys JSC (Kokshetau), KazLegProm LLP (Almaty), Zhanarys LLP (Mangystau region), etc.

The production and sale of face masks (protective) for reusable use from cotton fabrics does not require registration, as well as a license, since this type of product is not a medical device and does not fall under the objects of the Technical Regulations of the EAEU TR 019 “On the safety of personal protective equipment”.

In accordance with the legislation of the Republic of Kazakhstan, enterprises have the right to produce and sell products according to the organization’s standard, if the products do not fall under the technical regulations. To date, the capacities of all pharmaceutical and clothing enterprises at full load can produce up to 1 million units /day. Domestic sewing enterprises produce reusable 4-, 8-, 16-layer masks made of cotton fabrics (gauze, calico), which, like medical masks, are used for preventive protective purposes as a barrier for direct transmission of infectious particles from the mask carrier to other people.

The cost of cotton masks depends on the type of fabric and the number of layers and varies from 100 to 500 tenge per unit. Since both individuals and legal entities (sewing ateliers or workshops) are engaged in the production of such masks, it is not possible to determine the price from the manufacturer. They are sold on the market without packaging and labels from the manufacturer.

Cotton masks are more environmentally friendly than disposable medical masks, since they can be reused after cleaning and disinfection.

Disposable medical masks are made of non—woven material - spunbond. In fact, it is plastic that cannot be recycled due to an increased hazard class, since it is medical waste. Once in a landfill, a mask decomposes for centuries and harms the environment.

Table 6. Price of medical masks on the domestic market.

Product title	Made of spunbond, tenge	Made of cotton, tenge
Medical mask	12-20	100-200

4.2 Paper products

The production of paper products in Kazakhstan is growing from year to year. Paper products are partially made from recycled materials. The leaders in the processing and production of paper and paper products are the following companies: Kagazy Recycling LLP, Emkor Specialty Cartons Kazakhstan LLP, NUR KAGAZY LLP, Parus Production and Printing Plant LLP, KARINA TRADING LLP.

Image 1. Production of paper products in the regions of Kazakhstan.

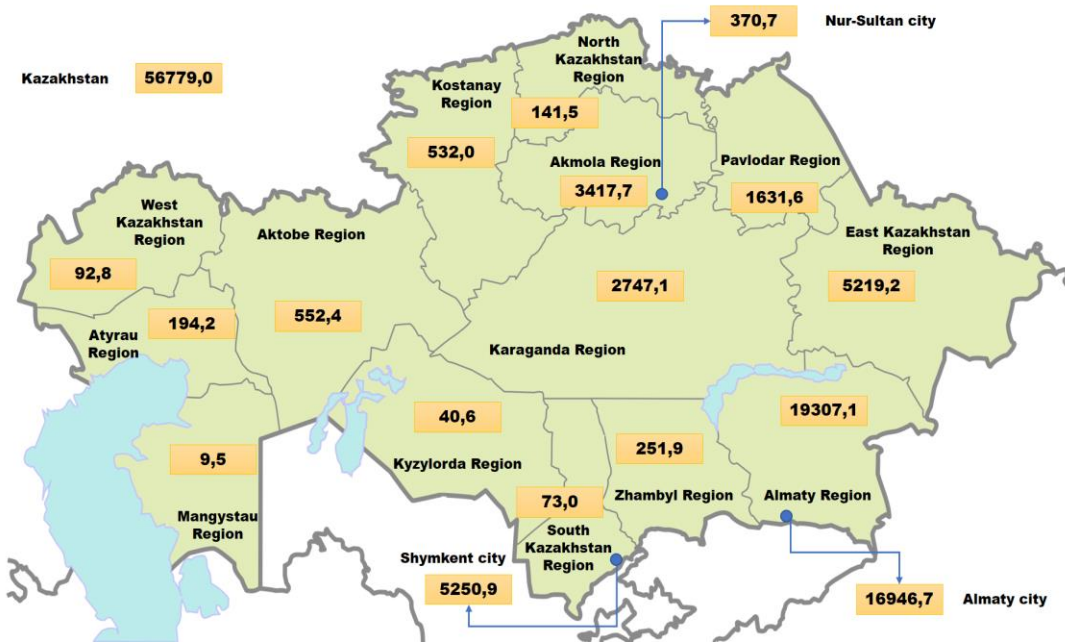
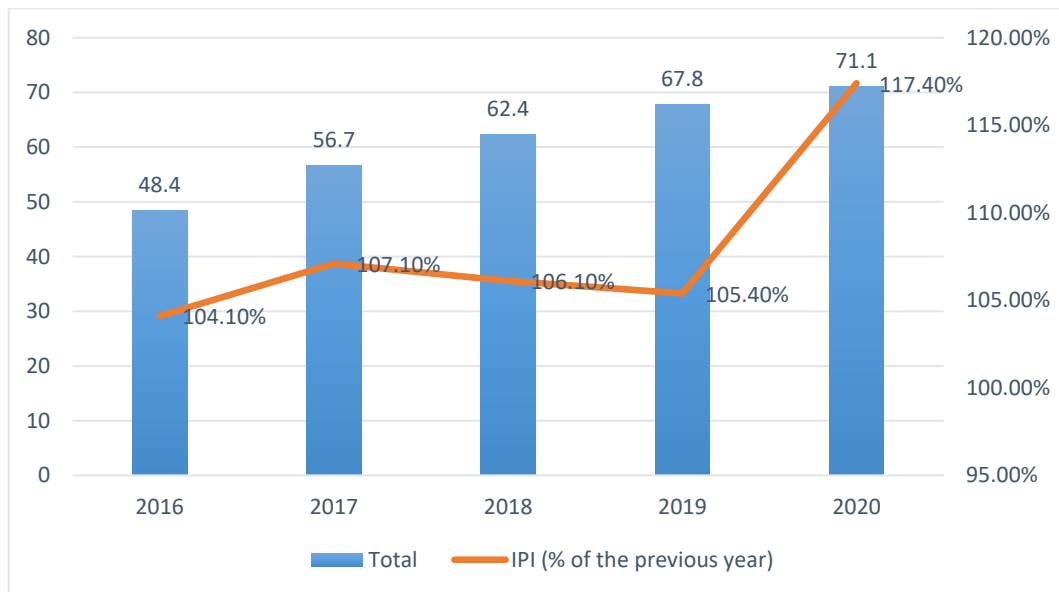


Chart 87. Production of paper products in the regions of Kazakhstan.



IPI - Industrial production index.

In physical terms, the dynamics of output varies for different product categories. Thus, the production of corrugated perforated paper and cardboard has reached 37.5 thousand tons. The production of paper handkerchiefs and napkins also increased to 2.6 thousand tons, as well as the production of boxes, cases and bags made of paper or cardboard - up to 73.3 thousand tons.

The Government of the Republic of Kazakhstan has introduced a ban on the export of paper and waste paper, in order to provide domestic processors of regenerated paper or cardboard (waste paper and waste) with affordable raw materials to reduce the cost of final products on the domestic market.

Table 7. Production of paper and paper products. January-August 2021 (thousand tons).

№	Product title	2021/08	2020/08	Annual growth
1.	Corrugated perforated paper and cardboard, in rolls or sheets	37.5	21.4	74.8%
2.	Handkerchiefs, cosmetic napkins from the mass of paper, paper, cellulose wool or cloth made of cellulose fiber	2.6	2.3	10.0%
3.	Boxes, cases and bags made of corrugated paper or cardboard	73.3	70.1	4.7%
4.	Hand towels made of paper pulp, paper, cellulose wool or cellulose fiber cloth	3.5	3.7	-6.6%
5.	Toilet paper	23.8	26.4	-9.7%

Source: Bureau of National Statistics, Agency for Strategic Planning and Reforms of the Republic of Kazakhstan.

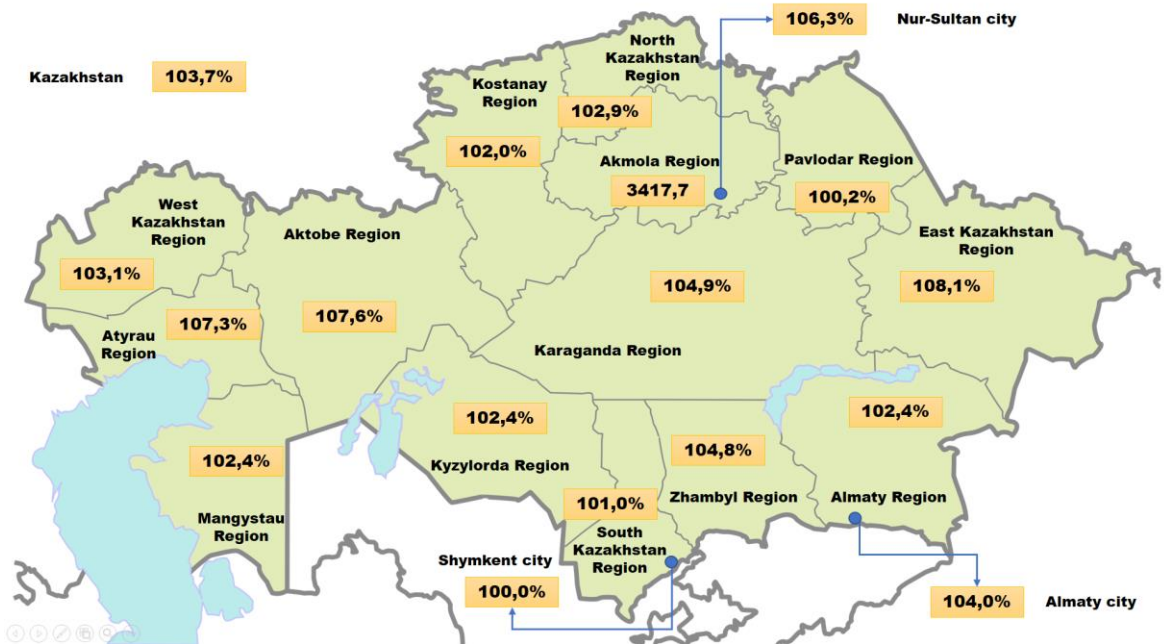
According to the results of January–July of 2021, local companies provided demand (*sales on the domestic market and exports*) for toilet paper, as well as paper handkerchiefs, napkins, towels and tablecloths by 68.7% against 72.2% a year earlier. Production during this period decreased by 9.1%, to 26.8 thousand tons. At the same time, imports increased by 7.9% to 12.2 thousand tons.

The demand for paper for the manufacture of sanitary or cosmetic napkins and other similar products is provided by local production by only 36.5%, despite a 2.7 times increase in production over the year. Imports in the sector also increased - by 13.4%, to 4.4 thousand tons. 6.9 thousand tons of products were sold on the domestic market — 43.2% more than a year earlier.

In the country, on average, about 19 million rolls of toilet paper are sold per month. In the first half of 2021, 18.3 thousand tons of toilet paper were produced in the country – 4.7% less than a year earlier. In the regional context, the main volume of production fell on the city of Almaty: 84.7% of the total output of toilet paper in the Republic of Kazakhstan, or 15.5 thousand tons, an 11.2% decrease over the year, was produced here. Considerable volumes of output also fall on the Aktobe region (*1.2 thousand tons, annual growth - 4.5 times*) and the city of Shymkent (*642.9 tons, 48.1% increase*).

In general, in 2020, local companies produced 36.9 thousand tons of toilet paper – only 2% more than in 2019. For comparison: in 2019, annual production growth accounted for 27.7%, up to 36.1 thousand tons.

Image 2. Consumer index price for toilet paper in the regions of Kazakhstan.



As mentioned above, paper products of Kazakhstan’s origin are quite competitive with imported products. Some domestic manufacturers have an advantage in terms of environmental friendliness. Table 8 provides comparative information on paper products, indicating the price and advantages.

Table 8. Information about ‘best in class’ actor suppliers on the domestic paper market.

№	Product type	Product Title	Cost per unit ₸	Additional information
1.	Toilet paper	Toilet paper “Jumbo” 150 m. single-layer Manufacturer: KARINA TRADING LLP (Kazakhstan).	188	Composition: 100% waste paper.
2.		Toilet paper Jumbo “ALBA” Manufacturer: Almaty Paper Factory	405	Composition: 100% cellulose
3.		Toilet paper Jumbo (jumbo) 120 m. single-layer Manufacturer: Trade Mark (TM) “Aktobe Kagazy” (IE Beisembayev).	220	Composition: 100% waste paper.
4.	Paper napkin	Napkin “Dolphin” color The manufacturer is KARINA TRADING LLP (Kazakhstan).	73	Composition: waste paper.
5.		Napkins “ALMAX” 24x24 Manufacturer: Almaty Paper Factory	95	Composition: 100% cellulose
6.		Single-layer napkins 24x24 Manufacturer: TM “Aktobe Kagazy” (IE Beisembayev).	50	Composition: 100% cellulose
7.	Paper towel	Paper towels “Karina” 22 cm Manufacturer: KARINA TRADING LLP (Kazakhstan).	113	Composition: recyclable materials

8.		Sheet Paper Towels “Z Tap Taza” 200 Sheets Manufacturer: Almaty Paper Factory	329	Composition: 100% cellulose
9.		Paper rolls, 30 meters Producer: TM “Aktobe Kagazy” (IP Beisembayev).	85	Composition: waste paper.

4.3 A4 cardboard folder

Cardboard folders are made of thick bound cardboard. Its thickness varies from 1.5 to 2.5 millimeters. Manufacturers use raw materials of domestic and foreign production. There are folders made of coated and uncoated cardboard on the market. Coated cardboard has an additional smooth layer on the surface. The coating solution is made of: Pigment (2-titanium oxide or satin vac), a bonding agent (often using ordinary PVA, PV alcohols, starch or casein glue), additives (various fatty and butyric acids, silicone and polymers). Folders made of cardboard, in the production of which recycled materials were used, as well as uncoated cardboard are more stable. Table 9 below shows the prices of domestic folders for imported and domestic production of folders made of recycled cardboard, indicating the type and composition.

Table 9. Information about ‘best in class’ actor suppliers on the domestic folder market.

№	Product title	Price per unit. ₸	Additional information
1.	Cardboard folder made by TM KUVERT (Kazakhstan)	65	Coated Composition: secondary raw materials
2.	Cardboard folder made by “Aktyubinskoye UPP Public Association Kazakh Society of the Blind” (Kazakhstan)	56	Uncoated Composition: secondary raw materials
3.	Public Association of Disabled People “ArtNur” (Kazakhstan)	48	Uncoated Composition: secondary raw materials
4.	Folder Case white, coated LAMARK cardboard	141	Coated Composition: cellulose
5.	Paper folder with ties, coated cardboard, 280g/m ² , white OfficeSpace	70	Coated Composition: secondary raw materials

4.4 Punched pockets for documents, with and without perforation, made of polypropylene film

Polypropylene film is used for the production of punched pockets for documents. The manufacturing process takes place almost completely without human intervention. The main apparatus of stationery files is a constructive machine.

Polypropylene waste is subject to recycling.

The share of the purchase of punched pockets made in Kazakhstan is 22%. Competition in the domestic market for the production of punched pockets is moderate, as imported products enter the country. Raw materials for the production of punched pockets are imported. There are two active manufacturers on the market that provide services for the production of punched pockets.

The product has no alternative on the market.

Table 10. Information about suppliers/goods on the domestic punched pockets market

No	Product title	Price per unit. ₸
1.	IE “AKTAN”	17
2.	Kuvert trademark	18

4.5 Soap, detergents and disinfectants

This subsection describes the products specified in sub-paragraphs 3.5, 3.7, 3.8 of this report, since their production in Kazakhstan refers to household chemicals.

State procurement mainly purchases disinfection products, liquids for dishes and glass, hand soap, of which about 18% are of Kazakhstan’s origin only. The main manufacturers/suppliers are the Commonwealth of Independent States (CIS) and neighboring countries.

The chemical industry of Kazakhstan is one of the most high-tech industries. In 2010-2019, the volume of chemical production increased 4.5 times (*from 104.1 to 475.1 billion tenge*). The range of products has expanded. The segment of consumer chemicals has great potential. Mainly, the produced products are solid household soap, liquid soap, organic surfactants, industrial cleaning products, washing powders, shampoos, kitchen and cleaning detergents, dry cleaners, disinfectants and personal hygiene products.

In terms of value, over the period 2015-2019, the production of consumer chemicals increased by 85.1%. The pandemic caused by the spread of the COVID-19 virus had a positive impact on the indicators of certain areas, both in Kazakhstan and in the world. The demand for disinfectants and antiseptics has increased in the chemical industry.

Soap and detergents of various compositions are presented on the market of Kazakhstan. Products containing nonionic surfactants and vegetable fat may be more resistant than products with synthetic surfactants, vegetable fat and various chemical additives for flavor and color.

Table 11 provides information about domestic manufacturers, the composition of their products and price conditions on the market.

Table 11. Information about ‘best in class’ actor suppliers on the domestic market for chemical products.

No	Product type	Product Title	Cost per unit ₸	Additional information
1	Solid soap	Adal Plant LLP, line of solid soap “SULU”, 90 g Manufacturer Kazakhstan	129	Composition Premium soap granules, artesian water, EDTA, exclusive perfumes (without the addition of alcohol).
2		Soap “Aisha”, 75 g Manufacturer Kazakhstan IE “Appasov E.S.”	150	Made from fatty acids of vegetable oil with the addition of palm stearin and flavorings. Certificate of conformity. CT PK ISO 9001-2009
3		Soap LLP “Rainbow” 100 g Manufacturer Kazakhstan TM Economic Care	133	Sodium salts of fatty acids of animal fats, palm and coconut oils, water, aromatic composition, titanium dioxide, triclosan, EDTA, table salt.

4		Household soap 200 g KHOZMYLSERVICE LLP	81	Composition: sodium salts of fatty acids of natural fats and oils, with the addition of glycerin, plasticizers, antioxidants and emollients. The product is certified in Kazakhstan
5	Liquid soap	Liquid soap 5 liters Manufacturer Kazakhstan CRYSTAL "Ameli +"	1078	Composition: Surfactants, humidifiers, preservatives, thickener, colorants and flavoring.
6		Liquid soap 5 liters Manufacturer Kazakhstan Bosstex Group LTD	540	Composition: demineralized water, a specialized mixture of surfactants, complexing agents. The product is certified
7	Disinfectants	Disinfectant "Dezotabs", chlorine in tablets, 1000 g Manufacturer Kazakhstan LLP "NAZAR GLOBAL TRADE"	3850	Contains the sodium salt of dichloroisocyanuric acid 66.7% with a content of active chlorine - $47 \pm 2\%$, adipic acid.
8		Chlorine-containing disinfectant "Chlordesin" 1000 g Manufacturer Kazakhstan LLP "PARITY-2004"	3450	Contains active chlorine from 12% to 60%
9		Disinfectant "CHLORINE-AL", granules and tablets Manufacturer Kazakhstan Aurora Holding LLP	2500	Contains the sodium salt of dichlorizocyanuric acid - 99.8%.
10	Antiseptics for hands	Antiseptic agent "Irtysh Forte" 1 liter Manufacturer Kazbythim LLP	1800	COMPOSITION: demineralized water more than 30%, isopropyl alcohol (or ethyl) more than 30%, flavor less than 5%, alkylidimethylbenzenammonium chloride less than 5%, dedecyldimethylammonium chloride less than 5%. The product is certified in accordance with the CT TOO 451500254028-003-2010
11		lsosept - antiseptic for hands (sanitizer) 1 liter Manufacturer Microchem LLP, Kazakhstan	2700	COMPOSITION: based on alcohols, quaternary-ammonium compounds, functional additives, softening and moisturizing components of the skin. The product is certified by CT 67739-1910-TOO, suitable for import within the Customs Union
12		Medicept - antiseptic for hands (sanitizer) 1 liter. Manufacturer:Mega Pharma LLP	2016	COMPOSITION: ethanol, purified water, glycerin, hydrogen peroxide, as well as auxiliary components

				(produced according to the method recommended by WHO). The product is certified by CT 67739-1910-TOO
13		Antiseptic for hands - Akmassept, 1 liter Manufacturer: Aurora LLP	3800	COMPOSITION: 2,4,4-trichloro-2-hydroxydiphenyl ether (triclosan) - 0.25%, as well as functional additives.
14		Antiseptic 1 l. "GREEN SEPT" manufacturer Kazakhstan: KP Chemical	1500	Composition alcohol, water, glycerin, peroxide, fragrance.
15	Detergents for washing dishes, glass and surfaces	BIOCLINE for washing glasses and mirror surfaces, 750 ml Manufacturer Microchem LLP, Kazakhstan	430	COMPOSITION: concentrate, solvent, including isopropyl alcohol; surfactant, anionic surfactant, ammonium carbonate, dye, perfume composition, water and other components.
16		Dishwashing detergent canister 5 liters Manufacturer: Kazakhstan Production and Trading Company GREEN CHEMICAL	1500	Composition: Water, anionic surfactant 5-10%, nonionic surfactant less than 5%, alkali less than 0.5%, dye, fragrance auxiliary components
17		Dishwashing detergent Enchantress, manufacturer Kazakhstan, TM Softline, 3 liters	990	Composition: 7-15% anionic surfactants
18		Dish washing gel with a fruity aroma in the assortment, 1 liter Manufacturer Aurora, Kazakhstan	705	Anionic surfactants, fragrance, functional additives.

4.6 Paint

Water-dispersion paint is a pigment dispersed in an aqueous medium and binding components that form a homogeneous emulsion. The paint consists of polymers, the smallest particles of which are suspended in water. Depending on the manufacturing technology and the binder polymer, there are several varieties: acrylic, silicone, acrylic latex and silicate water-based emulsion paint.

Water-dispersion compositions do not contain organic solvents, so they are odorless and environmentally friendly.

At the same time, the production of paints and varnishes, as well as their components (*pigments, fillers, film-forming, solvents, plasticizers, hardeners, etc.*) is accompanied by the production of a significant amount of contaminated wastewater, gas emissions, solid and liquid waste. The largest share (*by weight*) in the structure of pollutants are organic solvents, pigment dust, and water-soluble sulfates.

After using the water-dispersion paint, waste is generated in the form of a container of paints and varnishes.

There are companies on Kazakhstan's market that, while producing the paints, are guided by their own in-house standards of environmental cleanliness of products, and these standards are usually stricter

than generally accepted, offering customers high-quality materials for a variety of purposes. For example, the factories of such companies are equipped with European equipment and aspiration units, which allow them to produce not only high-quality products, but also to take care of the environment. Such companies have implemented a “Policy of recycling and disposal of generated production waste”. Waste is sorted by fractions and such types as waste oils, polyethylene, cardboard, big bags, barrels are sent for secondary use. Also, the water that is used in the production of water-based paints undergoes a closed-loop process due to the installation of wastewater treatment and reuse, which completely eliminates the contamination of water resources. Table 12 below provides information about the products with additional information on their properties, environmental policy and composition of the goods.

Own waste disposal results in job creation, especially by providing an opportunity to work for people with disabilities.

Table 12. Information about ‘best in class’ actor suppliers on the domestic market for the production of paint and varnish products.

№	Product Title	Price per unit (tenge)	Additional information
1.	<i>Water-based paint</i> OPTIMA 7 kg Alina Group Of Companies, Kazakhstan	4,102	Eco-friendly, odorless, non-toxic. The policy of environmentally friendly products has been implemented
2.	<i>Paint Belosnezhka 7 kg</i> LLP "SMASH LTD" with the trademark "GAUDI PAINT", Kazakhstan	3,090	Properties and scope of application: Designed for painting walls and ceilings of residential and office premises. Fireproof. Environmentally friendly.
3.	<i>Paint ENAMEL 10 liters</i> SP Belyi Dom LLP, Kazakhstan	18,700	Composition: water, calcium carbonate, titanium dioxide, acrylic binder, functional additives. The material is non-toxic, does not contain organic solvents, fire- and explosion-proof, with a faint odor, resistant to the appearance of fungus
4.	<i>Paint VDAK 7.5 kg</i> Derzhava Lux Company, Kazakhstan	3,865	Composition Suspension of pigments and fillers in an aqueous dispersion of an acrylic copolymer with the addition of excipients. The paint is fire-explosion-proof, non-toxic.

4.7 Toner cartridge, black

28% of cartridges purchased within the framework of the state order are assembled in Kazakhstan. Cartridges are divided into laser monochrome cartridges, laser color cartridges, inkjet cartridges, tape cartridges and LED printer cartridges.

Depending on the model of the device used, cartridges are available in various models and sizes.

The appearance of the cartridges consists of a plastic element and metal parts. The cartridges use toner. Toner is a fine powder with particle sizes up to 20 microns. It stays on the walls in the form of the smallest dust, which, if handled incorrectly, enters the respiratory tract of living organisms. Toner microparticles are not recognized by the body as a foreign element. When they get into the lungs, they stay there forever.

The cartridge production process requires a significant amount of natural resources, such as metal, aluminum and oil.

During the production of one toner cartridge, about 4.8 kg of CO₂ is released. Plastics that are used in printer cartridges consist of an engineering-grade polymer (*polystyrene compounds*), the decomposition rate of which varies from 450 to 1000 years. Compounds made of polystyrene and the material are extremely toxic while burning, in which soot, magnetite, ethylene compounds, vinyl acetate, titanium dioxide, aluminum oxide, magnetic additives are released. (*impact of cartridge waste on the environment (quadrotoner.ru)*)

In order to reduce the environmental impact, refurbished cartridges should be used, which allows companies to save from 15% to 50% of costs. Refurbished cartridges are more environmentally friendly, as well as economically beneficial, since they use the original casing from the manufacturer.

Kazakhstan's manufacturers mainly use the method of restoring original cartridges. There is no competition in the domestic cartridge production market. To date, there are five companies for the production of cartridges. Their production technology and price offer do not vary significantly. At the same time, two of them are active on social networks presenting products on internet resources.

Table 13. Information about 'best in class' actor suppliers on the domestic market for the production of cartridges.

№	Product Title	Price per unit (tenge)
	Manufacturer: ALU LLP, Kazakhstan HP, CANON, SAMSUNG, XEROX	from 11,130 and above, depending on the model
	Manufacturer: MAK © , Kazakhstan HP, CANON, SAMSUNG, XEROX	2,700 – 40,430 depending on the model

5. SPP CATEGORIES AND THE DESCRIPTION

5.1 SELECTED PRIORITY PRODUCTS

The analysis of 10 priority products showed that the volume of imported products purchased significantly outstrips purchases of local production. Assumingly, It is due to weak capacity of local production.

It may be related to the volume of production in the domestic market, which is not able to supply the demand on the local market. Herewith, manufacturers of disinfectant products have increased imports of goods during the COVID-19 pandemic. However, the share of domestic product in public procurement accounts only for 40%

The production of disinfectants and medical masks is more associated with the pandemic period, and therefore decreasing its potential for sustainability.

Thus, for further consideration of goods for SPP, the most purchased goods related to COVID-19 are excluded from the final list of SPP and replaced with more purchased goods during public procurement tenders.

- Paper hygiene products (toilet paper, paper towel)
- Soap (household and toilet solid, toilet liquid);
- Detergents for washing dishes, glasses and mirror surfaces.

Paper hygiene products imported and manufactured in Kazakhstan from recycled materials can be an alternative product, since their production has minimal environmental impact, as well as minimal impact during the entire life cycle due to the low resource consumption of production and the possibility of recycling.

The Government of the Republic of Kazakhstan provides support measures to local manufacturers of paper products by introducing a ban on the export of waste paper and paper, in order to provide domestic producers with affordable raw materials.

Manufacturers of soaps and detergents, for washing dishes, glasses and mirror surfaces also receive state support under the Industrialization Map²¹ by the creation of working conditions and social support, providing the market with domestic products: 83 enterprises were introduced and 5.3 thousand new jobs were created in order to develop this industry.

On December 31, 2021, the Taxonomy of Green activities²² was approved by the decree of the Government of the Republic of Kazakhstan. If the threshold values of the Taxonomy are met, for example, the use of secondary raw materials, energy efficiency improvement, reduction of the carbon footprint, small and medium-sized businesses can receive preferential green financing under the Business Roadmap 2025²³.

Production of soap and detergents, despite their resource consumption, have a potential to decrease environmental impact by recycling product packaging waste, using biodegradable components and decreasing carbon footprint.

²¹ <https://adilet.zan.kz/rus/docs/P1400001418>

²² <https://adilet.zan.kz/rus/docs/P2100000996>

²³ <https://adilet.zan.kz/rus/docs/P1900000968>

5.2 PAPER PRODUCTS

The analysis was carried out to determine the priorities of the SPP, showed that paper products such as toilet paper more than 150 meters in a piece, paper towels, folders made of coated cardboard and notebooks are purchased at public procurement.

When purchasing about 30% of paper hygiene products and 24% of folders of domestic production, everything else, including simple notebooks are imported products. The main importers are the Commonwealth of Independent States countries. Kazakh manufacturers do not make simple notebooks, but special (*nominal, working, with a logo*) notebooks are collected from the finished raw materials, which demonstrates specific participation of local manufacturers.

In the Kazakhstan market products are made of paper, which fiber composition contains: cellulose; sorting selections of cellulose; mechanical, thermomechanical or chemical-thermomechanical wood pulp; chemical fibers, paper and cardboard waste paper.

The use of waste paper in the production of paper products is considered as a resource-saving technology, since the use of wood, electricity and water is reduced.

Toilet paper waste is not recycled in Kazakhstan. However, modern technology allows to create water-soluble products, and the disposal of toilet paper can be carried out by flushing into sewer networks. The resistance to water of paper towels and napkins increases during the production period, as well as their absorbency. Such waste is not re-cycled goes to landfills.

Waste stationery paper products are recycled and used as recyclable materials for the production of other paper products.

The technology of paper production allows the attraction of women and representatives of vulnerable groups as a labor force.

The raw materials for paper production are coniferous and deciduous trees. In some cases it is straw, grass, reeds, and other plant materials. They are cut into splinters using an electric saw and soaked in a large amount of water. Then they are cooked with the addition of acid on steam boilers. Next, the raw materials are washed, filtered and re-mixed with water, and sent under the press.

Obviously, extensive amounts of water and electricity are used for paper production. As a result, waste water and waste in the form of sediment are produced. The production of 1 ton of paper requires approximately 13-20 trees, 10-40 m³ of water, 400-900 kWh of electricity.

Production of paper from recycled materials consumes about 70% less water and 60% less energy than in the production of paper from fresh pulp.

Image 3. Production of paper products in the regions of Kazakhstan.

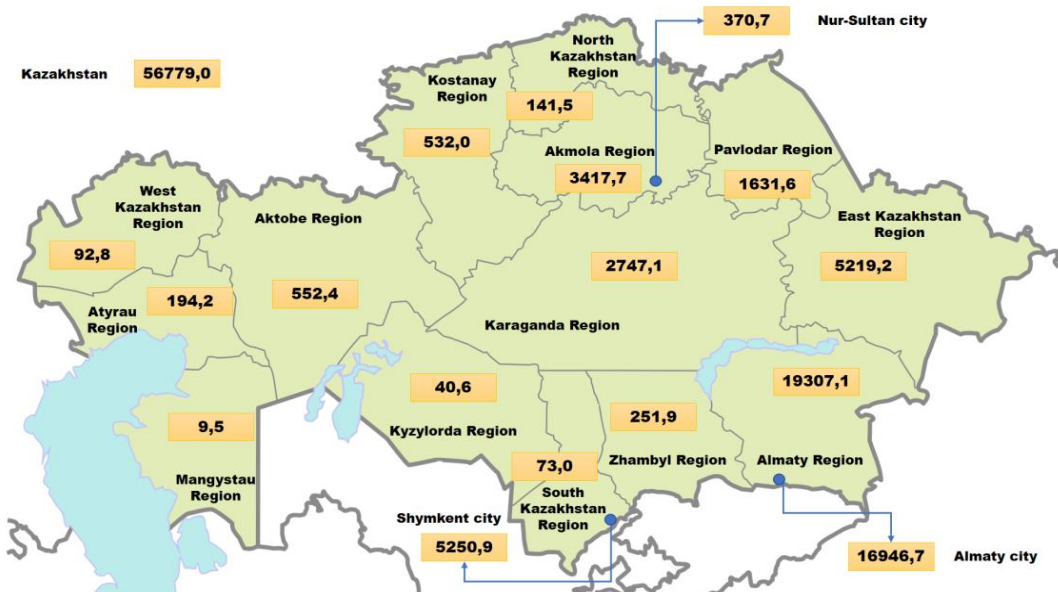
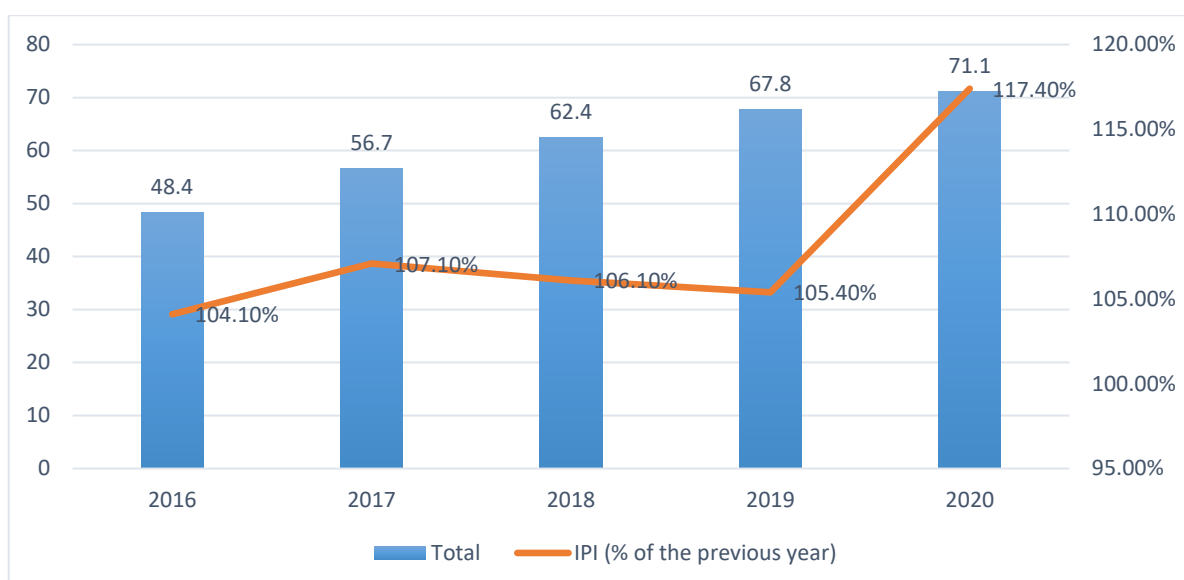


Chart 88. Dynamics of paper production.



IPI - Industrial production index.

During the first 8 months of 2021, in physical terms, the dynamics of output varies for different product categories. Thus, the production of corrugated perforated paper and cardboard has reached 37.5 thousand tons. The production of paper handkerchiefs and napkins also increased to 2.6 thousand tons, as well as the production of boxes, cases and bags made of paper or cardboard - up to 73.3 thousand tons.

The Government of the Republic of Kazakhstan has introduced a ban on the export of paper and waste paper, in order to provide domestic processors of regenerated paper or cardboard (waste paper and waste) with affordable raw materials to reduce the cost of final products on the domestic market. Through the SPP practices, the Government can support domestic producers through the principles of SPP, giving priority to goods that are environmentally and economically efficient.

Table 14. Information about ‘best in class’ actor suppliers on the domestic paper market.

№	Product Type	Product Title	Additional information
1.	Toilet Paper	Toilet paper “Jumbo” 150 m. single-layer Manufacturer: KARINA TRADING LLP (Kazakhstan).	Composition: 100% waste paper.
2.		Toilet paper Jumbo “ALBA” Manufacturer: Almaty Paper Factory	Composition: 100% cellulose
3.		Toilet paper Jumbo (jumbo) 120 m. single-layer Manufacturer: TM “Aktobe Kagazy” (IE Beisembayev).	Composition: 100% waste paper.
4.	Paper Napkins	Napkin “Dolphin” color The manufacturer is KARINA TRADING LLP (Kazakhstan).	Composition: waste paper.
5.		Napkins “ALMAX” 24x24 Manufacturer: Almaty Paper Factory	Composition: 100% cellulose
6.		Single-layer napkins 24x24	Composition: 100% cellulose

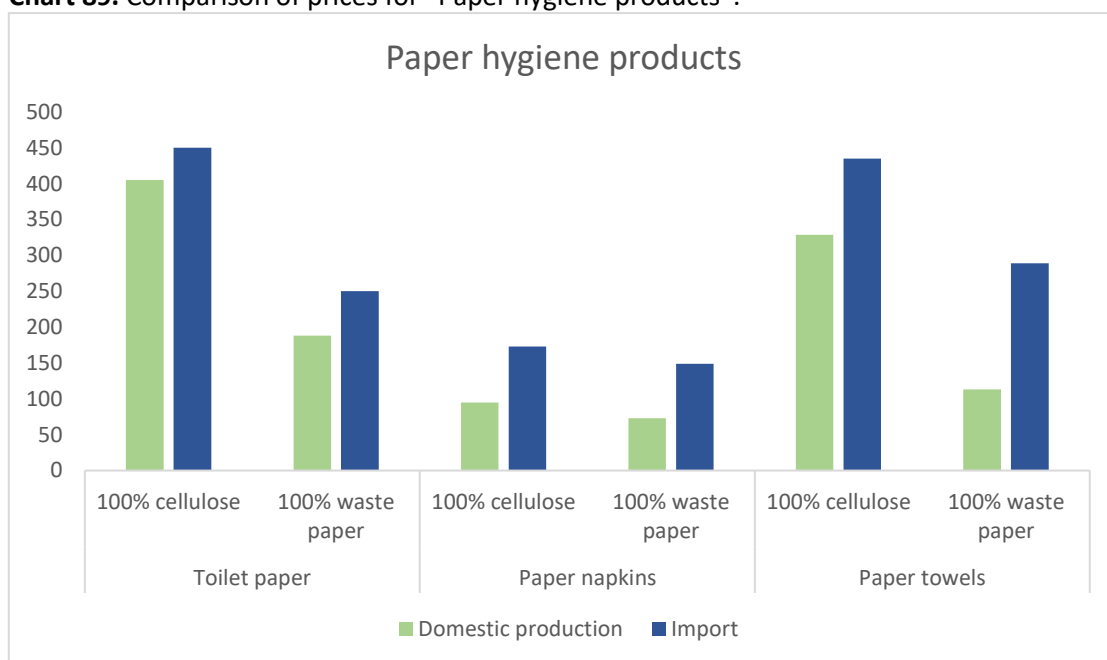
		Manufacturer: TM “Aktobe Kagazy” (IE Beisembayev).	
7.	Paper towels	Paper towels “Karina” 22 cm Manufacturer: KARINA TRADING LLP (Kazakhstan).	Composition: recyclable materials
8.		Sheet Paper Towels “Z Tap Taza” 200 Sheets Manufacturer: Almaty Paper Factory	Composition: 100% cellulose
9.		Paper rolls, 30 meters Producer: TM “Aktobe Kagazy” (IP Beisembayev).	Composition: waste paper.

Paper products of Kazakhstan’s origin are quite competitive in the market. Some domestic manufacturers have an advantage in terms of environmental friendliness. Table 15 shows comparative information on paper products, indicating the price and advantages.

Table 15. Prices for domestic and imported goods (tenge)

Product Type	Product composition	Price of domestic goods	Price of imported goods
Toilet paper	Made of 100% cellulose	405	450
	Made of 100% waste paper	188	250
Paper napkins	Made of 100% cellulose	95	173
	Made of 100% waste paper	73	149
Paper towels	Made of 100% cellulose	329	435
	Made of 100% waste paper	113	289

Chart 89. Comparison of prices for “Paper hygiene products”.



Thus, paper products from waste paper produced within Kazakhstan are the cheapest and, moreover, the most environmentally friendly and sustainable in general. Such statement is true for all hygienic paper products. At the same time, the waste of hygienic paper products is not suitable for recycling. Therefore, there is no possibility of obtaining additional value of the goods at the final stage of the life cycle. It is important to note that, despite the unsuitability for recycling, the waste of hygienic paper products does not pose a significant threat to the environment.

5.3 SOAP AND CLEANING PRODUCTS

The product groups “Soap” and “Detergents” were combined into one chapter, because they have similar categories of sustainable goods.

State procurement mainly purchases cleaning products for dishes and glass, liquid and solid hand soap, of which about 18% are of Kazakh origin. The main manufacturers/suppliers are CIS countries and neighboring countries.

Table 16. Information about ‘best in class’ actor suppliers on the domestic market for chemical products.

№	Product Type	Product Title	Additional information
1	Solid Soap	Adal Plant LLP, line of solid soap “SULU”, 90 g Manufacturer Kazakhstan	Composition Premium soap granules, artesian water, EDTA, exclusive perfumes (without the addition of alcohol).
2		Soap “Aisha”, 75 g Manufacturer Kazakhstan IE “Appasov E.S.”	Made from fatty acids of vegetable oil with the addition of palm stearin and flavorings.

			Certificate of conformity. CT PK ISO 9001-2009
3		Soap LLP "Rainbow" 100 g Manufacturer Kazakhstan TM Economic Care	Sodium salts of fatty acids of animal fats, palm and coconut oils, water, aromatic composition, titanium dioxide, triclosan, EDTA, table salt.
4		Household soap 200 g KHOZMYLSERVICE LLP	Composition: sodium salts of fatty acids of natural fats and oils, with the addition of glycerin, plasticizers, antioxidants and emollients. The product is certified in Kazakhstan
5	Liquid Soap	Liquid soap 5 liters Manufacturer Kazakhstan CRYSTAL "Ameli +"	Composition: Surfactants, humidifiers, preservatives, thickener, colorants and flavoring.
6		Liquid soap 5 liters Manufacturer Kazakhstan Bosstex Group LTD	Composition: demineralized water, a specialized mixture of surfactants, complexing agents. The product is certified
7	Liquid detergents for washing dishes, glass and surfaces	BIOCLINE for washing glasses and mirror surfaces, 750 ml Manufacturer Microchem LLP, Kazakhstan	COMPOSITION: concentrate, solvent, including isopropyl alcohol; surfactant, anionic surfactant, ammonium carbonate, dye, perfume composition, water and other components.
8		Dishwashing detergent canister 5 liters Manufacturer: Kazakhstan Production and Trading Company GREEN CHEMICAL	Composition: Water, anionic surfactant 5-10%, nonionic surfactant less than 5%, alkali less than 0.5%, dye, fragrance auxiliary components
9		Dishwashing detergent Enchantress, manufacturer Kazakhstan, TM Softline, 3 liters	Composition: 7-15% anionic surfactants
10		Dish washing gel with a fruity aroma in the assortment, 1 liter Manufacturer Aurora, Kazakhstan	Anionic surfactants, fragrance, functional additives.

As demonstrated in Table 16, domestic products are not critically different from imported goods, since the same technological regulations are applied for production technology. At the same time, there is a price advantage over imported goods.

The technology of production of household and toilet soap is not much different. For the manufacture of the product, potassium or sodium alkali is used. The aggregate state of the product (*liquid and solid, respectively*) depends on this.

Household soap is the result of saponification of oils with sodium alkali. The bars of household soap are marked in the form of 60-72%. This is the designation of the concentration of fatty acids, i.e. soap

contains 72 or 65% of fatty acids. The higher the content of these substances, the better the washing ability of soap.

Toilet soap has more fragrances and flavors, such as oils and glycerin.

According to the content of detergent (*sodium or potassium salts of fatty, resin and naphthenic acids*), soap is divided into grades:

- solid lumpy household soap is 60, 65, 70 and 72%, liquid-40% (*1st grade*) and 60% (*top grade*);
- powdered soaps are crushed and dried soap (68-82%) or compositions containing 10-25% fatty acids mixed with alkaline salts (*soda ash, trisodium phosphate, sodium silicate*).

By purpose, detergents are divided into household, toilet, special (*medical, technical, etc.*).

Soap production is accompanied by resource costs. It is not only the cost of water and electricity, but also the cost of animal and vegetable fat.

Soap can have a general toxic effect. Product quality standards have been established to control toxicity. The content of toxic elements in soap, which includes raw materials of natural vegetable or natural mineral origin in an amount of more than 1%, should not exceed: arsenic - 5.0 mg / kg; mercury - 1.0 mg / kg; lead - 5.0 mg / kg.

The physical-chemical characteristics of solid soap must comply with the following standards:

Title of a characteristic	The standard for soap
Qualitative number, g, not less than	72 - 74
Mass fraction of free carbon dioxide in terms of Na ₂ O, %, no more	0.15 – 0.22
Solidification temperature of fatty acids isolated from soap (titer), °C	35-44
Mass fraction of sodium chloride, %, no more	0.7

Particles of substances contained in cleaning and detergents accumulate in the body, settle in the lungs, eventually affect the immune system, affect internal organs, lead to oncological diseases. Household chemicals also cause irreparable harm to the environment, since the following substances are used in the production process:

- chlorine (Sodium hypochlorite, Natriumperborat) is extremely dangerous for the skin and mucous membranes, causes diseases of the cardiovascular system, increases the risk of atherosclerosis and cancer;
- anionic surfactants - can provoke an allergic reaction, adversely affect the skin and immunity, and in high concentrations affect the liver, kidneys, lungs, nervous system;
- phosphates and phosphonates (Phosphate, Phosphate, NTA, EDTA, Polycarboxylate) - harm both humans and the environment. They are most often added to washing powders and liquid soap. Therefore, once in the sewer, they pollute the water, and furthermore the soil and reservoirs. For a human, phosphates from cleaning products can lead to excessive degreasing and dehydration of the skin. The use of phosphates in household chemicals is prohibited in different countries, for example, in the USA — in laundry detergents since the 1990s;
- formaldehyde (Formaldehyde) is part of many detergents as a preservative and is the strongest carcinogen (a substance that provokes cancer);
- phthalates (DEHP, DNOP, DIDP) are refined petroleum products, often used in the creation of flavors, once inside a body, they affect the endocrine and reproductive systems of humans;
- phenol and cresol are added to the composition of detergents for the purpose of disinfection and as a preservative. These substances enter the body by inhalation and through the skin, accumulate over time and adversely affect the nervous system and internal organs.

To reduce the harm from cleaning products for the body and the environment, you can use products from brands of eco-friendly household chemicals.

The physical-chemical characteristics of washing products must comply with the following standards:

Title of a characteristic	Characteristics and standard		
	Shampoo	Bath foam, washing gel, liquid soap	Cleaning products
Smell	Characteristic of the color of the products of a specific title		
The hydrogen index pH	5.0-8.5	5.0-8.5	5.0-8.5
Mass fraction of chlorides, %, no more	6.0	6.0	5.0
Notes			
1. Specific inclusions of abrasive and additives are allowed in special purpose washing products in accordance with the manufacturer's recipe.			
2. The norm of the hydrogen pH index for shampoos and liquid soap on a fat basis is allowed no more than 10.0; for shampoos, special-purpose detergent gels and cleaning agents - within 3.5-8.5			

Soap detergents with a high content of chemicals are cheaper on the market. They harm the environment and human health because they have accumulated properties of exposure. Products containing natural ingredients are more expensive at a price, but more environmentally friendly due to the composition. Table 17 and charts 90 and 91 below provide comparative data on the prices of the standard and alternative product.

Table 17. Comparative information on the cost of “soap” and “detergents” products on the domestic and import market (tenge)

Product title	The price of domestic goods, tenge	The price of imported goods, in the equivalent of tenge
Solid soap consisting of animal, vegetable fats and sodium alkali *	150	392
Solid soap containing synthetic surfactants and other synthetic additives	120	180
Liquid soap containing natural oils and nonionic surfactants *	1078	1790
Liquid soap containing formaldehydes, diethanols, triclosans, dioxanes, propylene glycol	540	700
Liquid detergents for washing dishes, glass and surfaces containing nonionic surfactants, 5 l *	1500	1790
Liquid detergents for washing dishes, glass and surfaces containing anionic and cationic surfactants, 5 l	430	810

* these products can be alternative, since the substances contained in their composition are easily soluble, cause less harm to the environment and human health.

Chart 90. Price comparison for “Soap”.

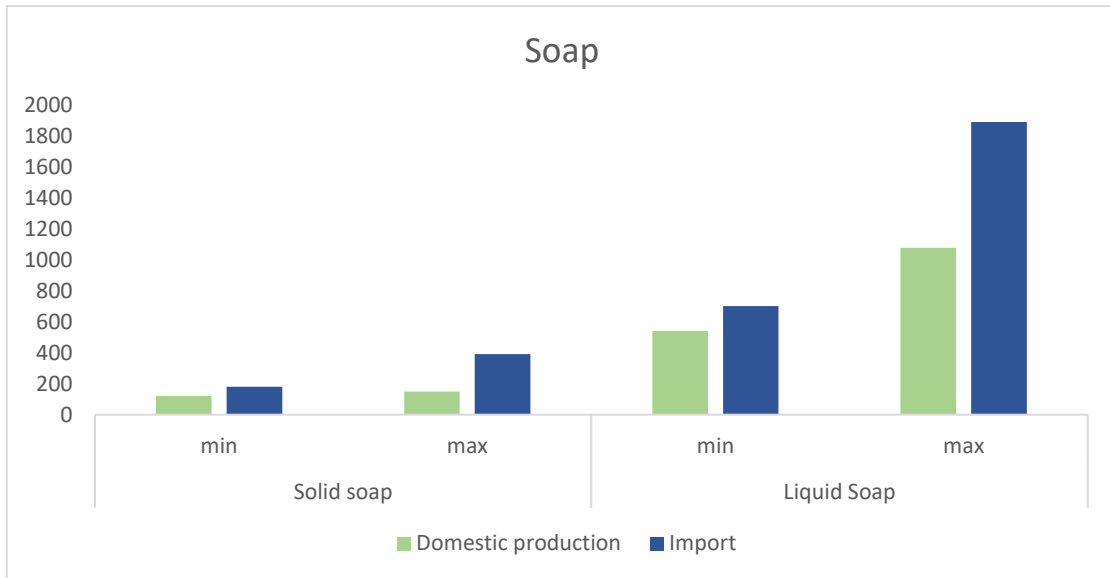
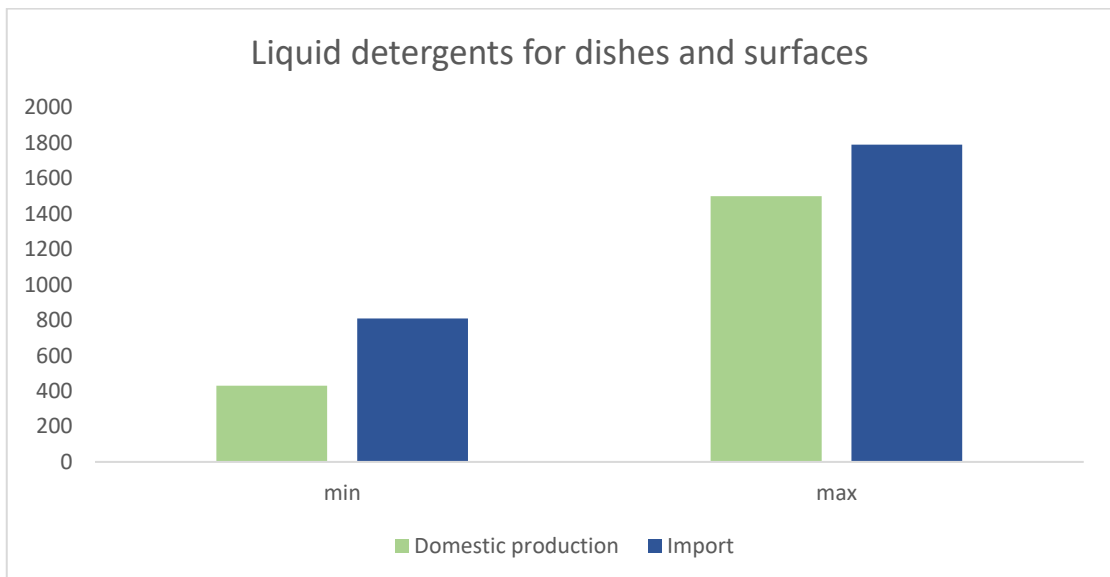


Chart 91. Price comparison for “Liquid detergents for dishes and surfaces”.



6. DISCUSSION OF RESULTS

Taking into account Kazakhstan's policy in the field of ecology and industrialization, the introduction of the SPP has the potential to contribute to improving the environment, saving public funds, developing digitalization, developing local production of more environmentally friendly products, modernizing the provision of services, supporting vulnerable segments of the population, creating new jobs and developing production in the regions of the country. At the same time, it may contribute to a partial or complete solution of pressing issues related to an excessive number of resellers on the market, overpricing, insufficient environmental labeling of goods, not maximizing capacities of local production and an excessive share of imported goods on the market. It is important to note that in the course of the development of the SPP, new opportunities will appear in the country for the establishment of new production facilities and enterprises for auditing and verifying the sustainability of the goods, works and services offered.

For the effective implementation of the SPP in Kazakhstan, it is recommended to identify a number of short-term, medium-term and long-term activities agreed between interested government agencies, representatives of business and civil society. Taking into account the current work in this field, amendments and additions to legislative acts in the field of public procurement are planned in the near future: definitions of “sustainable procurement”, “green” goods, works and services, as well as the development of appropriate Rules / Guidelines for government agencies and suppliers of works, goods and services, taking into account the requirements for their criteria. It is proposed to provide norms regarding the stimulation of increasing the share of “eco-friendly”, “sustainable” public and quasi-public procurement. It is worth noting that within the framework of the Address to the people of Kazakhstan “A just state. One nation. Prosperous Society” (Astana, September 1, 2022), President of the Republic of Kazakhstan K. Tokayev instructed the Government to prioritize the quality of purchased goods. In this connection, the definition of the life cycle cost is included in the technical specifications of public procurement from 2023.

In the medium term, it is proposed to determine the mechanisms of state support for the development of the SPP, taking into account the research carried out within the framework of this project. In particular, it is important to take into account priority goods, because their implementation in the SPP is the most feasible and has a significant potential to reduce the negative impact on the environment.

Given the current readiness of the market, in the long term it is important to pay attention to the development of local environmentally safe production, the market for product conformity assessment, and further improvement of environmental, industrial, entrepreneurial and labor legislation.

During the implementation of the SPP, it is recommended to conduct awareness-raising activities for interested parties. It should be noted that in order to explain to the target sector about the principles of sustainable public procurement, in November 2022, the Sub regional Office for Central Asia of the United Nations Environment Program, together with the Kazakhstan Association of Regional Environmental Initiatives ECOJER held a training seminar on the implementation of SPP. In addition, in 2023, events will be held to inform and explain the principles of UGZ in four regions of Kazakhstan to reach a larger audience.

7. CONCLUSION

An extensive quantitative data on top-10 proposed products demonstrates various procurement trends among the products. Clearly, COVID-19 pandemic significantly affected public procurement by increasing the demand for hygiene related goods, and decreasing for office supplies. Therefore, having a diverse effect on prices of the products.

The analysis demonstrated that, despite the presence of domestic manufacturers, a significant share of public procurement is dependent on imports. There is not a clear correlation that could demonstrate a steady growth of domestic production. In 2021, average of 23.4% of publically procured top-10 products were manufactured within Kazakhstan. As a result, Kazakhstan's public procurement is facing issues of increased prices and local supply security.

Another observed specificity is relatively high number of suppliers and contracting authorities. As significant share of the goods is imported, the supply chain is described by numerous resellers, so-called individual entrepreneurs, who are capable of providing supplying services for wide range of goods, hence, increasing the price for end-consumer.

Section 4 of this report, Market research analyzing the availability of more sustainable options and their prices, provides extensive qualitative and quantitative data on domestic production of goods, including the environmental impact. Most products are consumables and do not require technologically complex production methods. Therefore, they could either be made from recycled raw materials or be recycled. Since some of the products require specific recycling methods, it would be necessary to establish a comprehensive waste management system within the country to promote the introduction of SPP for particular goods.

Nonetheless, some domestic manufacturers already supply the goods made from recycled materials and are relatively ready to demonstrate the sustainability of production at SPP.

The disposable medical mask is made of spunbond. An alternative product may be masks made of cotton fabric. The price of an alternative product is higher than a spunbond product. From the point of view of hygiene, medical work is chosen from disposable spunbond. Manufacturers of disposable masks should pay attention to the collection and disposal of waste products they produce in order to increase their level of sustainability.

On Kazakhstan's market, the paper products are made either from 100% cellulose or from secondary raw materials. The price of a recycled product has an advantage over a product made of cellulose. The price difference is 1.5-2 times.

There is a wide range of soap, detergents and disinfectants on Kazakhstan's market. Alternative products are made using vegetable fat, noniogenic surfactants, without dyes and flavors. The price of such products is higher than for products with active physico-chemical properties.

Water-dispersion paints are presented to the market of Kazakhstan by both domestic and foreign manufacturers. Paints with the least toxic effects have an advantage. The price for them is 1.5 - 2 times higher than for ordinary paints.

The toner cartridge consists of plastic, and the carbon dioxide is released into the environment at the production stage. As an alternative product, it is necessary to consider production of restored cartridges. It allows saving from 15% to 50% of costs. The method of restoring original cartridges is used in the market of Kazakhstan.

The introduction of SPP could stimulate eligible domestic manufacturers by increasing their production, improving stability of the demand, and promoting environmental methods of manufacturing. In addition, it would contribute to closing the gap between the manufacturer and the contracting authority, resulting in elimination of resellers in the supply chain, which would decrease the end price and consequently the expenses of the state budget.

The analysis of the goods purchased during public tenders, their characteristics and possible impact on the environment demonstrated that the following goods can potentially be the most sustainable:

- Alcohol-based disinfectant;
- Soap (household and toilet solid, toilet liquid);
- Punched pockets for documents, with and without perforation, made of polypropylene film.

However, the above-mentioned goods were excluded from a list of prioritized products, due to the expected decrease in demand for them (Section 2.4).

However, the categories “Alcohol-based disinfectants” and “Punched pockets for documents, with and without perforation, made of polypropylene film” were excluded from priority products list due to the expected decrease in demand for them (Chapter 2.4). In addition, the study also excluded fuel and energy products, due to the high carbon footprint of fuels available on the market and the high carbon intensity of the economy of Kazakhstan as a whole; IT services, because the study does not consider the purchase of services, while IT goods are usually purchased as services through intermediaries.

Consideration of additional categories of goods led to the selection of priority products with the definition of appropriate environmental criteria:

1. Liquid and solid soap.
2. Paper hygiene products (toilet paper, napkin and paper towel).
3. Detergents for surfaces.

Prioritized product	Environmental criteria
Liquid and solid soap	The use of fatty acids of vegetable oil and noniogenic surfactants (for liquid soap) at the stage of production
Paper hygiene products	The use of waste paper as raw materials
Detergents for surfaces	The use of biodegradable components (mixtures of anionic, nonionic and ampholytic surfactants)

These products are the most optimal for the introduction of SPP in Kazakhstan. All products have more sustainable alternatives on the market based on the proposed criteria. In addition, charts 89-91 demonstrate a comparative analysis of prices, taking into account the export/import of traditional/alternative goods.

It is proposed to consider the use of secondary raw materials in the production of paper products and noniogenic surfactants, vegetable fat in the production of liquid detergents and soap products, as criteria for environmental friendliness.

Herewith, the selected sustainability criteria are: share of local production and environmental friendliness. The criteria are selected based on environmental and economic considerations. It is important to note that a large proportion of public procurement goods are imported from CIS and neighboring countries, resulting in increased purchase price. In this connection, it is proposed to introduce an obligatory criterion “share of local production” for the SPP products list, in order to support domestic producers.

Kazakhstan's producers do not use the production capacity to the full and the volume of production depends on the volume of demand. If goods of domestic production are purchased within the framework of the SPP from the manufacturer (i.e. excluding intermediaries from the supply chain), production volumes will accordingly increase by the volume of purchases. Thus, stimulating improvements in the quality of goods, increasing the environmental component and sustainability in general.

ANNEXES

ANNEX 1. Most purchased goods 2016-2021 (depending on volume of purchase)

No	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Electricity	109 332 407	301 079 946 065	300 169 612 417	1 058	83
2	Textbooks	2 382 503	17 585 507 233	6 399 903 888	816	363
3	Gasoline	141 717 654	15 826 044 263	9 597 964 121	9 059	522
4	Diesel summer fuel	102 509 916	10 054 094 973	7 484 934 899	1 650	394
5	Electricity	297 077 365	7 018 076 558	4 488 301 298	2 064	127
6	Jet fuel	24 994	4 670 035 749	79 714 209	4	2
7	Diesel winter fuel	40 346 342	4 499 738 211	3 077 615 909	1 159	360
8	Software	965	3 969 235 984	3 883 386 000	106	87
9	Natural gas	1 357 000	3 946 776 920	3 842 675 347	125	3
10	Coal	898 575	3 364 867 600	1 628 792 357	119	53
No	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Gasoline	164 426 591	29 132 093 469	25 357 229 498	9 307	529
2	Textbooks	3 336 071	21 159 740 287	19 857 513 524	911	558
3	Electricity	1 654 320 724	17 606 219 182	16 738 671 661	1 059	80
4	Fuel	119 408 295	14 977 972 750	12 310 536 184	1 734	430
5	Electricity	682 437 877	14 462 890 555	11 432 505 483	2 492	107
6	Car	63	11 466 237 446	10 518 757 320	9	7

7	Electricity	475 762 473	10 780 586 836	6 777 132 394	324	51
8	Heat energy	55 305 826	9 838 577 113	7 916 821 093	735	155
9	Coal	870 437 462	9 229 811 011	2 795 915 270	1 348	85
10	Bus	110	8 881 988 393	7 013 515 178	1	1
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Book	12 719 892	24 111 663 249	17 259 774 186	583	372
2	Gasoline	163 523 433	23 795 512 760	14 618 908 258	9 060	463
3	Fuel	116 847 090	17 918 389 927	12 475 161 684	1 436	355
4	Electricity	1 126 398 103	15 713 678 474	8 880 079 857	2 397	93
5	Heat energy	6 801 121	13 066 693 508	10 978 756 365	887	133
6	Winter fuel	43 043	10 780 060 671	9 598 990 991	7	3
7	Coal	550 335 397	9 724 253 629	8 656 116 689	2 026	106
8	Books	1 064 558	7 097 471 775	4 709 144 237	267	221
9	Gas	44 386 259	6 742 472 579	2 612 581 379	427	187
10	Beef	5 030 733	6 143 151 087	4 968 484 206	887	626
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Book	50 056 969	41 934 932 978	23 405 349 493	1 741	1 060
2	Gasoline	187 654 396	26 189 813 912	10 838 778 345	9 870	474
3	Diesel fuel	118 887 170	24 384 942 051	11 173 143 158	1 847	388
4	Building	49 380	22 094 398 374	5 174 686 138	93	764
5	Electricity	920 400 270	17 863 225 305	13 801 333 244	4 267	122

6	Coal	953 976 101	16 906 690 658	13 952 817 244	3 373	107
7	Diesel summer fuel	41 365 794	14 807 101 539	4 652 238 415	1 249	346
8	Diesel winter fuel	53 409 281	12 108 831 225	4 431 732 651	768	274
9	Heat energy	5 100 456	12 017 911 477	10 593 425 496	1 032	157
10	Bus	203	11 273 194 286	11 243 380 648	3	3
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Laptop	656 825	59 893 472 368	57 816 780 632	1 683	1 030
2	Medical module	239	40 240 989 407	445 028 754	13	11
3	Book	1 791 327	32 713 365 285	10 904 485 431	1 157	634
4	Computer	657 769	26 990 569 523	22 476 784 314	3 698	1 420
5	Gasoline	182 520 690	25 957 413 792	7 911 955 353	9 584	420
6	Diesel fuel	108 214 421	21 623 226 623	8 547 930 485	1 704	335
7	Electricity	1 049 285 951	19 649 725 641	15 428 038 734	4 370	103
8	Artificial lung ventilation device	1 863	16 794 849 214	15 252 347 026	61	27
9	Apartment	6 366	16 692 512 596	9 550 370 971	5	5
10	Coal	819 735 432	15 941 753 576	12 392 856 009	3 366	78
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Medical module	243	44 710 097 203	1 497 040 134	12	10

2	Natural gas	23 627 266	40 632 558 645	40 529 290 194	1 463	38
3	Book	976 626	32 574 420 164	27 247 460 550	990	559
4	Gasoline	188 986 365	31 974 550 123	22 247 263 999	9 205	408
5	Electricity	1 234 008 519	29 176 899 894	28 522 579 581	3 965	83
6	Diesel fuel	136 148 435	28 017 699 768	18 778 065 124	1 704	322
7	Coal	1 078 871 614	25 883 496 998	24 323 183 665	4 219	69
8	Study room	2 679	19 572 949 131	19 386 820 617	862	261
9	Apartment	794	12 852 485 917	9 052 561 579	18	123
10	Heat energy	94 369 198	12 669 646 087	12 033 716 314	1 078	78

ANNEX 2. Most purchased goods 2016-2021 (depending on the volume of purchases, the number of Customers and Suppliers).

№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Mask	1 478 443	24 806 680	17 721 500	1 816	472
2	Paper	495 767	88 800 707	56 354 097	927	685
3	Cardboard folder	1 464 984	71 504 170	42 868 153	3 724	1 672
4	Punched pockets	3 478 487	43 286 610	32 447 641	3 094	1 366
5	Soap	218 742	47 715 373	36 304 475	138	119
6	Notebook	283 527	51 292 617	35 004 070	2 792	1 396
7	Paint	36 762	10 448 178	5 422 519	172	170
8	Disinfectant	116 740	98 949 674	19 930 950	439	385
9	Detergent	330 039	109 151 370	74 800 116	1 673	1 196
10	Cartridge	325 063	1 264 949 247	1 005 451 726	5 002	2 319
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Mask	518	11 490	9 090	8	8
2	Paper	505	202 100	202 100	7	7
3	Cardboard folder	1 720	82 031	82 031	9	9
4	Punched pockets	34 053	250 063	250 063	8	9
5	Soap	140	140 000	140 000	1	1
6	Notebook	278	48 841	48 841	6	7
7	Paint	2	3 350	3 350	2	2
8	Disinfectant	1 514	251 300	251 300	7	7
9	Detergent	681	258 277	258 277	7	7
10	Cartridge	815	6 041 831	6 041 831	26	34
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Mask	79 429	2 293 938	2 007 513	224	146
2	Paper	602 491	68 521 564	65 813 713	1 318	1 032

3	Cardboard folder	753 959	68 746 660	65 474 052	2 726	1 305
4	Punched pockets	815 985	28 664 722	27 502 977	1 248	679
5	Soap	509 117	75 429 264	70 574 245	1 532	1 142
6	Notebook	375 417	11 027 253	10 549 854	812	493
7	Paint	42 517	27 272 359	26 854 804	492	460
8	Disinfectant	108 462	43 943 974	36 406 177	692	559
9	Detergent	109 452	48 570 915	45 907 418	1 188	916
10	Cartridge	75 019	195 888 195	193 313 333	2 167	1 293
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Mask	685 286	11 551 569	10 828 886	803	327
2	Paper	6 697 745	894 385 730	753 112 683	10 235	3 405
3	Cardboard folder	5 621 302	453 135 868	422 085 853	4 834	3 795
4	Punched pockets	6 353 158	193 900 682	185 292 537	5 381	2 489
5	Soap	5 765 552	895 128 969	830 987 315	6 632	3 926
6	Notebook	2 620 711	74 459 752	69 468 376	3 291	1 601
7	Paint	519 245	269 232 728	245 690 610	2 206	1 697
8	Disinfectant	1 254 250	730 945 717	414 859 792	2 629	1 847
9	Detergent	935 831	418 609 330	392 212 042	4 403	2 889
10	Cartridge	384 022	1 515 504 102	1 457 047 700	5 879	2 807
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Mask	60 015 759	3 348 983 355	2 208 799 084	9 500	2 183
2	Paper	7 036 713	1 061 231 510	636 798 786	4 573	2 710
3	Cardboard folder	4 530 911	343 906 244	261 876 060	2 426	1 242
4	Punched pockets	4 952 555	155 295 459	126 370 771	4 706	1 828
5	Soap	5 435 754	1 005 678 541	730 328 255	6 141	3 116
6	Notebook	3 139 299	72 763 433	53 264 135	2 833	1 225
7	Paint	546 546	250 550 787	186 557 030	1 365	961

8	Disinfectant	8 175 302	10 801 011 762	5 101 424 155	3 862	2 394
9	Detergent	804 967	374 974 828	298 593 058	3 713	2 106
10	Cartridge	282 701	1 476 688 789	949 434 471	4 140	1 911
№	Title of the GWS	Volume of purchase, units	Purchase value, ₺	Import, ₺	Contracting authorities	Suppliers
1	Mask	40 595 437	523 280 661	431 746 430	2 736	871
2	Paper	8 311 280	1 042 302 067	806 172 966	4 660	2 333
3	Cardboard folder	4 661 593	306 823 944	268 443 482	8 183	2 298
4	Punched pockets	5 275 488	150 450 744	134 924 264	4 693	1 579
5	Soap	5 723 700	917 057 153	790 137 627	6 157	2 298
6	Notebook	2 664 719	310 618 526	165 685 712	2 610	1 104
7	Paint	1 718 985	559 302 930	455 484 288	3 134	1 530
8	Disinfectant	3 758 915	4 129 108 522	3 179 684 242	12 350	1 361
9	Detergent	814 193	324 126 548	286 408 438	3 496	1 684
10	Cartridge	225 568	1 547 349 063	1 092 420 841	2 723	1 110