



Uzbek State Joint Stock Concern of
Pharmaceutical Industry
UZPHARMSANOAT



UZINFOINVEST



Uzbekistan

INVESTMENT GUIDE TO THE PHARMACEUTICAL INDUSTRY UZBEKISTAN

TASHKENT – 2011

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Uzbekistan

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1. GENERAL BACKGROUND

Pharmaceutical industry is a development priority of ever increasing significance in Uzbekistan.

The Center for Economic Research conducted analysis of the development of pharmaceutical industry, which indicated that Uzbekistan has certain comparative advantages, which may be envisaged in the medium-term and long-term development strategy of the pharmaceutical industry. The competitive advantages of the domestic pharmaceutical industry, which concurrently requires development assistance, are as follows:

- Availability of research base and domestic experience of manufacturing substances and medications;
- Existence of research institutions involved in development of medical drugs, chemistry, genetics, etc., the efforts, which require major coordination, development base of clinical testing, and reinforcement of international cooperation;
- Availability of research staff, capable of research work for development of new medical drugs as well as human resources training system, which could also be involved in research efforts;
- Relatively low cost of development of new medications because of low costs, compared to developed countries, main factors of their production.
- Rich natural plant world of Uzbekistan: 138 families, 1023 genera, and 4,500 species, of which 1,150 species are considered to be medicinal plants. Officially more than 100 medicinal plant species are included in the Pharmacopea, which enables to produce original medications and biologically active additives using local raw materials;
- Opportunities for coordinated management of research, health system, regulating operations of pharmaceutical companies.

There are prospects of development of pharmaceutical industry as an important innovative dimension of Uzbek economy.

Development of pharmaceutical industry enables Uzbekistan to address a number of vital social objectives related to public health.

The country features high natural demographic growth rates, which total 1-1.5% per annum according to the projections. Approximately 615,000 newborns are expected annually in the next five years, whereas, 607,800 are expected annually in 2015-2020, and 596,700 annually in 2020-2025. Also absolute growth of the number of the elderly is expected thanks to the improvement of health services and better living standards. These factors lead to higher demand for medications essential for treatment of pediatric diseases, mandatory vaccination of newborns and children, and treatment of diseases typical for the elderly – cardiovascular, oncological, and neurological diseases.

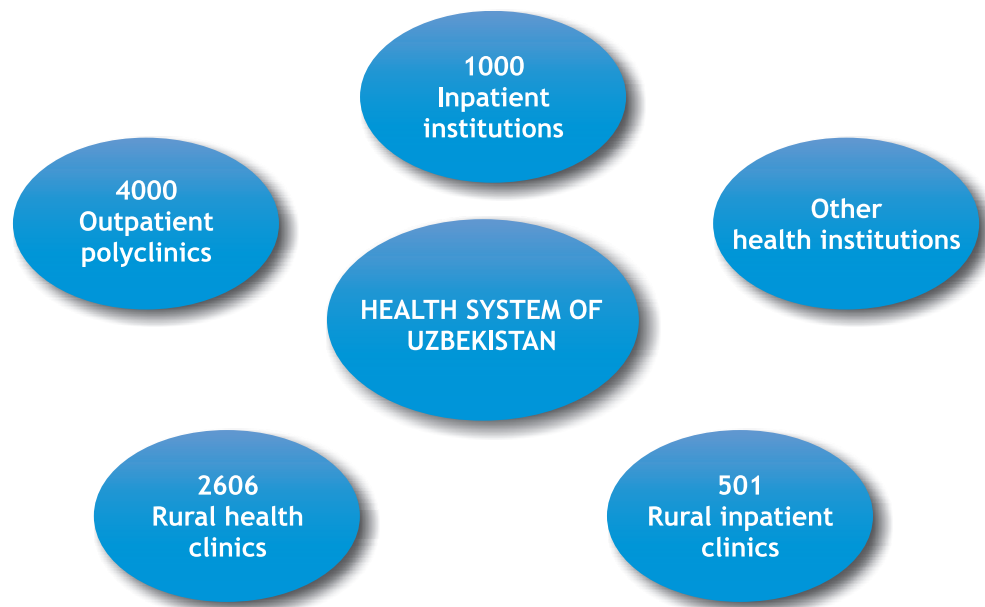
Today the pharmaceutical market of Uzbekistan totals approximately USD 500 million and features quite high growth rates, approximately 10% per annum. Along with aforementioned demographic factors, improving



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public welfare and changes in the preferences, further sustainable development of the sector is expected. Provided that domestic demand grows 10-15 percent annually, the market may exceed **USD 1 billion** in near-est years.

Notably the priorities of the Government of Uzbekistan, focused on comprehensive modernization of health system, the main consumer of the market of medical drugs and health products unveil new opportunities for investing into this sector.



Today over 1,000 inpatient health institutions, 4,000 polyclinics and outpatient institutions, 501 rural outpatient posts, 2,606 rural health clinics (RHC) and other health institutions are providing qualified public health services.

Thus, along with demographic growth, longer life expectancy, and increasing aging of population, and advancement of public health system, inter alia, thanks to the growth of health institutions, the need for medical drugs is increasing. Thus, the pharmaceutical sector has major development prospects.

1.1. THE STRATEGY AND PRIMARY DEVELOPMENT OBJECTIVES OF DOMESTIC PHARMACEUTICAL INDUSTRY IN 2010-2015

Amid new trends of modern division of global market of pharmaceutical products, many developing countries have formulated or are formulating medium-term and long-term development strategy of pharmaceuti-

cal industry. Not coincidentally this sector was noticed by the rapidly developing countries such as India and China, which have been taking over pharmaceutical markets lately, not only in the domestic markets but also in many advanced countries, outcompeting even the most well-known pharmaceutical companies, particularly, in the production of generics.

The pharmaceutical sector of Uzbekistan has set the goal for nearest future – [provision of modern highly-effective medical drugs to the households and health institutions](#), which must be implemented based on sectoral development strategy.

1. Technological modernization of the pharmaceutical sector of Uzbekistan by setting up production of innovative medical drugs;
2. Protection of the domestic market from unfair competition and providing equal market access for domestic and foreign manufacturers;
3. Improvement of quality control of medical drugs including actions to remove redundant administrative barriers in the registration of domestically manufactured drugs;
4. Training the highly-skilled workers for development and production of pharmaceutical products according to the international standards.

The development strategy of the pharmaceutical industry envisages that following objectives are met:

[Objective One](#) – promoting national medical drug security. Its key aspect is guaranteed production of a number of drugs starting with substances and ending with finished medical drugs;

[Objective Two](#) – increasing the share of quality domestic medications. To this end, investments for implementation of specific manufacturing projects are being promoted;

[Objective Three](#) – promoting innovative domestic drugs with patented active substance into the market.

Development and implementation of domestic innovations will enable to increase the share of domestic producers up to 45-50% of domestic market and tenfold increase in the output of pharmaceutical products. For these purposes, improvement of its organizational structure will be reviewed [at the first stage](#).

- Improved interaction of all stakeholder institutions interested in development of pharmaceutical sector for achievement of the ultimate goal – increasing the output of quality substances and finished medications for supply to the domestic and external markets;
- Improved effectiveness of the operation and capacity-building for further development of each institution related to the production of pharmaceutical drugs.

[At the second stage](#), proposals will be formulated on active investments into production of substances and generics primarily from domestic substances, test products, and auxiliary products – vials, packaging, etc. in line with the international standards(GMP) in the next 3-5 years.

At this stage of investments into domestic production, the list of substances for those medications, which are high on demand both in domestic and external markets, sell well and can enable pharmaceutical companies to accumulate sufficient profits required for investment and subsequently, for innovative development. These medical drugs include, in light of domestic demand:

- Vaccines, anti-viral drugs, and antibiotics (anti-influenza, vaccines for newborns and breastfed ba-

bies, vaccinations against widespread infections amid hot climate – hepatitis, miscellaneous viral intestinal infections, TB, etc.)

- Medical drugs procured by domestic health institutions in large quantities, primarily biotechnological production of genetically engineered medical products (insulin, interferon, etc.)
- Medical drugs, vegetative and synthetic substances for their production including 50 based on retail sales;
- Most frequently used diagnostic sets and test systems (HIV/AIDS, hepatitis, etc.)
- Iron-containing substances, iodine substances, drugs for treatment of renal and urogenital system diseases, endocrinological diseases, i.e. diseases common in Uzbekistan due to the adverse environmental and climatic conditions;
- Original preparations of Uzbek scientists;
- Vitamins, biologically active substances, medical drugs based on plant and animal materials, minerals available in the country as input materials;
- Blood products.



Dentafill Plus private enterprise

At the same time, additional financial, institutional, and staff support will be rendered to the domestic developers of original drugs to start manufacturing the original medical drugs that they had developed and expand their sales in domestic and external markets.

The criteria for positive development of the sector at this stage will be accumulation of adequate capital of pharmaceutical companies for subsequent rapid innovative development and substantial enhancement of material and research base for R&D and production of medical drugs.

In order to launch the [third stage](#) – the innovative cycle, the pharmaceutical sector needs to attract large-scale investments, thus, the mechanisms of accumulation of funds will be created in advance.

Innovative stage envisages increased investments not only for production of generics from domestic substances. Manufacturing of original medical drugs is planned jointly with foreign investors. So far domestic scientists have already created the large number of new domestic medical drugs, which have gone through pre-clinical testing, and need urgent financing to undergo clinical testing. More than 50 promising bioactive chemical compounds (molecules) are in the stages of completion of experiments.

For implementation of aforementioned objectives, radical change in the approach to the domestic development of new substances, medical drugs, and diagnostic sets is envisaged in order to support:

- conducting research to develop new medical drugs with broad research base by concurrently engaging experts in medicine, pharmacology, chemistry, chemical technology, biology, biochemistry, biophysics, genetics, gerontology, innovative technologies;
- creation of experimental and commercial-grade GMP substances – technologies for new improved medical drugs and generics;
- organization of clinical tests of new and improved medical drugs jointly with health institutions and pharmaceutical producers. This requires the review of clinical testing scheme and inclusion of treatment standard in the stages of development.

1.2. UZFARMSANOAT STATE JOINT-STOCK CONCERN

Uzfarm sanoat State Joint-stock Concern, established in June 1993 based on the Decree of the President of Uzbekistan, is the lead industrial association of pharmaceutical companies. The sector has a large developed research and human capacity, supporting training of required chemists and technologists, biotechnologists, engineers, and pharmacists.

There are 8 research institutions (Tashkent Research Institute of Vaccines and Sera, Uzbek Chemical and Pharmaceutical Research Institute, Institute of Chemistry of Vegetable Substance, Institute of Bioorganic Chemistry, Institute of Chemistry and Physics of Polymers, Botanika R&D Center, Oriental Medicine Research Institute, Vaksina NPO), with 797 staff, of which 75 are doctors of sciences, 207 are candidates for doctors of sciences. There is Tashkent Pharmaceutical Institute, which annually trains more than 200 pharmacists and industrial pharmacia experts. There are medical drug and industrial pharmaceutical units at 51 medical colleges, which annually train more than 2000 mid-level health workers.

In the last decade the investments into the pharmaceutical sector exceeded **USD 130.0 million**, of which USD 68.9 million are **foreign direct investments**.

Foreign partners account for 69% of the capital of the pharmaceutical companies, and local partners account for 31%.

Domestic production only meets the 100% market demand for liquid drugs and bandaging materials. Demand for pills, injection and infusion solutions, ointments, antibiotics, immunobiological substance are met in the range of 20-60%.

Annual demand of domestic market for medications exceeds **USD 420 million**, of which national output is more than **USD 80 million**, while remaining drugs are imported, of which USD 40 million come from CIS countries.

Currently Uzfarm sanoat unites 70 pharmaceutical companies or 60% of all companies in the sector. The concern includes research institutions and associations, manufacturing companies of all ownership forms, including joint ventures with foreign investments, joint-stock companies with majority share of private investments. Most products (76%) are produced by companies under Uzfarm sanoat SJSC.

The Concern focused on promoting the development of the sector and its modernization, technical and technological upgrading, implementation of innovative and applied products into manufacturing.

**List of Companies within Uzfarm sanoat SJSC
(as of April 20, 2011)**

Nº	Company	Activities
1. Research Institutions		
1	Tashkent Research Institute of Vaccines and Sera	Research, development, and innovations
2	Uzbek Chemical and Pharmaceutical Research Institute named after Sultanov	Research, development, and innovations
3	Oriental Medicine Research Institute	Research, development, and innovations
4	Vaktsina NPO	Research, development, and innovations
2. Production of medical drugs		
5	AMALIY MED FARM LLC	Production of medical drugs
6	GUFIC AVICENNA JV LLC	Production of medical drugs
7	DENTAFILL PLUS private enterprise	Production of medical drugs
8	GALENICA LLC	Production galenical
9	IMMUNOMED Private enterprise	Production of medical drugs
10	INVEST MED PHARM PLYUS LLC	Production of medical drugs
11	JURABEK LABORATORIES JV LLC	Production of medical drugs
12	MAKROFARM-OPTIMA LLC	Production of medical drugs
13	NIKA PHARM DkHo	Production of medical drugs
14	NOBELPHARMSANOAT Foreign enterprise	Production of medical drugs
15	NOVA PHARM LLC	Production of medical drugs
16	NOVOPHARMA PLUS JV LLC	Production of injected medicines and dry powdered antibiotics
17	RADIKS Chnnp	Production of medical drugs
18	REKA MED PHARM JV LLC	Production of infusion solutions
19	REMEDY JV LLC	Production of medical drugs
20	REMEDY GROUP JV LLC	Production of medical drugs
21	SAMO MP	Production of medical drugs
22	TASHFARM A.I. LLC	Production of medical drugs
23	TEXNOFARM LLC	Production of infusion solutions
24	ZIYO NUR FARM Private enterprise	Production of medical drugs
25	O'ZKIMYOFARM OJSC	Production of medical drugs
26	NPAF FarGALS LLC	Production of medical drugs
27	SALUBRIS VITA JV LLC	Production of medical drugs
28	SAMSUN-TOSHKENT PHARM LTD JV LLC	Production of medical drugs



Galenika LLC

Nº	Company	Activities
29	MERRYMED FARM JV LLC	Production of medical drugs
30	PLAST PHARM MEDICAL LLC	Production of medical drugs
31	PRESS SYA LLC	Production of medical substances
32	CODEPHARM Foreign enterprise LLC	Production of medical drugs
33	HANSANG PHARM JV LLC	Production of medical drugs
34	UZGERMEDPHARM LLC	Production of medical drugs
35	INNEKMED FARM LLC	Production of medical drugs
36	LAFZ LLC	Production of medical drugs
3. Production of vaccines, sera, biologically active additives, and diagnostic medicines		
37	ARMENIA LLC	Production of probiotics
38	BIBINOR ChNPF	Production diagnostic medicines
39	FITO OLAM Private enterprise	Production of biologically active additives
40	OMNINVEST ASIA Foreign enterprise LLC	Production of vaccines, sera, biologically active additives
41	UZBIOPHARM LLC	Production of immunobiological drugs
42	STEVIAINTERPHARM LLC	Production of biologically active additives
4. Production of bandaging materials		
43	ELASTIKUM LLC	Production health products
44	GULISTONFARMTEKS LLC	Production of bandaging materials
45	BAXTTEKS-FARM LLC	Production of bandaging materials and health products
46	TEXNOTSELL HTPI LLC	Production of medical drugs and health products
5. Growing, Collection, and Packaging of Medicinal Plants		
47	BEK APNK	Cultivating medicinal plants
48	DORIVOR O'SIMLIKAR LLC	Cultivating medicinal plants
49	KEGEYLI BOYAN LLC	Production of glycerin acid from licorice root
50	NO'KIS LAKRITSA LLC	Collection and packaging of medicinal plants
51	SO'QOQ MALXAMI Private enterprise	Cultivating medicinal plants
52	TSITO-FARM LLC	Cultivating, harvesting and and processing plant products
53	ZAMONA RANO LLC	Production of herbal teas
6. Production of Utensils		
54	NASA Private enterprise	Production of plastic items
55	TB FARM PLAST LLC	Production of plastic ware
56	TUBEX LLC	Production of laminant tubes for packaging pharmaceutical products and cosmetics



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Nº	Company	Activities
57	AGRO PLAST POLIMER LLC	Production of plastic ware
58	RAHIM FARM GROUP Private enterprise	Production of plastic corks and aluminum lids
7. Production of other products		
59	AGRO BIO KIMYO LLC	Production of disinfectants
60	AKS DREAM LLC	Production of personal hygiene items and plastic ware
61	ASIA TRADE JV LLC	Production of disposable syringes
62	AVIKON MED LLC	Production of diagnostic equipment and wholesale trade of laboratory equipment and chemical reagents
63	EKOPLAST SYSTEMS JV LLC	Production of disposable syringes
64	GULI KAND BIO LLC	Production of disinfectants
66	MTEGRA LLC	Production of disposable diapers
67	HIMLABPRIBOR LLC	Production of medical drugs
68	AND OIL NEFT LLC	Production of infusion solutions
69	ORTOPEDIYA-INDUSTRIYA LLC	Production of health products and medical equipment
8. Wholesale Trade of Pharmaceutical Products		
70	ALIAS PHARMA DP	Wholesale trade of medical drugs and health products

The mechanism of cooperation of specialized institutions of the Academy of Sciences and the Ministry of Health with the pharmaceutical companies is being developed. To this end, Uzfarm sanoat SJSC is co-financing innovative projects to set up new technologies for production of medical drugs. Serial production of 35 medical drugs has been organized based on mutual cooperation at the experimental bases of academic and sectoral institutions in the last 3 years.

The companies under the Concern manufacture **18 types and forms** of medical drugs and products: vials, pills, capsules, solutions, drops, tinctures, extracts, ointments, liniments, infusion solutions, medical drugs, bacterial and diagnostic preparations, vaccines, sera, bandages, cotton wool, etc.

70 pharmacotherapeutic groups of drugs are being manufactured including cardiovascular drugs, vitamins, biostimulators, analgetics, anesthetics, antibiotics, TB drugs, anticeptics, anti-parasitic drugs, diagnostic preparations, vaccines, sera, bactericides, and other substances.

Domestic research potential is currently focused on R&D into prevention and treatment of socially significant diseases (HIV, diabetes, cancer) and wide range of cardiovascular, gastrointestinal, and other mass demand drugs, e.g. influenza. The companies of different ownership forms manufacturing medical drugs account for more than 35% of the concern. More than 90% of concern's companies are located in Tashkent city and Tashkent oblast.

Joint use of existing social and production infrastructure of Uzfarm sanoat SJSC and research potential of the institutions enables effective use of capacity, preventing the cost of creation of new manufacturing facilities, and expansion of the range of products using local inputs, enabling to expand export capacity of the country.

To this end, the concern is actively making business and research contracts to develop and start manufacturing new competitive medical drugs. Close collaboration is underway with the Academy of Sciences, Uzki-myosanoat SJSC, Ministry of Health, specialized departments of the Ministry of Higher and Secondary Special Education to start the production of medical drugs and introduction of new original drugs. It is planned to organize production of 44 medical substances at the experimental bases of research institutions for production of finished medical drugs including 26 original drugs.

**Projected Indicators of the Implementation of the Programme of Modernization,
Technological Re-tooling of Pharmaceutical Companies of Uzbekistan**

№	Indicator	Unit of Measurement	Years		Growth rate against 2010, %
			2010	2011	
1.	TOTAL, production of medical drugs	mln. soums	126 400	140 800	111.4
	<i>Including exports</i>	<i>USD ,000</i>	<i>20 500</i>	<i>23 200</i>	<i>113.2</i>
2.	Ratio of utilization of manufacturing capacity	%	87,4	91,3	104.5
3.	Rate of return	%	20,8	20,9	100.5
4.	Number of new medical drugs	units	116	142	122.4
5.	New drug substances	units	42	44	104.8
6.	Number of companies with plans for modernization of operations	units	6	6	100.0
7.	Number of companies, where ISO-9001 quality management system has been implemented	units	8	12	150,0
8.	Total investments for modernization of companies	USD ,000	1 600	7 185	4.5-fold
	<i>a) Improving the quality of medical drugs</i>		<i>350</i>	<i>3 865</i>	
	<i>b) Improving the quality of suture materials</i>			<i>300</i>	
	<i>c) Start production of injected medicines</i>		<i>250</i>		
	<i>d) Increased production of immune boosting and tableted drugs</i>		<i>980</i>		
	<i>e) Increased production of gauze and disposable syringes</i>		<i>20</i>	<i>3 020</i>	



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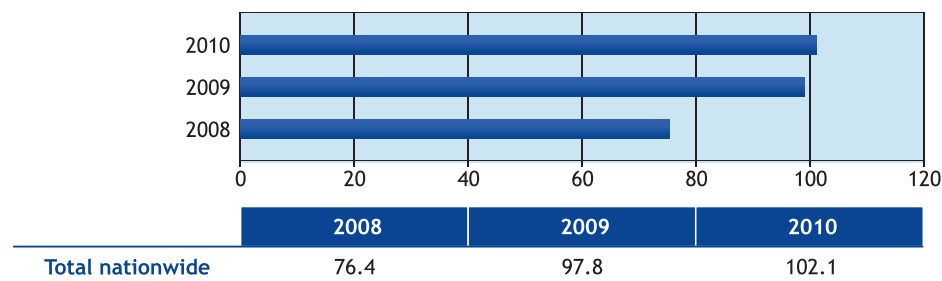
2. MAIN DEVELOPMENT INDICES OF PHARMACEUTICAL INDUSTRY

2.1. MANUFACTURING OPERATIONS OF PHARMACEUTICAL SECTOR GROWTH IN THE OUTPUT OF PHARMACEUTICAL PRODUCTS IN UPCOMING YEARS

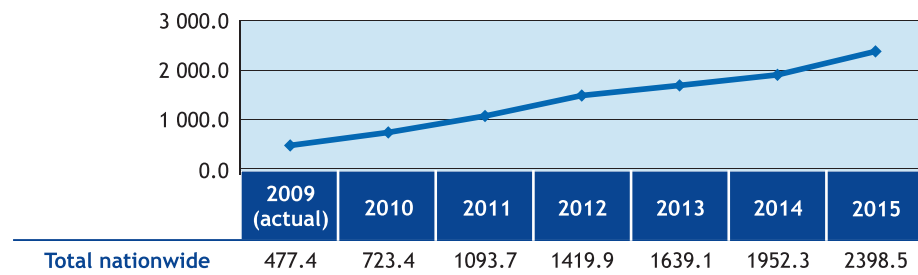
By the end of 2009, 477,400,000 units of medical drugs and health products for total amount of 98 billion soums were produced in Uzbekistan, of which Uzfarm sanoat SJSK companies produced 140.11 million units for total amount of 82.48 billion soums.

Output of medical drugs and health products totaled 102.1 billion soums in 2010, facilitating 104.4% growth. Medical drugs in the amount of 92.9 billion soums, bandaging materlas worth 2.4 billion soums, auxiliary materials (vials and laminated tubes) – 4.8 billion soums and other products worth 1.92 billion soums were produced enabling the growth in the share of medical drugs up to 91% in 2010.

Manufacturing Output of Pharmaceutical Industry (billion soums)



Projected Growth in Production of Medical Drugs (million units)



Of total output of product, 35.14% were manufactured by companies under the Uzfarm sanoat SJSC, and value-wise the products manufactured and sold by Uzfarm sanoat SJSC account for 58% of the output. Considering average annual growth rates (140-160% per annum), this indicator is projected to grow up to 76% by 2015.



**Output of Uzfarm sanoat companies
January-December 2010**

Company and Product	Unit of Measurement	January-December 2010			Respective period of 2009	Growth rate, %
		Projection	Actual	%		
Total, Uzfarm sanoat SJSC	,000 units	213679.6	243049.5	113.7	140116.3	173.5
<i>Finished medical drugs :</i>		184022.6	167779.2	91.2	107314.1	156.3
products in ampoules	,000 packs	19323.0	11729.2	60.7	9978.7	117.5
tableted forms	,000 packs	38078.8	46119.9	121.1	27442.0	168.1
liquid medicines	,000 vials	36640.0	34410.7	93.9	22960.0	149.9
ointments	,000 vials	8756.0	9323.3	106.5	4146.1	224.9
vaccines and sera	,000 packs	2.9	5.1	175.9	10.0	51.0
dry powdered antibiotics	,000 vials	57975.0	47846.4	82.5	33500.9	142.8
capsuled forms	,000 packs.	2855.4	2719.9	95.3	1419.0	191.7
infusion solutions	,000 vials	18765.5	13663.0	72.8	6942.9	196.8
suspensions	,000 packs	724.0	878.0	121.3	44.1	1991.0
powders	,000 packs	60.0	38.0	63.3	48.7	78.0
biologically active additives	,000 packs	252.0	282.2	112.0	351.0	80.4
herbal teas	,000 packs	590.0	763.5	129.4	470.7	162.2
<i>Health products and medical items :</i>		5519.0	6290.9	114.0	1814.2	346.8
Disinfectants	,000 liters	15.0	12.8	85.3	1.2	1066.7

Company and Product	Unit of Measurement	January-December 2010			Respective period of 2009	Growth rate, %
		Projection	Actual	%		
Antiseptics	,000 liters	4.0	3.5	86.3	3.0	115.0
Disinfectants	mln.tab	5500.0	6274.6	114.1	1810.0	346.7
Elastic materials	,000 units	362.0	362.0	100.0	0.0	-
PET containers	,000 units	23776.0	68617.4	288.6	30988.0	221.4
Distribution by individual companies:						
RADIKS R&D and Manufacturing Company		28502.5	28145.0	98.7	19319.5	145.7
products in ampoules	,000 packs	5040.0	5096.0	101.1	4828.2	105.5
tableted forms	tablet packs	6520.0	8291.0	127.2	5928.3	139.9
liquid medicines	,000 vials	8133.0	8917.1	109.6	5415.8	164.6
ointments	,000 units	5204.0	2247.8	43.2	1371.8	163.9
capsule forms	,000 packs	100.0	43.1	43.1	81.1	53.1
infusion solutions	,000 packs	3505.5	3550.0	101.3	1694.3	209.5
JURABEK LABORATORIES JV		29820.0	25300.7	84.8	20380.0	124.1
products in ampoules	,000 packs	3100.0	1744.7	56.3	1070.0	163.1
dry powdered antibiotics	,000 vials	20500.0	17916.3	87.4	18800.0	95.3
infusion solutions	,000 packs	5700.0	4480.9	78.6	465.0	Б9.6p
capsules	,000 packs	520.0	1158.8	222.8	45.0	Б25.8p
tableted	,000 packs	0.0	0.0		382.0	0.0
NOVOPHARMA PLUS JV		26280.0	13199.4	50.2	1883.7	700.7
products in ampoules	,000 packs	5180.0	2714.6	52.4	797.1	Б3.4p
dry powdered antibiotics	,000 vials	21100.0	10484.8	49.7	1086.6	Б9.6p
NOBELPHARMSANOAT		1681.2	2067.2	123.0	1789.3	115.5
injectable drugs	,000 packs	263.0	323.2	122.9	417.7	77.4
liquid medicines	,000 vials	179.0	216.6	121.0	125.7	172.3
tableted forms	tablet packs	1015.8	1143.5	112.6	1067.8	107.1
ointments	tablet packs	10.0	14.0	140.0	13.5	103.7
capsules	tablet packs	189.4	297.9	157.3	120.5	247.2
suspensions	tablet packs	24.0	72.0	300.1	44.1	163.3
sprays	,000 vials	10.0	4.2	42.0	0.0	-
Private enterprise DENTAFILL PLUS		11475.0	22382.9	195.1	9194.2	243.4
liquid medicines	,000 vials	4510.0	7978.9	176.9	6248.0	127.7



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Company and Product	Unit of Measurement	January-December 2010			Respective period of 2009	Growth rate, %
		Projection	Actual	%		
tableted forms	tablet packs	4325.0	7593.0	175.6	1214.0	
ointments	,000 units	1940.0	6005.0	309.5	1732.2	346.7
suspensions	,000 vials	700.0	806.0	115.1	0.0	-
NIKA FARM DKhO		22322.0	23752.6	106.4	15326.0	155.0
tableted forms	tablet packs	7104.0	7288.4	102.6	6111.7	119.3
dry powdered antibiotics	,000 vials	15218.0	16464.2	108.2	9214.3	178.7
O'ZKIMIYOFARM OJSC		14580.0	14226.9	97.6	8994.5	158.2
products in ampoules	,000 packs	5500.0	1550.7	28.2	2625.7	59.1
tableted forms.	,000 packs	8750.0	12619.5	144.2	6123.7	206.1
Galenical drugs	,000 vials	330.0	56.7	17.2	245.1	23.1
GALENIKA LLC		15150.0	5673.9	37.5	6231.1	91.1
Galenical drugs	,000 vials	14500.0	5504.0	38.0	6074.0	90.6
ointments	tablet packs	650.0	169.9	26.1	157.1	108.1
REMEDY JV LLC		12210.0	12470.9	102.1	16115.0	77.4
dry powdered antibiotics	,000 vials	1157.0	2981.1	257.7	4400.0	67.8
capsules	tablet packs	2046.0	1220.1	59.6	1172.4	104.1
tableted forms	tablet packs	5570.0	4292.5	77.1	6996.5	61.4
powders	tablet packs	60.0	38.0	63.3	48.7	78.0
ointments	tablet packs	952.0	886.6	93.1	871.5	101.7
liquid medicines	,000 vials	2425.0	3052.6	125.9	2625.9	116.2
REKA MED FARM JV						
infusion solutions	,000 vials	9000.0	5325.5	59.2	4315.5	123.4
UZBIOPHARM OJSC						
vaccines and sera	tablet packs	2.9	5.1	175.9	10.0	51.0
liquid medicines	,000 vials	1540.0	3473.5	225.6	0.0	-
TEXNOFARM OJSC						
infusion solutions	,000 vials	560.0	306.6	54.8	468.1	65.5
SAMO MP	,000 packs.	4794.0	4892.0	102.0	0.0	-
tableted forms	,000 packs.	4794.0	4892.0	102.0	0.0	-
IMMUNOMED Private enterprise						
products in ampoules	,000 packs	240.0	300.0	125.0	240.0	125.0

Company and Product	Unit of Measurement	January-December 2010			Respective period of 2009	Growth rate, %
		Projection	Actual	%		
Immunobiological drugs (BAA)	,000 packs		23.4		35.7	65.5
ZIYO NUR FARM Private enterprise						
liquid medicines	,000 vials	1280.0	1534.7	119.9	400.0	383.7
INVEST MED PHARM PLUS						
liquid medicines	,000 vials	1800.0	1722.0	95.7	0.0	-
AMALIY MED FARM LLC						
galenical drugs	,000 vials	1900.0	1908.3	100.4	1792.9	106.4
LLC ARMENIA						
BAA	tablet packs	252.0	258.8	102.7	315.3	82.1
ZAMONA RANO Private enterprise						
herbal teas	tablet packs	590.0	763.5	129.4	470.7	162.2
LLC NPAF Far GALS						
antiseptics	,000 vials	15.0	15.1	100.7	6.6	228.8
FITO OLAM Private enterprise						
Bioferron syrup	,000 vials	28.0	31.2	111.4	26.0	120.0
Health Products						
AGRO BIO KIMYO LLC						
disinfectants	,000 liters	15.0	12.8	85.3	1.2	1066.7
antiseptics	,000 liters	4.0	3.5	86.3	3.0	115.0
disinfectants	,000 tablets	5500.0	6274.6	114.1	1810.0	346.7
Medical Items						
NASA private firms						
Capping materials	,000 pcs	10576.0	55617.4	525.9	30988.0	179.5
TB PHARM PLAST LLC						
PET containers	,000 pcs	13200.0	13000.0	98.5	0.0	-
ELASTIKUM LLC						
Elastic products	,000 units	362.0	362.0	100.0		



NASA private firms

Financial outcomes of operations of Uzfarm sanoat SJSC in 2010 look as follows:

Name	Unit of measurement	2009		2010	
		Number	Amount, Million soums	Number	Amount, Million soums
Medical drugs, TOTAL:		107.3	78 550.4	167.8	125 996.1
Injecting medications	mln. ampoules	5.6	8 939.3	17.9	13 174.6
Infusion medications	mln. vials	6.9	5 128.5	13.7	13 879.3
Liquid medications	mln. vials	23.0	10 089.9	34.4	15 775.1
Tableted drugs	mln.packs	27.4	21 300.9	46.1	31 074.3
Dry powdered antibiotics	mln. vials	33.5	29 364.1	47.8	37 844.1
Ointments	mln.packs	9.3	2 073.4	4.2	4 900.2
Capsules	mln.packs	1.4	2 312.5	2.7	7 013.0
Suspensions	mln.packs	0.04	264.7	0.9	1 078.2
Vaccines and sera	mln.packs	0.1	59.4	0.05	614.0
Drug powders	mln.packs	0.05	539.0	0.04	643.5
Medical and other products, TOTAL:		57.9	2 497.7	296.9	9 764.4
Polyethylene products	mln.pc	31.0	1 289.6	68.6	5 242.4
Laminated tubes	mln.pc			6.5	828.1
Herbal teas	mln.packs	0.47	580.08	0.76	1 490.6
Biologically active additives	mln.doses	0.28	461.8	0.35	492.9
Disinfectants	mln.tab	1.8	166.2	6.3	225.1
Bandaging materials	mln.packs	0.0	0.0	0.4	525.1
Absorbent cotton	tons			195.4	960.2

As for prospects of development of pharmaceutical sector in general, it is envisaged to increase the output in 2009-2015 up to:

- **483.9 mln. units** (or 5.9 times) of injected medicines (82.3 mln. units, of which 10 mln. - Uzfarm sanoat companies in 2009);
- **62.3 mln. units** (or 5.8 times) infusion drugs (10.7 mln. units, of which 6.95 mln. units - Uzfarm sanoat companies in 2009);
- **247.8 mln. units** (or 5.7 times) tableted drugs (43.4 mln. units, of which 27.4mln. - Uzfarm sanoat companies in 2009);
- **156.4 mln. units** (or 7.6 times) capsuled drugs (20.5 mln. units, of which 1.42 mln. units - Uzfarm sanoat companies in 2009);
- **14.4 mln. units** (or 3.5 times) ointments (4.1 mln. units, produced by Uzfarm sanoat companies in 2009);
- **12.0 mln.doses** (or 12 times) of vaccines and sera (1 mln. units, of which 10,000 - Uzfarm sanoat

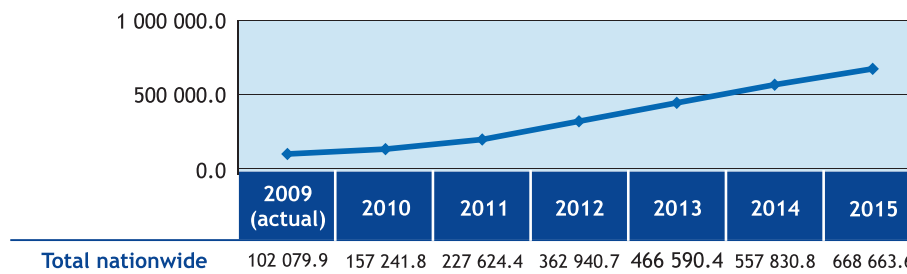


Dentafill Plus private enterprise

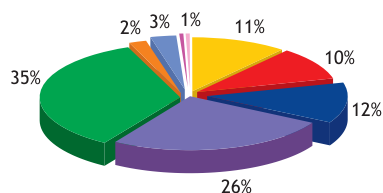
- companies in 2009);
- 300.0 tons (or 150 times) substances of medical drugs, produced by miscellaneous pharmaceutical companies;
- 560 mln.pcs (or 5.1 times) disposable syringes manufactured by miscellaneous pharmaceutical companies.

Total operating revenues of the companies is planned to be increased 6.5-fold by 2015, reaching 668.7 billion soums.

Projected Growth in Production of Medical Drugs (million soums)



Composition of Output of Main Medical Drugs in 2009



- Injecting drugs
- Infusion drugs
- Liquid medications
- Tablets
- Dry powdered antibiotics
- Ointments
- Capsuled drugs
- Suspensions
- Other drugs

Currently following groups of products constitute the main range of pharmaceutical products:

- Medical drugs, including injecting and infusion drugs, capsules, liquid medicines, powders, pills, antibiotics, ointments;
- Health products, including bandages, absorbent and medical cotton wool, suture materials, disposable syringes and drip-up systems;
- Other products including glass tubes, polyethylene products, medicinal teas and herbs, biologically active additives, disinfectants, biopreparations and diagnostic sets.

The pharmaceutical market of Uzbekistan recently has demonstrated impressive trends: average annual growth rate was approximately 25% in the last two years. Analysis of the data pertinent to the results and projected indicators for upcoming several years demonstrated the following.

By the end of 2009, the composition of all medical products produced by all companies of industry looks as follows (in %):

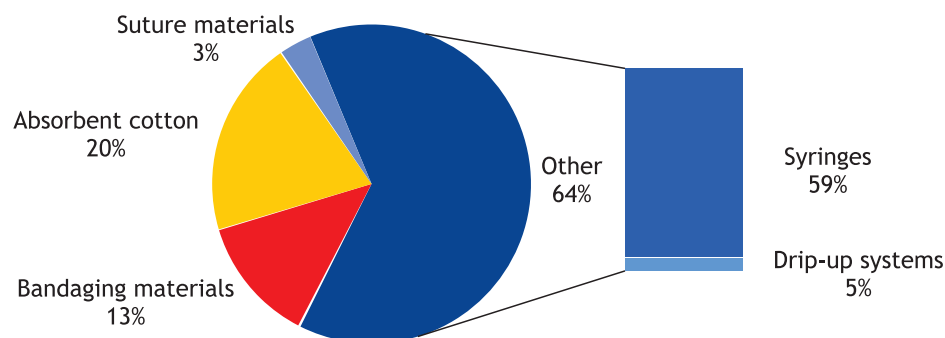
Higher output of main groups of products is projected in medium-term future. 5-7 fold growth of production of medical drugs is projected, and 2.5-8-fold growth in the output of health products and other pharmaceutical products is projected by 2015. Below are analytical studies of existing composition of production of pharmaceutical products by all companies in the sector and medium-term projections of change.

In near future substantial expansion of the range and list of medical drugs is projected: while there were 10 products in the main list in 2009, there will be 16 groups of products by 2015, including production of suppositories, eye drops, probiotics, vaccines, insulin, substances.

Total output will be **468 billion soums** thanks to implementation and start of production of new medications. Increased output of probiotics, vaccines, insulin, substances is expected to reach 81.2 billion soums, while the percentage of pills and injecting preparations will increase from 26% and 11.3% in 2009 up to 30% and 13.5%, respectively, by 2015.

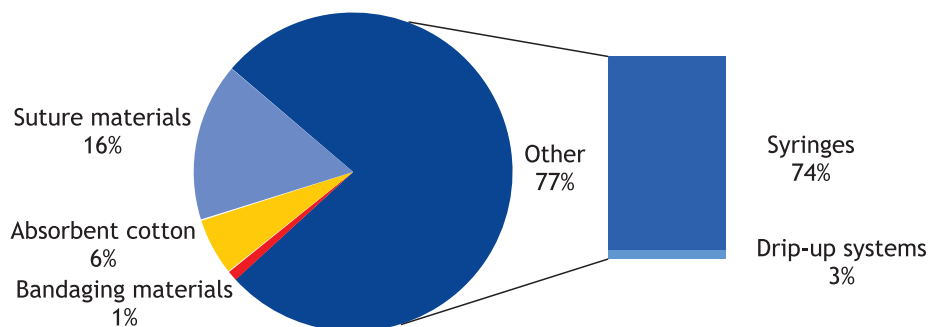
7-fold increase in the group of medical products is planned by 2015.

Composition of Production of Main Medical Products in 2009



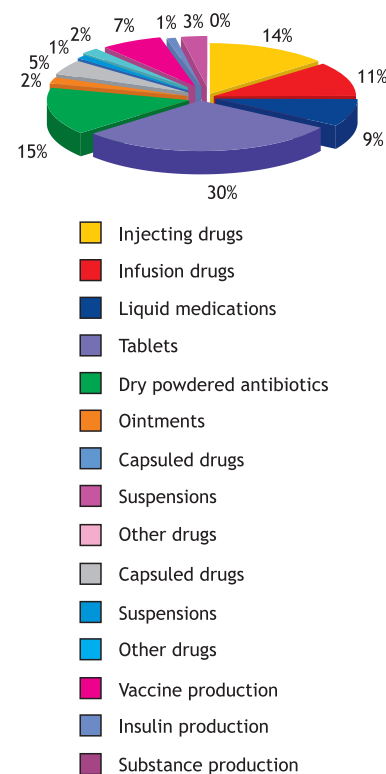
Manufacturing of syringes (8.6-fold) and bandages (8.5-fold) will grow the most, whereas production of drip-ups (4-fold), suture materials, and absorbent cotton wool (double) will have lower growth rates.

Projected Composition of Production of Main Medical Products in 2015 (in percentages)



To this end, the range of products will change somewhat, and production of syringes will still have the biggest weight, which amounted to 59% in total output or 4.2 billion soums in 2009, whereas their share will

Projected Composition of Output of Main Medical Drugs by 2015

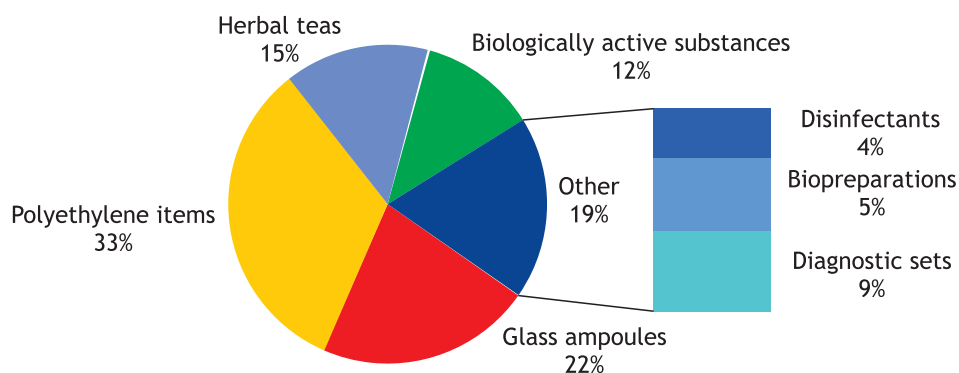


increase up to 78% and total 36.7 billion soums by 2015. Production of absorbent cotton wool will decrease from 20% to 6%, although the output will increase from 1.3 billion soums to 3 billion soums.

Output of bandaging materials will grow from 956 million soums up to 8.2 billion soums, respectively; its share in total output will grow from 13% to 16%.

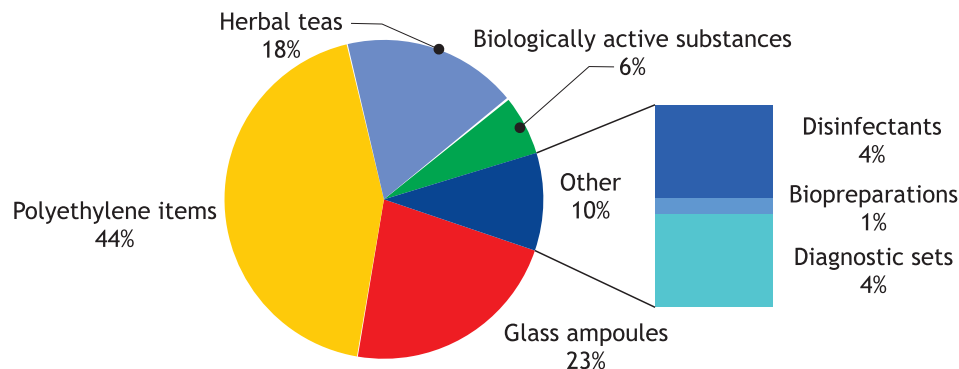
Rapid growth (4.5 -fold) - increase in the output of **other products** from nearly 4 billion to 18 billion soums is expected. Output of polyethylene products will have the highest rate of growth from 13 billion soums in 2009 to 7.7 billion soums by 2015.

Composition of Production of Main Medical Products in 2009



Production of medicinal herbal teas will develop rapidly. While their output totaled **580 million soums** in 2009, the output is expected to reach **3.3 billion soums** or grow by 5.6 times by 2015. 4.7-fold increase in the production of glass tubes is expected, but percentage-wise ratio remains the same in the composition of entire group.

Projected Composition of Production of Main Medical Products by 2015



Output of disinfectants will grow by 4.4%, active biological additives – by 2.1 times, biopreparations – 131%, diagnostic sets – by 198%. Thus, state programme is targeted on faster growth of pharmaceutical production in the next 5 years both by promoting foreign investments and financing from the State Fund for Reconstruction and Development.

As for companies, which represent Uzfarm sanoat SJSC, it is notable that output indicators were growing robustly in the last several years. In recent years increase of output indicators exceed analogous indicators of last period by 1.5 times.

Below are comparative data of the operations of Uzfarm sanoat SJSC companies in 2007-2010.

Output of Main Products by Uzfarm sanoat SJSC in 2007-2010

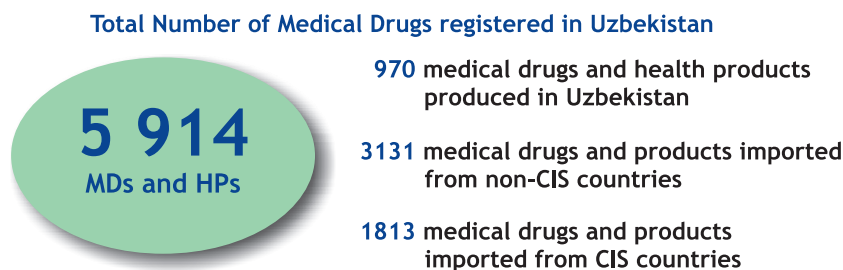
Indicator	Unit of Measurement	Actual in 2007	Actual in 2008	Actual in 2009	Actual in 2010	Growth rate 2010 to 2009
Output (in current prices)	mln. soums	61 158.2	72 815.5	82 485.8	138 408.8	156%
Production of main products, including:	mln. soums	61 158.2	72 815.5	82 485.8	138 408.8	156%
Medical drugs	mln. soums	29 876.3	38 930.8	78 550.4	125 996.1	148%
Bandaging materials	mln. soums	4 881.3	7 889.0	912.0	3 183.1	332%
Medical items (medical glass, PET vials)	mln. soums	25 158.0	23 579.2	1 815.3	6 648.7	348%
Other	mln. soums	1 242.6	2 416.5	1 208.1	2 580.9	207%
Share of medical drugs in total output	%	49%	53%	95%	91%	

Share of Medical Drugs in Total Output of Medical and Health Products



As for quantitative indicators, the output of finished products increased 5-fold in the last 4 years. But more than 4,000 drugs are still supplied by foreign pharmaceutical companies, thus, for purposes of accessibility and import-substitution, domestic producers are focused on production of most on-demand and well-selling medical drugs.

According to the data of the Main Department for Quality Control of Medical Drugs and Equipment of the Ministry of Health of Uzbekistan, the list of certified drugs and products registered by government, currently 5,914 medical drugs (MDs) and health products (HPs) were registered, of which 970 or 16.4% -are domestically produced (state register of medical drugs – 315, 2011). Remaining medications were produced in non-CIS (3,131) and CIS countries (1,813).



The list of main medical drugs includes 347 drugs including 136 (or 39.1%) produced by domestic companies. Domestic manufacturers have got registered 130 medical drugs in 11 non-CIS and CIS countries (Afghanistan, Azerbaijan, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Russia, Tajikistan, Turkmenistan, and Ukraine). Upon expansion of manufacturing base of research institutions and starting production of substances with consideration for mineral resources and industrial potential, production of a wide range of substances and components for medical drugs of animal and plant origin as well as based on inorganic, mineral, synthetic materials, production of radiopharmaceutical preparations and blood products can be arranged in Uzbekistan.

2.2. INDICATORS OF THE EXPORTS OF UZBEK-MADE PHARMACEUTICAL PRODUCTS

The key objective of development of the pharmaceutical industry is to support domestic production, creation of competitive domestic production in the medium-run along with facilitation of foreign investments, and exports of own products.

Domestic pharmaceutical sector is in the genesis of its development, existing manufacturing capacity of operating pharmaceutical companies is approximately USD 100 million, of which total exports of domestically produced medical drugs and substances totaled circa USD 3 million.

The currently exported medical drugs are produced in more than 15 forms distributed from 70 pharmacotherapeutic groups. The hard currency earnings of the companies of Uzfarm sanoat alone totaled USD 1.18 million.

Main export destination for Uzbek-made medical drugs is CIS and Baltic countries with annual 20% increase in the medium-run. With properly chosen development strategy, the products of Uzbek pharmaceutical sector will be scaling up exports to the emerging markets of CIS, Asia, and some products and substances – to Europe.

**List of Uzfarm sanoat SJSC companies, exporting to the CIS countries and the Baltics
(USD, 000)**

Company and Products	Export Indicators		Growth rate, in %
	2010 (actual)	2011 (projection)	
TOTAL, Uzfarm sanoat SJSC:	1177.4	1889.0	160.4
Medical drugs:	963.6	985.0	102.2
Novofarma plus JV	3.6	210.0	
Nobel farmsanoat foreign enterprise	258.8	170.0	
Uzbiofarm OJSC	99.0	80.0	
Immunomed Private enterprise	35.9	25.0	
Nika Pharm DKHO	271.8	300.0	
Jurabek Laboratories JV	241.3	200.0	
Dentafill Plyus Private enterprise	53.3		
Other products	213.8	904.0	422.8



2.3. UZBEK IMPORTS OF PHARMACEUTICAL PRODUCTS AND COMPONENTS FOR DOMESTIC PRODUCTION

In 2010 the imports of pharmaceutical products of the Uzbek companies totaled **USD 373.7 million**, which was slightly lower than previous Year 2009 (USD 411.6 million). Lower imports are explained by implementation of the number of projects for local production of components to produce finished products.

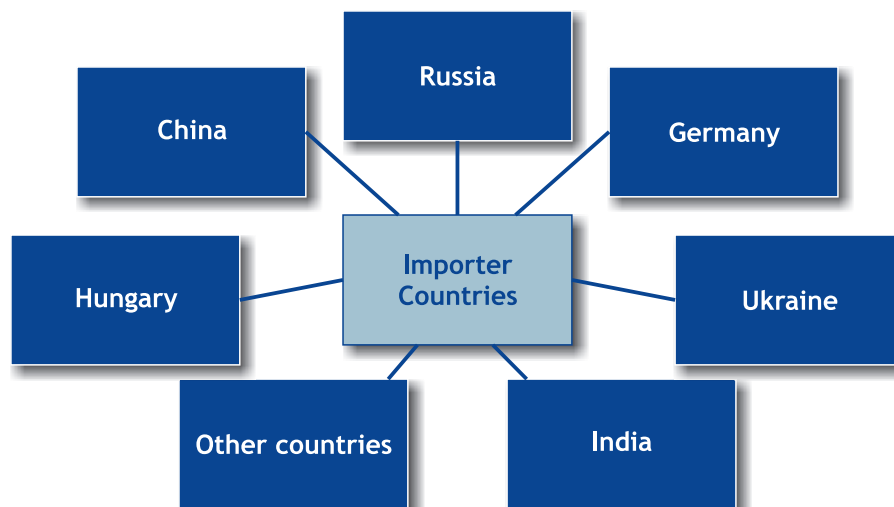
Nearly 83% of pharmaceutical imports worth USD 309.8 million were designed for retail sales. Finished medical drugs worth USD 204.6 million accounted for more than half – 54.7%.

Medical drugs containing antibiotics worth USD 37.7 million, alkaloids – USD 27.3 million, vitamins worth USD 27.6 million, vaccines worth USD 17.2 million, and other preparations are also imported. Imported drugs currently supply up to 67% up to 95% of the markets of miscellaneous medical drugs from Uzbekistan. Uzbekistan imports drugs mostly from Russia, Germany, Ukraine, India, China, and Hungary. Imports of medical drugs will be growing annually by 21-22% in the next 4-5 years.

Most domestically manufactured medical drugs are generics, produced mostly from imported substances. Original domestic drugs account for 1.9% of domestic production.

More than 86% of domestic medical drugs are manufactured fully (14%) or mostly (72%) from imported substances, which currently makes domestic production of medications utterly dependant on imports, their quality, and prices. Development of domestic pharmaceutical sector will facilitate not only market saturation by domestic products but also presents the prospects of technological development and increased use of domestic inputs.

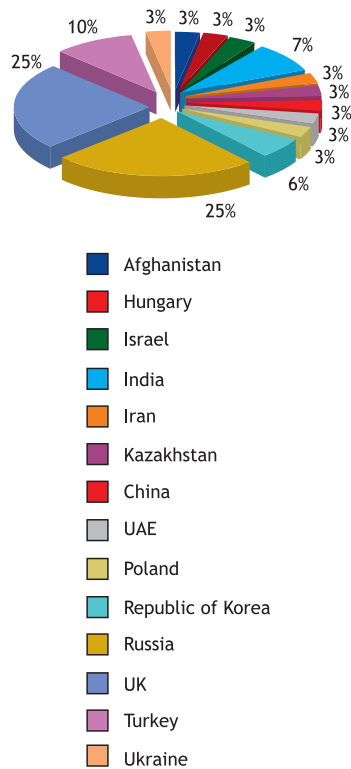
Geographic Distribution of Medical Drug Imports in 2009-2010



Preventive health actions will have an impact on trends and composition of demand in the pharmaceutical market. Inter alia, development of early diagnosis and diagnostics activities in general will increase demand for substances needed for laboratory tests and so on. With emergence of healthy lifestyle, consumption of drugs, which promote disease prevention, will be expanded.

Product	(USD ,000)	
	2009	2010
Finished medical drugs	240 228.25	204 591.25
Medical drugs containing antibiotics	31 156.70	37 741.52
Medical drugs, containing vitamins and other compounds	24 083.69	27 672.44
Medical drugs containing alkaloids or their derivatives	25 208.22	27 308.70
Human vaccines	5 351.70	17 218.27
Medical drugs containing penicillin or its derivatives	15 138.89	14 414.93
Other medical drugs	23 467.88	8 919.13
Animal blood for preventive, therapeutic or diagnostic purposes	7 407.95	8 648.29
Hormone-containing preparations	11 493.76	11 020.48
Microorganism cultures	4 862.09	4 784.49
Veterinarian vaccines	4 295.92	3 573.87
Hormone-based contraceptives	2 029.98	1 629.92
Other human-origin immune sera	1 556.63	1 078.16
Other blood fractions	2 009.29	809.72
Adhesive bandaging materials and other adhesives	618.38	763.53
Other surgical/dental sterile materials and sterile hemostatic substances	220.27	763.44
Contrast preparations for X-rays, tests, diagnostic reagents	1 717.79	747.37
Insulin-containing preparations	6 796.45	661.86
Other vaccines, toxins, cultures (except for yeast) of microorganisms and analogous products	751.52	403.28
Tooth cements and materials for tooth filling; bone-reinforcing cements	102.22	263.38
Other medications	3 104.20	713.49

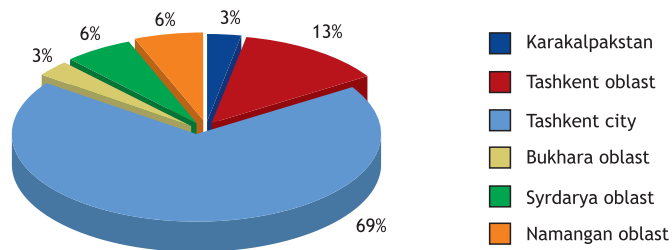
Geographic Distribution of Countries represented by Investors in the Uzbek Market



3. SUCCESS STORIES

According to the international experts, the pharmaceutical market of Uzbekistan is amongst most rapidly developing among CIS and Eastern European countries. Establishment of joint ventures became an important factor of positive developments of domestic pharmaceutical industry. As of the end of 2010, 32 companies with foreign investments from 14 countries were operating with total direct investments into generation of authorized funds of **USD 10.6 million**. Insignificance of figures once again indicates high market potential for bringing in foreign investments and inadequate study by foreign companies.

As for location of the companies with foreign investments, most of them (circa 70%) operate in Tashkent city and Tashkent oblast. A number of companies are located in Syrdarya, Bukhara, and Namangan oblasts of Uzbekistan, and another one operates in Karakalpakstan (processing licorice roots).



According to the statistical data, 4 investments projects were implemented with disbursement of USD 4.29 million in 2007, and 18 projects worth USD 6.37 million in 2008, 9 projects totaling USD 6.79 million in 2009, and 12 projects totaling USD 6,211,600 were implemented in 2010, respectively, which enabled to install modern high-tech equipment at the number of companies, and start production of new generation drugs. As a result, the number of new medical drugs exceeded 24, drug substances 11, and production of 94 import-substitution drugs were launched in this period.

Among completed projects experts note production of pills and injected drugs at Nobel Farmsanoat foreign enterprise, technical modernization of production of polyethylene vials at Nasa private firm, production of preparations in vials and antibiotics of penicillin line in vials at Jurabek Laboratories JV, and modernization of pill factory at Remedy JV. The cost of technical retooling at these companies totaled USD 1,484,000. Based on the plans to expand the range of products, the number of new pharmaceutical companies, which produce import-substituting medical drugs and products, is increasing.

Omninvest Foreign enterprise, a company for production of immune biological preparations, was launched last year. Cooperation for establishment of joint ventures is underway with following companies:

- [Beacons Pharmaceuticals \(Singapore\)](#) for production of medical drugs for children;

- [Sharon Bio \(India\)](#) for production of medical substances;
- [Codepharm Sp. z.o.](#) for production of medicinal preparations;
- Other foreign companies.

Beacons Pharmaceuticals and Uzfarm sanoat signed a cooperation agreement on construction of a pharmaceutical plant for production of medical drugs in Uzbekistan. The company plans to manufacture about 40 pharmaceutical products per annum and intends to invest approximately USD 10 million into construction of the plant.

On October 1, 2009, the company signed cooperation agreement with Nika Farm Servis (NFS), a major distributor of pharmaceutical products in Uzbekistan. The companies will collaborate in research and development of technical solution for manufacturing and certification according to the international standards and human resources training.

Also the Programme of Research and Production Cooperation and Integration of Research Institutions with the Uzfarm sanoat SJSC Companies for production of medicinal substances with further processing into medical drugs at the companies of the sector. Its implementation will enable to develop new import-substitution medications based on natural and synthetic biologically active compounds for treatment of cardiovascular, viral, and microbial diseases, tuberculosis, disorders of kidneys and other vital organs, develop and implement production technologies with consideration of modern standards.

Adoption of the State Programme for Development of Domestic Pharmaceutical Industry gave new impetus for development of domestic pharmaceutical industry and facilitated inflows of foreign investments. For instance, the sales of domestically produced medications grew 339.3% in 2004-2010, which, according to the expert estimates, indicates rapid growth in the sales of domestically produced medical drugs.

In order to promote emergence of new manufacturing companies, the Programme on Priorities of Industrial Development of Uzbekistan in 2011-2015 has been adopted and approved by a Resolution PP-1142 of the President of Uzbekistan dated 15.12.2010, which mandates implementation of 28 new investment projects worth [284.17 USD million](#). In the framework of the Programme for Development of Pharmaceutical Sector, Uzfarm sanoat companies are planning to launch [31 new medical drugs](#) in 2011 including:

Nº	Product Name	Pharmacotherapeutical Group	Manufacturer
1	1 Azitromycyn suspension 200 mg/30 ml	antiviral	Dentafill plyus private enterprise
2	2 Albesol, tab № 3	deworming	Nobel farmsanoat foreign enterprise
	3 Albesol, tab № 6	deworming	Nobel farmsanoat foreign enterprise
3	4 Allapinina, solution 0.5% - 2.0 ml	antiarrhythmic	RADIKS R&D and Manufacturing Company
4	5 Ambroxol 15 mg/5ml/100ml	expectorant	Dentafill plyus private enterprise



Nika Pharm DKhO



Remedy JV LLC

Nº	Product Name	Pharmacotherapeutical Group	Manufacturer
5	6 Ambrosola, syrup 90 ml	expectorant	Galenika LLC
6	7 Baralnovgan, 5 ml	spasmolytic	Novofarmaplus
7	8 glycerin №10 (rectal suppository 1.24g)	supplement	Dentafill plyus private enterprise
	9 glycerin №10, rectal suppository 2.11g	supplement	Dentafill plyus private enterprise
8	10 Diklofenak №10(rectal suppository, 100mg)	non-steroid anti-inflammatory drug	Dentafill plyus private enterprise
9	11 Drotaverin 40 mg/2ml № 10	spasmolytic	Novofarmaplus
10	12 Janet (Seknidazol) № 2	anti-parasitic and anti-protozoa	NIKA PHARM DKHO
	13 Ingalypt spray 20 ml	drug for treatment of respiratory organs	NIKA PHARM DKHO
11	14 Indometacine №10(rectal suppository 100mg)	non-steroid anti-inflammatory drug	Dentafill plyus private enterprise
12	15 Irbesan 150 tab. № 14	antihypertensive drug	Nobel farmsanoat foreign enterprise
	16 Irbesan 75 tab. № 14	antihypertensive drug	Nobel farmsanoat foreign enterprise
13	17 Ikhtiol 200mg(rectal suppository)	antiseptic and disinfectant	Dentafill plyus private enterprise
14	18 Ketoprofen 100 mg/2 ml № 10	non-steroid anti-inflammatory drug	Novofarmaplus JV
15	19 Klamok 1000 tab. № 15	antibiotic	Nobel farmsanoat foreign enterprise
	20 Klamok 375 tab. № 15	antibiotic	Nobel farmsanoat foreign enterprise
	21 Klamok 625 tab. № 15	antibiotic	Nobel farmsanoat foreign enterprise
	22 Klamok suspension	antibiotic	Nobel farmsanoat foreign enterprise
16	23 Co-irbesan 150 tab.№14	antihypertensive drug	Nobel farmsanoat foreign enterprise
	24 Co-irbesan 300 tab.№14	antihypertensive drug	Nobel farmsanoat foreign enterprise
17	25 Levomicytyn, alcohol solution 0.25%	antibiotic	Galenika LLC
18	26 Menovazin ointments 25	anesthetic	Galenika LLC
19	27 Oksolyn ointments 0.25% - 10	antiviral	Galenika LLC

Nº	Product Name	Pharmacotherapeutical Group	Manufacturer
28	Palora 100 tab. 10	sedative	Nobel farmsanoat foreign enterprise
20	29 Palora 100 tab. 30	sedative	Nobel farmsanoat foreign enterprise
	30 Palora, syrup	sedative	Nobel farmsanoat foreign enterprise
21	31 Papaverin, hydrochloride 20 mg(rectal suppository)	spasmolytic	Dentafill plyus private enterprise
	32 Paracetamol №10 (rectal suppository 125mg)	analgetic- antipyretic	Dentafill plyus private enterprise
22	33 Paracetamol №10 (rectal suppository 250mg)	analgetic- antipyretic	Dentafill plyus private enterprise
23	34 Perinorm (0.5% - 2.0 ml solution)	anti-hypertension	RADIKS R&D and Manufacturing Company
24	35 Prednizolon solution - 30% - 1 ml solution № 5	glucokortikoid	JV Novofarmplus
	36 Radalin pills 10 mg	drug, which affects nerve and muscle control	RADIKS R&D and Manufacturing Company
25	37 Radalin pills 5 mg	drug, which affects nerve and muscle control	RADIKS R&D and Manufacturing Company
	38 Radamox, powder, d/suspension, 125mg/5 ml	antibiotic	RADIKS R&D and Manufacturing Company
26	39 Radamox, powder, d/suspension, 250mg/5 ml	antibiotic	RADIKS R&D and Manufacturing Company
27	40 Rinoxyl - 0.1% - 10 ml	drug for treatment of respiratory organs	NIKA PHARM
28	41 Rinoxyl- 0.05% - 10 ml	drug for treatment of respiratory organs	NIKA PHARM
29	42 Tetracycline eye ointments 1% 10g	antibiotic	Dentafill plyus private enterprise
30	43 Zinc sulphate solution 0.25%	ophthalmology drug	Galenika LLC
31	44 Ciprofloxacin solution for infusions	antibacterial drug	JV Jurabek Laboratories
32	45 Eritromycin, eye ointments 1% 10g	antibiotic	Dentafill plyus private enterprise

Currently pharmaceutical companies (primarily Uzfarm sanoat SJSC) developed and are implementing the programme of measures for active promotion of foreign investments.

As a result, against the projections of inflows of USD 3.85 million in investments in the 1st quarter, 2011, actual

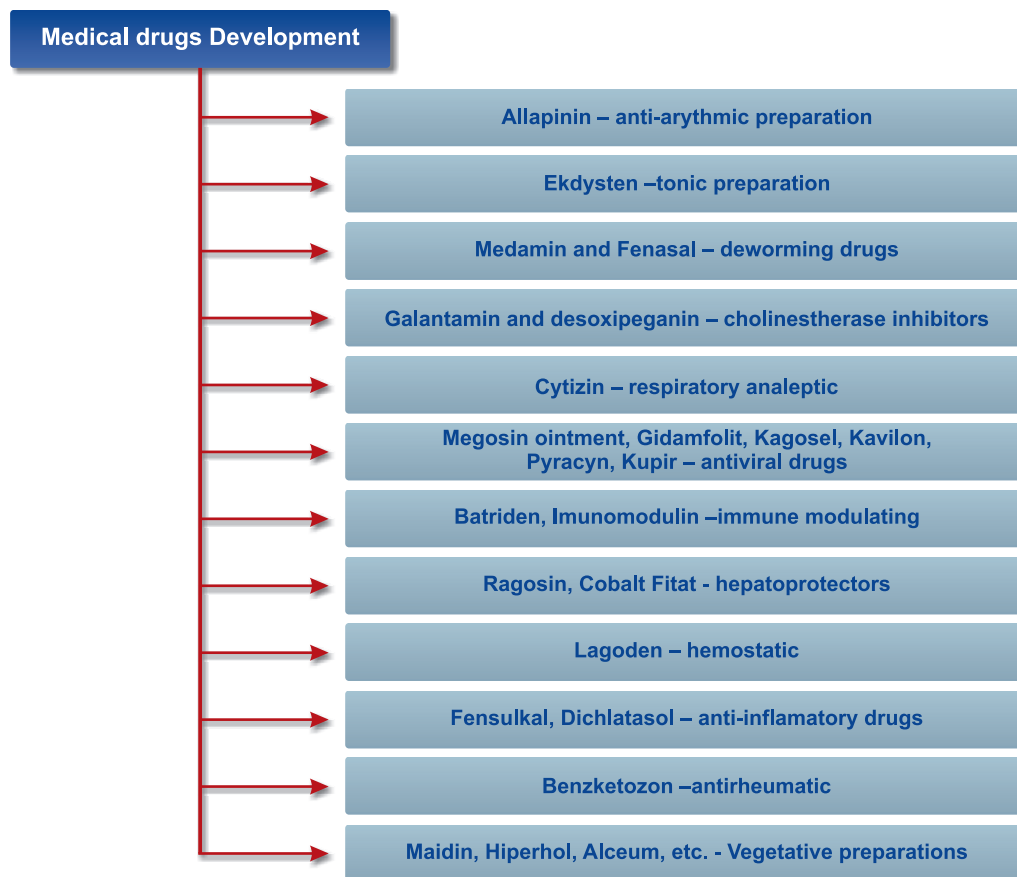


Nika Pharm DKhO

inflows totaled USD 13.21 million (343.6%), and with projected investments of USD 3.75 million, actually USD 11.65 million were disbursed (311.1%).

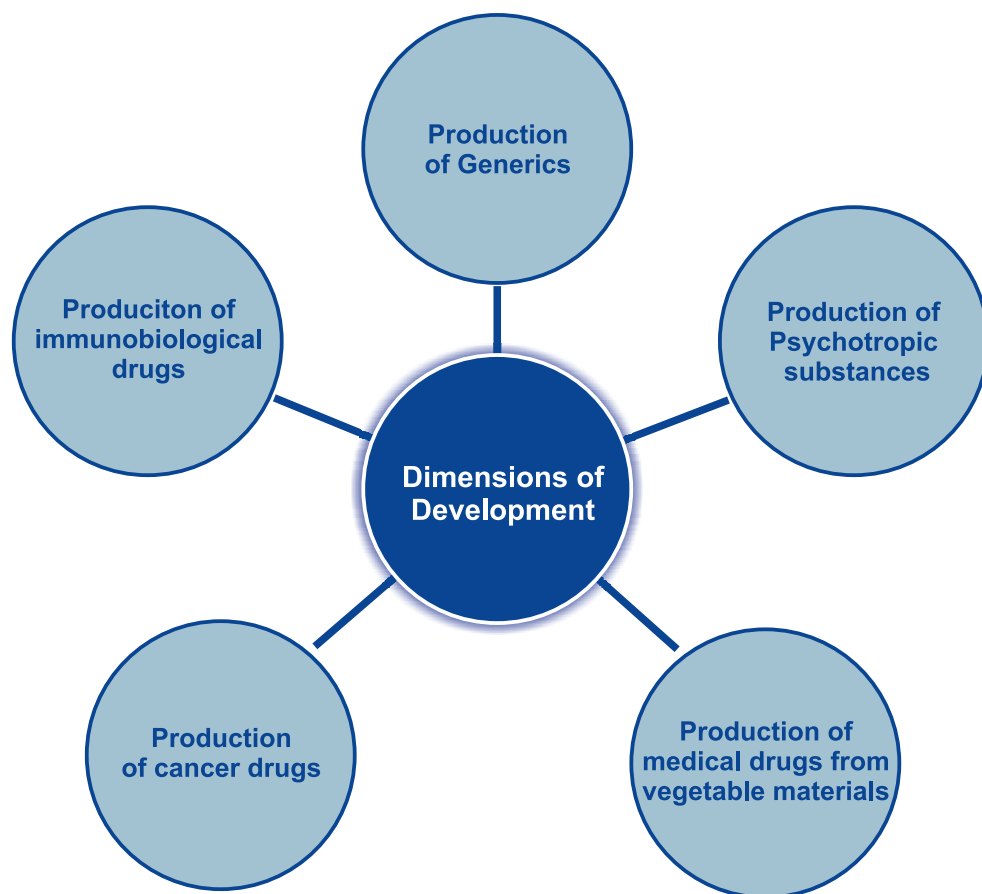
As for additional investments (equity and other sources), with projections of disbursement of USD 0.83 million, actually USD 8.52 million (1,026.4%) was disbursed in the reporting period, and with projected USD 0.93 million of investment inflows, actual inflow was USD 9.66 million (1,038.2%).

Research and development efforts of the domestic scholars to produce new pharmacological groups may facilitate rapid growth of inflow of foreign investments and technologies. So far the domestic research institutions have studied biological activity of the number of compounds with anti-arythmic, cholinestherasis, adaptogenic, estrogenic, hypotensive, anti-inflammatory, hepatoprotective, anti-oxidant, atherosclerotic, antimicrobial, anti-viral, and other activities.



Trial plots are operating at Uzbek Chemical and Pharmaceutical Institute, Institute of Vaccines and Sera, Institute of Bioorganic Chemistry, Institute of Chemistry and Physics of Polymers of the Academy of Sciences of Uzbekistan, Tashkent Pharmaceutical Institute, for production of substances of medical drugs, and there is pilot production with capacity of up to 100 tons of vegetative inputs at the Institute of Plant Chemistry.

As of today the Uzbek Chemical and Pharmaceutical Institute developed domestic technology of producing pharmacopeic substance of sodium chloride, essential for producing injection and infusion solutions. In the upcoming years pharmaceutical institutes and domestic companies are planning to focus their efforts in development of production of wide range of generics including pills, capsules, injecting preparations, infusion preparations, ointments, etc. as well as psychotropic and immunobiological preparations, insulin, cancer drugs, plant-based medications, etc.



**List of New Medical Drugs being developed at
Uzbek Chemical and Pharmaceutical Institute named after A. Sultanov under
UZFARMSANOAT SJSC**

The Institute of Bio-organic Chemistry of the Academy of Sciences and Uzbek Research Institute of Chemistry and Pharmaceutics named after A. Sultanov developed the number of medical drugs, which are now being produced at Uzkhimfarm OJSC:

№	Name of Medical Drugs	Purpose of Drug	Note
1.	Gozalidon	The only domestically produced medication for treatment of Chlamydia, recurring inflammatory processes of pelvic organs; primary and secondary infertility; epididimites, prostatitis, chronic uretrites, reactive arthritis of Reuter diseases Gozalidon promotes growth of endogenic interferons in the organism, subdues the growth of chlamydia infection, acting as antiviral drug	Gozalidon is equally effective as Sumamed, an imported drug, and its cost is ¼ -1/5 Form of drug – 0.1g Gozalidon pills
2.	Ragodin	It acts as hepatoprotector and is designed for treatment of: viral hepatitis B, C, and D. The drug increases the content of interferons in the blood, accelerates normalization of liver ferments and bilirubin. It facilitates rapid reduction of liver size and removal of hepatitis virus from the body	Treatment of hepatitis with Ragodin pills – 0.05g - 12 pills.
3.	Tefestrol	Tefestrol is used for treatment of the number of gynecological diseases. Clinical tests of Tefestrol were done at 10 health institutions in Russia and Ukraine. Its high estrogen effect, good resistance, and lack of adverse side effects have been demonstrated.	Tefestrol is equally effective as Diethylstilbestrol, Etynilestradiol, imported estrogen-based drugs, and as opposed to them, has wide therapeutic effect and lacks side effects
4.	Carbon entero- and hemosorbents	Enterosorbents –AU-L and AU-K are used against acute intestinal poisonings. They are produced from granulated activated carbon, which effectively adheres to and removes toxic blood-borne compounds from the intestines	AU-L and AU-K are produced from natural cotton lignine (AU-L) and fruit seed carcasses (AU-K). Protected by patent of Uzbekistan №IAP 04521 issued on 18.09.2000
5.	Fensulkal	Used in medical practices to treat miscellaneous gynecological diseases – cervical erosion, vulvite, colpitis, endocervitis, parametrite, salpingoophorite, endometrite or their combination. 3% ointment is produced at Galenika LLC.	Permit of Ministry of Health for medical use and production of substances and ointments. Protected by patent of Uzbekistan № 4521 issued on 13.06.1997

№	Name of Medical Drugs	Purpose of Drug	Note
6.	Benzketozone substance	Drug is permitted for treatment of rheumatological diseases – arthritis, polyarthritis, acute rheumatism, and chronic rheumatic polyarthritis. Anti-inflammatory tablet of benzketozone is a yellow powder with weak scent of organic compound. It is low-toxic highly-effective anti-inflammatory drug, which is more effective than Butadion and Voltaren, well-known drugs.	Benzketozone substance – registration certificate № 07/403/1 issued on 12.09.2007, WFS 42 Uz-0849-2005, Benzketozone is produced at UzKFITI
7.	Benzketozone pills	This drug is also used in medical practices as 3% ointments for treatment of rheumatological diseases	Benzketozone ointment 3% - registration certificate № 007-05 or 1.11.2005 , WFS 42Uz-0851-2005). 3% benzketozone ointment is produced at Galenika LLC.
8.	Khiperkhol substance	New domestic diuretic drug . The substance – dry extract is produced from St John's wort widespread in Uzbekistan.	Khiperkhol substance is permitted for production and application (Registration certificate № 07/337/6) and approved by WFS 42 Uz-1061-2007.
9.	Khiperkhol pills	Khiperkhol pills are used for dyskinesia of bile ducts, hepatitis, bile stagnation in the cholecyst, and gastrointestinal diseases	Khiperkhol pills (0.2) are produced and approved by WFS 42 Uz-1062-2007 and certified for medical use (certificate № 03-07).
10.	Maidin substance	Drug has diuretic (20% increase in diuresis) and anti-inflammatory (reducing leucocyturia) effects. It reduces crystalluria of patients with calcium urolithiasis and pre-urolithiasis, used as a drug with diuretic and hemostatic effects	Drug has been successfully tested clinically on patients in the pre-urolithiasis stage. The input for the substance – corn snouts widely available in Uzbekistan
11.	Maidin pills	This new domestically produced diuretic drug is also used as pills.	
12.	Alceum substance	Alceum pills are designed for treatment of inflammatory diseases of upper respiratory tracts and are effective for treatment of chronic catarrhal bronchitis, chronic bronchial asthma, non-allergic genesis, etc.	Stock-rose roots, widely available in Uzbekistan are used as the input for substance (dry extract). Protected by Uzbek patent №IDP 05161 issued on 25.04.2002
13.	Alceum pills	Tablets of dry extract of roots of stock rose 0.2g – Alceum have been developed. The drug has been successfully clinically tested and with decision of Main Department of Medical Drugs and Health Products of the Ministry of Health of Uzbekistan is permitted for medical use as an expectorant and cough-soothing drug.	Registration certificate №04-07, BΦC 42 Y3-1068-2007.

№	Name of Medical Drugs	Purpose of Drug	Note
14.	Glycyrosin substance	Glycyrosin based on mix of dry extracts of licorice root and stock-rose ratio of 1:2 is used as an expectorant and anti-inflammatory drug in case of inflammatory diseases of upper respiratory tracts	Glycyrosin is permitted for medical use as anti-inflammatory, expectoration, and cough-soothing drug
15.	Glycyrosin drug	Technology of obtaining substance and tablets of glycyrosin – new domestically produced drug developed by mixing dry extracts of stock-rose and licorice root. The stock-rose roots contain polysaccharides and are permitted for use as expectorants in medical practice. Licorice roots have also been used as anti-inflammatory drug for long time.	Glycyrosin as 0.15g pill 0,15rp is permitted for medical use – registration certificate №05-07, WFS 42 Uz-1069-2007.
16.	Phytobalt substance	Phytobalt substance created on the inosithexaphosphorite acid and cobalt compounds is low-toxic and has high hepatoprotector effect. It is used as patogenetic drug in case of liver disease.	Permit of Main Department of Medical Drugs and Health Products of the Ministry of Health of Uzbekistan for medical use and Production of phytobalt substance at UzKFITI
17.	Phytobalt tablets	This drug is also used as tablets, which is more effective than well-known drugs such as Syrepar and Silibor	Phytobalt pills are produced at UzKhimfarm OJSC

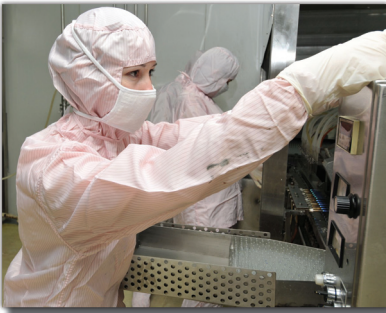
Projected Indicators of Growth of Output of the Pharmaceutical Companies in 2010-2011

Output Indicators									
Medical Drugs		Uzfarm sanoat SJSC companies				Companies outside Uzfarm sanoat SJSC			
		Num. of companies	Output Projections (units)			Num. of companies	Output Projections (units)		
			Measurement Unit	2010	2011		Measurement Unit	2010	2011
1.	Injecting medications	4	mln. amp.	109.8	117.8	3	mln. amp.	146,1	167,7
2.	Infusion medications	2	,000 vials	5 760	5 980	7	,000 vials	34 740	41 270
3.	Liquid medications	5	,000 vials	17 001	18 662	13	,000 vials	23 705	25 294
4.	Tableted drugs								
Pills	4	,000 packs	12 870	13 690	13	,000 packs	43 990	57 450	
5.	Vaccines and sera	1	,000 packs	36.4	44.6	0	,000 packs	0	0
6.	Dry powdered antibiotics	1	mln. vials	16.8	17.0	3	mln. vials	23 510	26 010
7.	Capsules	2	,000 cap.	2 900	3 200	7	,000 cap.	70,7	84,9
8.	Ointments	2	,000 packs	930	990	2	,000 packs	51,0	66
9.	Biopreparations	0	,000 packs	0	0	2	,000 packs	230,0	240
10.	Bandaging materials	2	mln.pc	19	20,4	3	mln.pc	4 350	5 850
11.	Medical ware	1	mln.pc	55	60	0	mln.pc	0,0	0
12.	Antiseptics	0	,000 vials	0	0	1	,000 vials	50,0	60
13.	Medical powders and teas	0	,000 packs	0	0	2	,000 packs	150,0	160
14.	Suture materials	0	,000 running meters	0	0	1	,000 running meters	375,0	410
15.	Disposable syringes	0	mln.pc	0	0	2	mln.pc	95,0	180
16.	Glass tubes	1	mln.pc	160	165	1	mln.pc	12,1	12,5
17.	Polyethylene products	1	mln.pc	50	65	0	mln.pc	0,0	0,0
18.	Medical cotton wool	3	,000tons	1,5	1,7	1	,000tons	0,5	0,6

4. PROSPECTIVE DIRECTIONS

4.1. PRIORITIES OF FURTHER DEVELOPMENT OF THE NATIONAL PHARMACEUTICAL SECTOR OF UZBEKISTAN

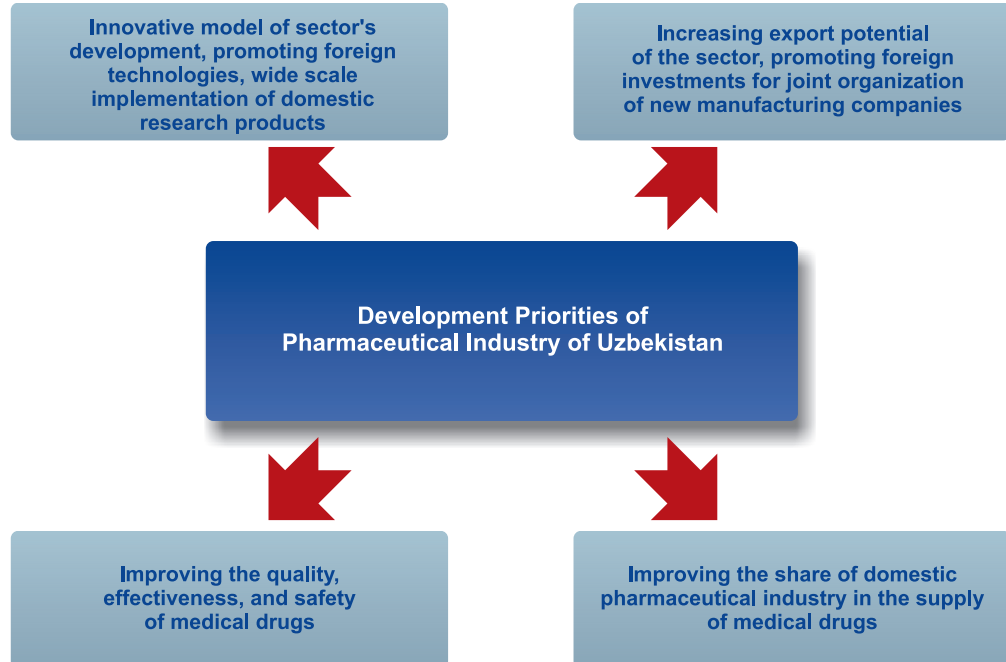
In the framework of special programme of activities for production of competitive, import-substitution-oriented, export-oriented products up to 2015, projects totaling **USD 26.5 million** are planned at **39 pharmaceutical companies**, envisaging 3-fold increase in output and 2.2-fold increase in exports.



Novofarma plus JV

The programme of modernization, technical and technological re-tooling of pharmaceutical companies in the period up to 2015 focused on consistent reduction of country's dependence on imports of medical drugs through more comprehensive use of own manufacturing capacity, inputs, scientific potential, and establishment of new pharmaceutical companies utilizing modern technologies.

ISO 9001 and GMP international quality standards have been implemented at more than a dozen pharmaceutical factories, while product quality management system is being improved at the companies – drug manufacturers.



According to the findings of the survey of pharmaceutical companies, offices of foreign companies and research institutions, development of pharmaceutical industry may get rapid boost in development with targeted government support. Expected outcomes of development of pharmaceutical industry in Uzbekistan include:

- Increasing the output of the sector up to USD 500 million and more in the next 10 years;
- Increasing the exports of domestic pharmaceutical products;
- Creation of unique innovative pharmaceutical and medical technologies, creation of research centers of innovative products with high value-added;
- Creation of national drug security system.

Considering current prospects of development of pharmaceutical sector as an important innovative sector of Uzbek economy, domestic manufacturing companies are not stopping at the results obtained and envisage expanding the range of products, which meet high standards. Inter alia, in the nearest 2-3 years:

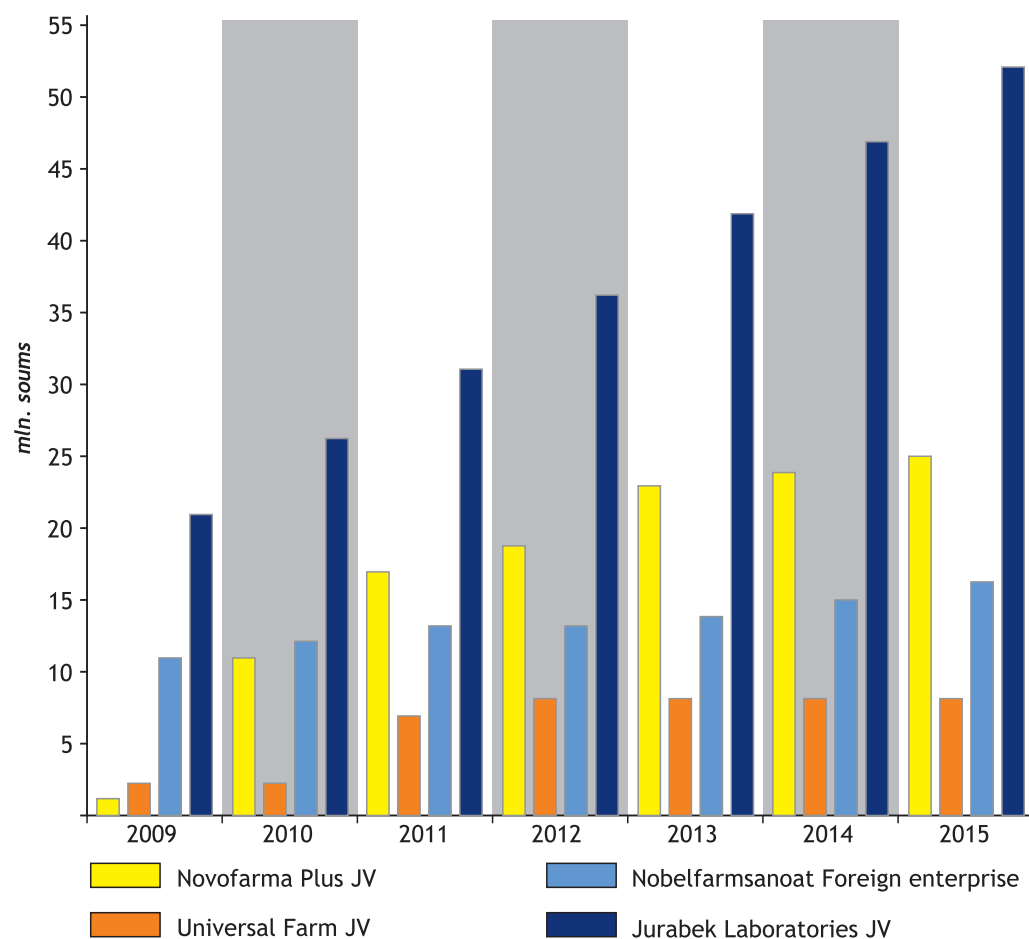
- **Novofarma plus JV** is planning to start production of new injecting drugs against cardiovascular diseases as well as painkillers and metabolism-regulating drugs;
- **Jurabek Laboratories JV LLC** is starting production of infusion solutions and injected medicines;
- **Radiks** is planning to produce new antibiotics, anti-inflammatory, anti-fungi, antiviral (acyclovir), antihypertensive (enalapril), and other drugs (total – 83 medical drugs);
- **Uzbiofarm** is planning to start production of immunobiological preparations for treatment of infectious diseases.
- **Nobel Farmsanoat JV** is planning to start production of antibiotics, anti-inflammatory, antimycotic, antiviral (Acyclovir), anti-hypertensive (Enalapril) and прочих drugs (total 83 medical drugs).

Prospects of Production of New Pharmaceutical Products in the Medium-Run

Company	Years						
	2009	2010	2011	2012	2013	2014	2015
Novofarma plus JV	1,174.5	10,974.0	15,813.4	19,342.6	23,112.2	24,486.9	24,824.4
Universal Farm JV	1,384.0	1,470.7	6,250.0	6,560.0	6,852.0	7,062.0	7,272.0
Nobel farmsanoat foreign enterprise	11,473.1	11,950.0	12,300.0	13,000.0	14,000.0	15,000.0	16,000.0
Jurabek Laboratories	20,469.2	25,403.9	30,370.2	35,565.2	42,665.3	46,961	50,450.3



Novofarma plus JV



Furthermore, current domestic output of medical drugs for treatment of TB, cancer, cardiovascular diseases, psychoneurological, and other diseases is not adequate.

In order to address these objectives in the medium-term, it is planned to promote foreign investments to set up joint ventures to start production of new drugs including cephalosporin antibiotics (estimated project value – USD 37 million), plasma-substitution and blood-substitutes (USD 30 million), anti-viral preparations (USD 15 million), immunobiological preparations from biotechnological materials (vaccines, sera, test-systems, nutrient solutions, etc. for total amount of USD 3.21 million, pharmaceutical substances of original medical drugs and generics (5.3 USD million), etc.

5. GOVERNMENT SUPPORT

5.1. LEGISLATIVE FRAMEWORK OF UZBEKISTAN RELATED TO PHARMACEUTICAL OPERATIONS

The Law N 415-I on Medications and Pharmaceutical Activities of Uzbekistan dated 25.04.1997 constitutes the regulatory backbone of pharmaceutical industry.

According to the law, the government guarantees accessibility of basic medical drugs and their quality. In Uzbekistan any handling of unauthorized medications and health products is prohibited.

The Ministry of Health of Uzbekistan determines the list of medications, health products permissible for use in medical practices, and

- arranges government procurement and controls availability of basic medications and medical products at public health institutions;
- licenses pharmaceutical operations according to the established procedures;
- approves the standards of laboratory, manufacturing, and pharmaceutical practices;
- approves national pharmacopeia;
- exercises quality control, registration, standardization, and certification of medical drugs and health products;
- establishes the procedures for sales, storage, record-keeping, and generation of stocks of narcotic, poisonous, psychotropic, radiopharmaceutical (radioactive) substances and ethyl spirit;
- maintains and periodically publishes state register of medical drugs and health products.

5.2. BENEFITS AND PREFERENCES GRANTED TO FOREIGN INVESTORS

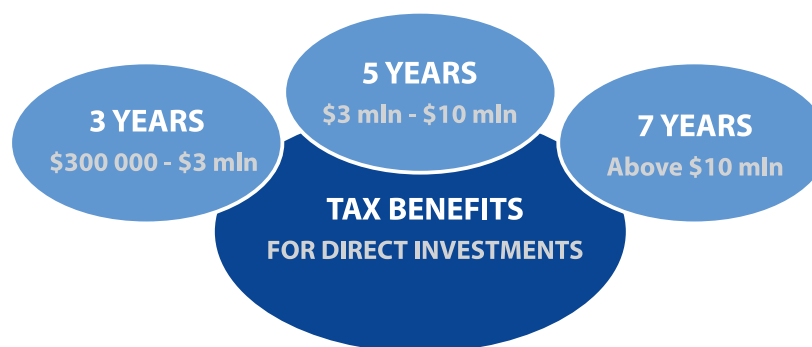
Government policy and strategy for development of pharmaceutical industry of Uzbekistan is focused on facilitating the growth of manufacturing capacity, promoting foreign investments through granting benefits and preferences.

The Decree UP-3594 of the President issued on 11.04.2005 to promote private foreign investments is an important document, which regulates manufacturing of medical drugs.

According to the Decree, starting July 1, 2005, the companies – recipients of private foreign direct investments, including drug manufacturers, are exempted from:

- Corporate tax;
- Property tax;
- Social infrastructure development tax;
- Single tax payment for microfirms and small businesses;
- Mandatory contributions to the Republican Road Fund.

Tax benefits are granted for different periods depending on the amount of the private direct foreign investments.



Creation of Navoi Free Industrial and Economic Zone became an important decision in creating favorable environment to promote foreign investments, primarily direct investments.

Based on the decision of the President of Uzbekistan, free industrial and economic zone has been established in the area of Navoi city international airport in Navoi oblast for establishment of modern high-tech industries to manufacture products, which would meet international standards and be on-demand in international markets.

Navoi Free Industrial and Economic Zone (hereinafter – Navoi FIEZ) – is a part of the territory of Navoi oblast of Uzbekistan, located on a 500-hectare land plot in Karmana district, with special legal environment including preferential tax, currency, and customs regulations, simplified entry, residence, and exit procedures as well as obtaining work permits by citizens – non-residents of Uzbekistan. According to the regulations, the businesses registered on FIEZ are exempted from customs duties (except customs clearance fee) on imported equipment, raw materials, inputs, and components for manufacturing export products for entire period of FIEZ operation.

It was decided to exempt the businesses, registered in Navoi Free Industrial and Economic Zone, from land tax, property tax, corporate tax, social infrastructure development tax, single tax payment (for small businesses), mandatory contributions to the Republican Road Fund and Republican Fund of School Education.

The Decree specifies that the period of operation of Navoi Free Industrial and Economic Zone is 30 years with possible extension.

Operations of the businesses on Navoi FIEZ will be concentrated in manufacturing a wide range of high-tech products competitive in global markets including pharmaceutical products through implementation of modern highly-productive equipment and machinery, technologies and modules, and innovative technologies.

The businesses registered in the Navoi Free Industrial and Economic Zone are permitted to make hard currency payments within FIEZ based on their contracts.



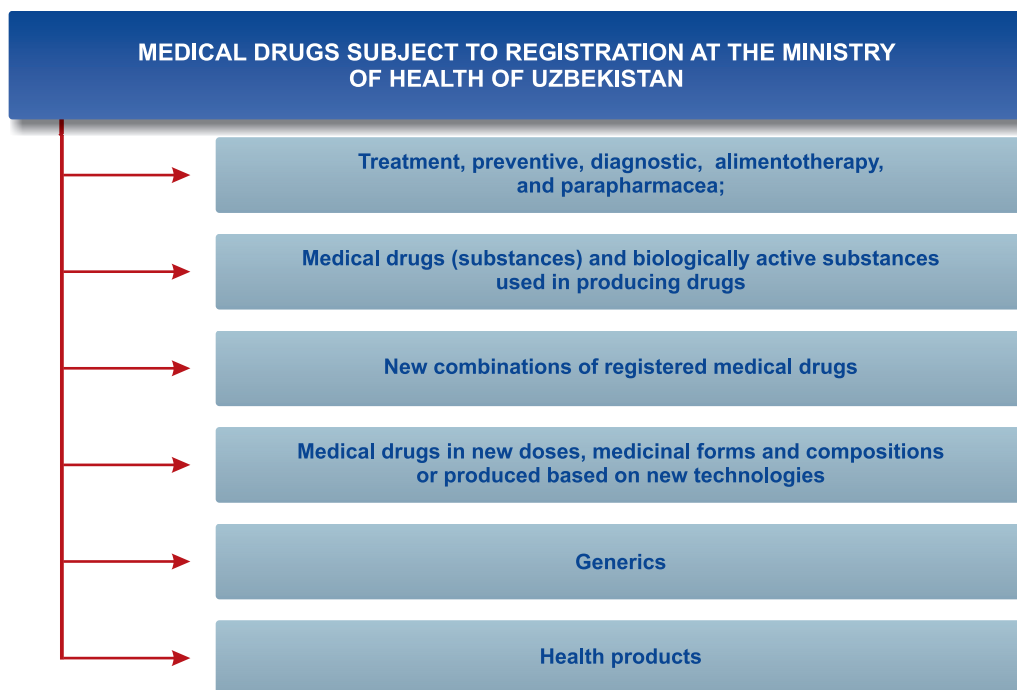
5.3. PREFERENCES GRANTED FOR IMPORTING RAW MATERIALS

Uzfarm sanoat SJSC drafted and got registered the Resolution # 1952 dated 08.05.2009, which approves the List of inputs and materials for manufacturing medical drugs and health products to be exempted from value-added tax. The List includes 199 items. In 2010 based on Concern's initiative, 414 items were included in the List (total of 613 items according to the Resolution # 1952-1 dated 28.01.2010). Because of the wider range of products manufactured and establishment of new companies, currently the efforts are underway to expand the List. According to the requests of the companies, additional 464 items were included in the List, taking total number to 1,077.

Resolution # 49 dated February 25 approved the List of Finished Medical Drugs, manufactured in Uzbekistan in sufficient volumes to meet the demand in domestic market, and their imports are not eligible for the benefits specified in the Article 211 of the Tax Code.

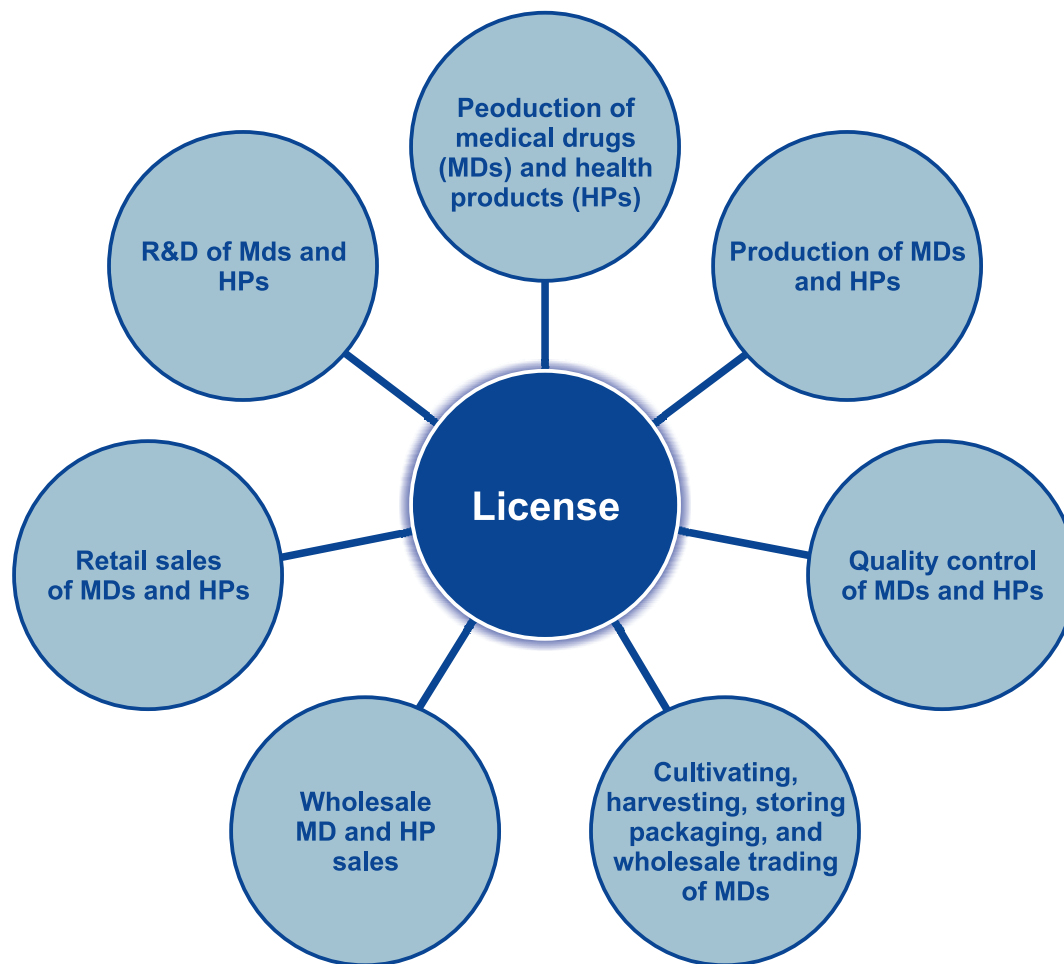
6. QUALITY CONTROL AND REGULATIONS

According to the Statute on Licensing Procedures approved by the Resolution #91 of the Cabinet of Ministers dated 13.05.2010, following medical drugs are subject to mandatory registration at the Ministry of Health of Uzbekistan:



Furthermore, following pharmaceutical activities are subject to mandatory licensing:

- a) Production of medical drugs and health products;
- b) R&D for creation of medical drugs and health products;
- c) Quality control of medical drugs and health products;
- d) Retail sales of medical drugs and health products;
- e) Wholesale trading of medical drugs and health products;
- f) Production, collection, packaging, and wholesale trading of plant-borne, animal-borne, and mineral-borne medicinal raw materials.

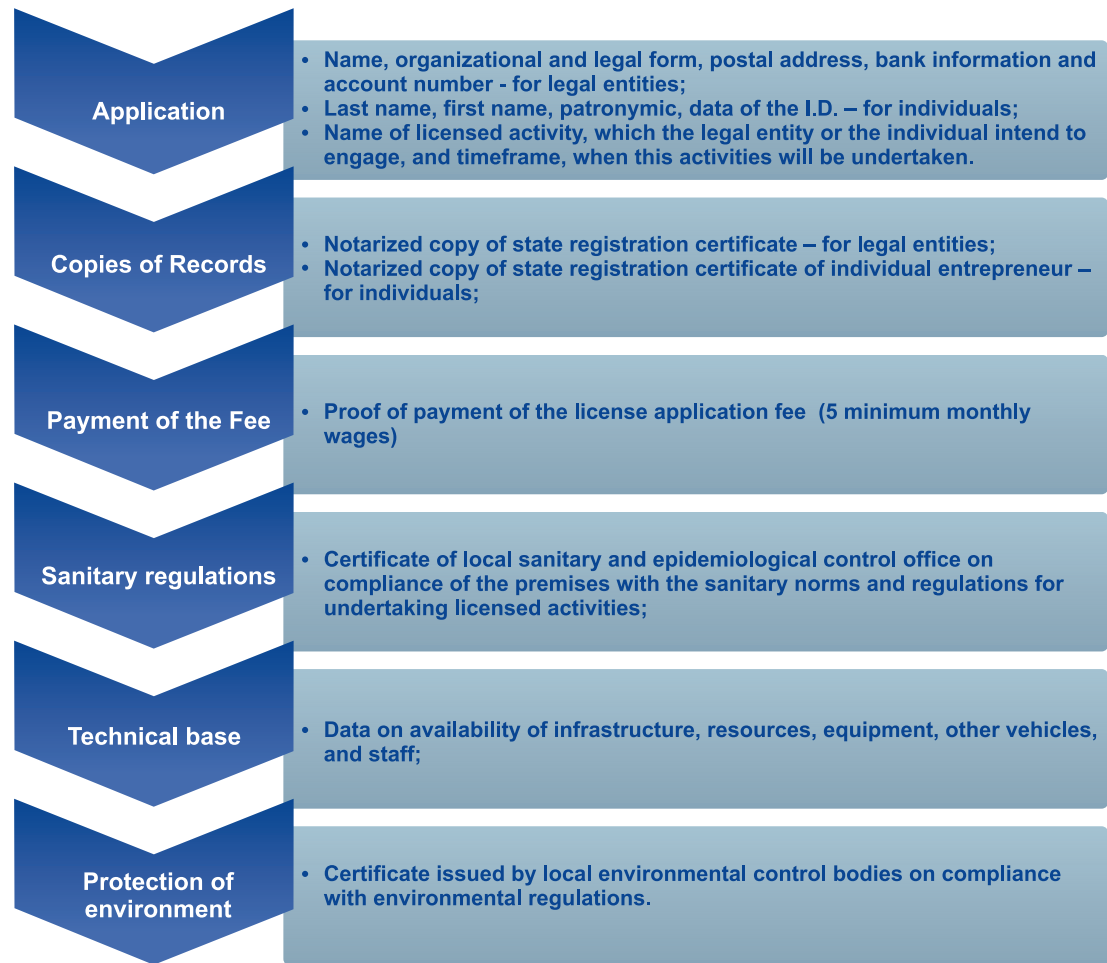


Other than line f, licenses for pharmaceutical activities are issued only to the legal entities.

Documents can be submitted by the license applicant to the Ministry of Health or sent by registered mail. In case the license is re-issued or a branch is opened, changes or amendments are made in the license agreement or a new license agreement is made.

Obtaining a license for those types of pharmaceutical activities indicated in Paragraphs a and b enables licensees to sell medical drugs and health products that they produced. Acquisition of the license enables

the licensees to store, supply medical drugs and health products and relevant information according to the statutory procedures.



An expert commission is established under the Ministry of Health to review documents on issuance of licenses, extension of their validity, and issuance of opinions.

Standard (simple) 5-year licenses are issued for pharmaceutical practices. The license can be issued for less than 5 years only based on the application of the license applicant.

Upon expiry of the license, it can be extended with the application of the licensee.

Validity of the license is extended according to the mandated procedures. The Ministry of Health exercises control over compliance with the requirements of license agreement.

State fee equivalent to ten minimum monthly wages must be paid for issuance or extension of a license. Total cost of obtaining a license amounts to:



**Fee (5 minimum monthly wages –
a bit more than USD 150 at the rate
of Central Bank of Uzbekistan)**

**State duty (10 minimum monthly
wages a bit more than USD 300
at the rate of Central Bank
of Uzbekistan)**

7. PROJECT PROPOSALS

7.1. LIST OF INVESTMENT PROJECTS PROPOSED FOR IMPLEMENTATION IN UZBEKISTAN



Galenika LLC

The Programme on Prioritized Industrial Development of Uzbekistan for 2011-2015 approved by the Resolution PP-1142 of the President of Uzbekistan on 15.12.2015, envisages implementation of 57 investment projects related to development of pharmaceutical industry. Specific investors, sources of financing, project executors, implementation schedules have been identified for 33 of those investment projects. Total amount of these projects is USD 390.4 million. Search of investors, sources of financing and project executors is underway tentatively under 24 investment projects (see, composite list of prospective projects).

Implementation of 28 investment projects is envisaged for 2011. Total amount of projects envisaged for implementation from all sources of financing in 2011 is USD 284.17 million. Of this amount, implementation of works worth USD 45.7 million is envisaged for 2011.

According to the project implementation schedules, the works on 8 investment projects were planned for the 1st quarter of 2011 including:

- Production of disposable syringes and needles at [LLC Ekoplast Systems](#), Tashkent city;
- Production of finished medical drugs at [Nobel Pharmsanoat Foreign enterprise LLC](#), Tashkent city;

№	Initiators and Projects	Capacity units/ annum	Total Project Value *	Equity	Sources of Financing		Implementation Timeframe
					Reconstruction and Development Fund	Bank Loans	Foreign Investments and Loans
TOTAL including			348.0	0,20	-	145.00	202.80
New construction							
1	Manufacturing of glass vials in Tashkent oblast	100 mln. units in	4.50			4.50	2011-2012
2	Manufacturing of anti-coagulants	2 400 ,000 doses.	18.00			9.00	9.00 2012-2015
3	Manufacturing of substances and preparations at Navoi FIEZ (cephalosporine antibiotics)	300.0 tons (100 mln. vials)	37.00			10.00	27.00 2012-2015
4	Organization of production of vitamin-enriched medical drugs in Ferghana city	2 million packs	25.00			10.00	15.00 2012-2014
5	Manufacturing of plasma-substitution solutions and blood substitutes	25.0 mln. vials	30.00			15.00	15.00 2012-2015

№	Initiators and Projects	Capacity units/ annum	Total Project Value *	Equity	Sources of Financing		Implementation Timeframe	
					Reconstruction and Development Fund	Bank Loans	Foreign Investments and Loans	
6	Manufacturing of anabolic preparations	500,000 Units	7.00			3.00	4.00	2013-2015
7	Production of preparations for treatment of bronchial and pulmonary ailments	2 000 ,000 doses	14.00			7.00	7.00	2012-2014
8	Manufacturing drugs for treatment of ophtalmological diseases	6 000,000 doses	25.00			10.00	15.00	2012-2015
9	Manufacturing of drugs for treatment of endocrinological disorders	5 000 ,000 units	12.00			4.00	8.00	2011-2014
10	Manufacturing drugs for treatment of gynecological diseases	4 500 ,000 units	17.00			5.00	12.00	2012-2015
11	Manufacturing antiviral drugs	1 000 ,000 units	15.00			5.00	10.00	2012-2014
12	Manufacturing of preparations for treatment of psychoneurological diseases	15 000 ,000 units	30.00			10.00	20.00	2012-2015
13	Manufacturing drugs for cancer treatment	1 000 ,000 units	28.00			8.00	20.00	2012-2014
14	Production of drugs for treatment of cardiovascular disorders	10 000 ,000 units	25.00			10.00	15.00	2012-2015
15	Manufacturing hormone-based drugs	1 000 ,000 units	10.00			4.00	6.00	2013-2015
16	Manufacturing anti-microbial preparations for systemic use	50 000 ,000 units	30.00			15.00	15.00	2011-2015
17	Installation of additional equipment at the pill workshop of Jurabek Laboratories JV	30.0 million packs	1.00	0.20			0.80	2012-2013
18	Modernization and rehabilitation of pilot production at Institute of Chemistry of Vegetable Substances for development and manufacturing of original plant-based substances and most popular generics according to the GMP. Establishment of a laboratory with vivarium to determine the safety of biologically active additives according to the international standards of the R&D Center of the Institute of Vegetative Substances of the Academy of Sciences	53.0 tons	5.00			5.00		2011-2014

№	Initiators and Projects	Capacity units/ annum	Total Project Value *	Equity	Sources of Financing		Implementation Timeframe
					Reconstruction and Development Fund	Bank Loans	Foreign Investments and Loans
19	Production of immunobiological drugs from biotechnological inputs (vaccines, sera, test-systems, nutrition environment) Research and Production Center of Tashkent Research Institute of Vaccines and Sera	2.0 tons	3.21			3.20	2011-2015
20	Installation of additional syringe production line at Jurabek Laboratories JV	100.0 mln. pc	6.00			2.00	4.00 2014-2015
21	Rehabilitation of pilot production facility of the Institute of Biorganic Chemistry of the Academy of Sciences of Uzbekistan to develop technologies and set up small-scaled manufacturing of pharmaceutical substances of original medical drugs and most demanded generics on GMP terms with technologies of the Institute of Biorganic Chemistry of the Academy of Sciences of Uzbekistan	45.0 tons	5.30			5.30	2011-2015

- New pharmaceutical manufacturing operation to produce medical drugs in the form of pill and liquid medications at [Ultra Health Care JV](#), Tashkent
- Installation of additional equipment in the pill workshop at [Jurabek Laboratories JV LLC](#) ;
- Production of finished medical drugs for treatment socially significant diseases at [Code Pharm Foreign enterprise LLC](#) (Navoi FIEZ);
- Production of laminant composite tubes for production of ointments at [Dentafill Plyus Private enterprise](#) , Tashkent oblast;
- Production of suspensions, sterile dry powdered antibiotics, and covered suspension pills at [Dentafill Plyus Private enterprise](#), Tashkent oblast;
- Increased production of ointments and liniments at [Remedy Group JV LLC](#), Tashkent.

Investments disbursed totaled USD 13.21 million and USD 11.65 million in the 1st quarter 2011. Respectively, with projections of raising investments worth USD 3.85 million and disbursing USD 3.75 million, which in percentage terms, led to performance of at 343.6% and 311.1% against these indicators.

Most works performed are directly related to inflows and disbursement of foreign investments. Investments worth USD 9.66 million (1038.2% of projections) and USD 8.52 million disbursed (1026.4% of projections) in the reporting period.

In the subsequent years implementation of another 18 projects for total amount of [USD 334.5 million](#) is envisaged, of which USD 0.2 million – own funds of companies, USD 105.0 million –resources of the Fund for Reconstruction and Development of Uzbekistan, USD 76.5 million –commercial bank loans, USD 152.8 million – foreign loans and investments. Below is the list of investment projects proposed for implementation.

LIST OF INVESTMENT PROJECT PROPOSALS

**LIST OF PHARMACEUTICAL SECTOR PROJECTS approved for implementation by
State Localization Programme
(Resolution PP-1048 of the President of Uzbekistan dated 27.01.2009)**

№/№		Company	Manufacturing companies		Commitments	
			Total Number	Company	Unit of Measurement	Number
I. Medical drugs						
1.	Capsules, ampoules, pills, ointments, syrups, powders in vials, etc.	3	DKHO Nika pharm	mln.packs	6,0	35%
			Remedy JV LLC		21,1	26%
			Remedy Group JV LLC		4,6	31%
2.	In vials and eye drops	1	Nika pharm DKHO	,000 units	8 896,8	35%
3.	Lysinopril, albendasole, atenol, cetyrizin, roxytropin, fukonasol, nimbslide, omeprasole, pantoprasol, beta H-ointments	1	Gufik-Avicenna LLC JV	,000 packs	242,0	50%
II. Injections and infusion solutions						
4.	Production of injection solutions	2	Farm Glass JV	mln. ampoules	49.8	54%
			Radiks ChNNP		24	42%
5.	Dry injected medical drugs, pills, capsules, etc.	2	Jurabek laboratories JV LLC	mln. soums	18 966.0	53%
			NOVOPHARMA PLUS JV LLC	mln. vials	20.7	48%
6.	Infusion solutions in polypropylene vials	2.	Jurabek laboratories JV LLC	mln. soums	447.0	66%
			Radex Private enterprise	mln. vials	1.8	32%
III. Disposable syringes, glassware, and other products						
7.	Brown-glass pharmaceutical and household ware	1	Farm Glass JV	mln.units	330	78%
8.	Disposable syringes	1	UzKoreaMedical JV	mln.units	80	48%
9.	Gaskets for syringe plunger	1			80	80%
10.	Wheelchairs	1	Saykal PTP	units	600	100%
11.	Carbite Calcium	1	F Yogdu Private enterprise	тонн	700	70%
12.	Training equipment	1	Kukonmebel LLC	units	*	60%
13.	Medical furniture	1		units	*	60%
TOTAL companies:		16	Localization rate (sectoral average)			74%

8. USEFUL INFORMATION

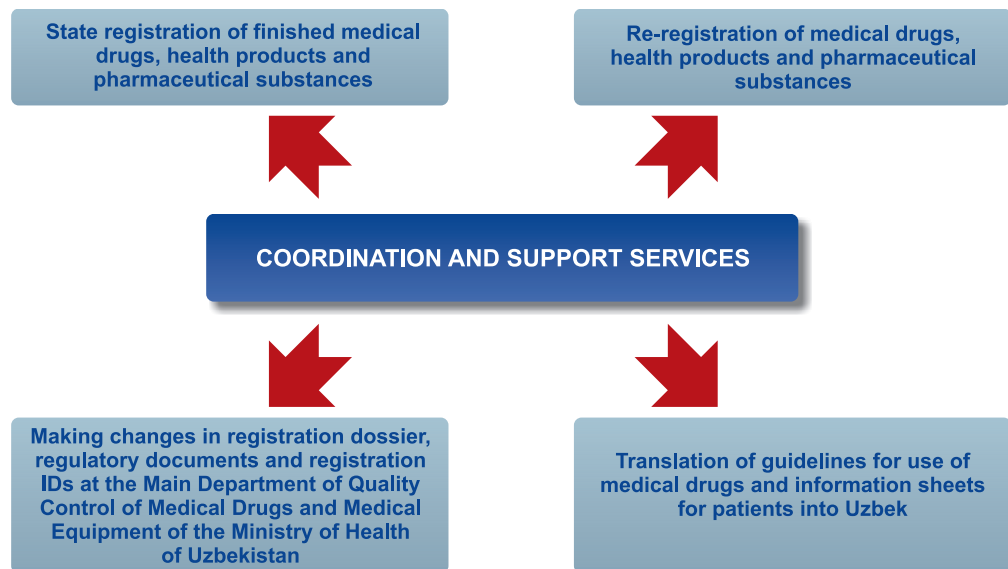
8.1. DISTRIBUTION NETWORK

Dori-Darmon JSC is a major distributor, with extensive network of pharmacies nationwide. Then come [Grand Farm Medical](#) and [Asklepiy](#).

Dori-Darmon JSC is a consistently developing wholesale and retail trade company, which has retained its lead standing in the pharmaceutical market of Uzbekistan for 85 years, providing wide range of quality pharmaceutical products to the households and domestic health institutions.

The company has its regional branches including 8 joint-stock companies and 10 subsidiaries. There are [212 pharmacies](#) and [545 pharmacy branches](#) in the system, of which 437 are in the rural areas including 343 pharmacy branches at rural health clinics.

Furthermore, there are mobile pharmacies – special vehicles with isothermic wagon with essential equipment operating in remote areas with the mandate to supply medications to the rural households in all oblasts of Uzbekistan.



For a number of years, Dori-Darmon joint-stock company has been the main executor of government programs for centralized procurement of medical drugs for treatment of socially significant diseases for health institutions of the Ministry of Health.

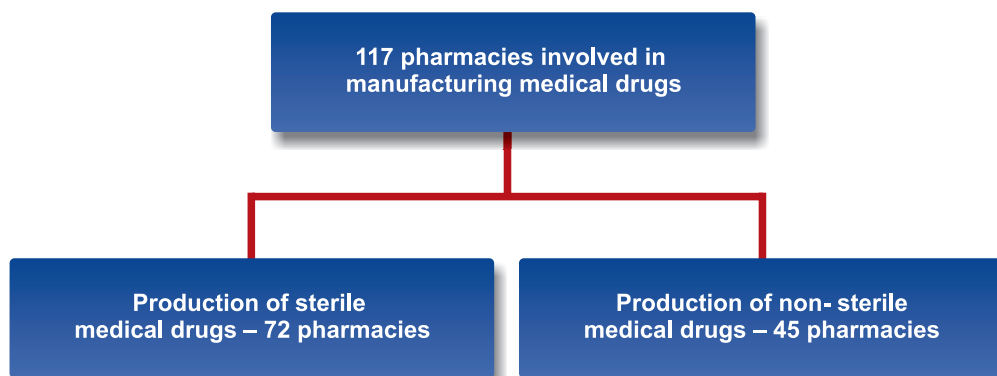
In order to improve the services provided to the residents of Tashkent city including the privileged patients, 002 reference information service of Dori-Darmon JSC has been established, providing detailed information about availability of medical drugs and health products at 25 pharmacies of the company in Tashkent.

The pharmacies of Dori-Darmon's chain account for 75% of medical drugs and health products provided free-of-charge to the privileged category of patients. The operations of Dori-Darmon are multi-faceted. *Dori-Darmon Garant* offers customs clearance and storage of pharmaceutical products at its own customs warehouse. *Dori-Darmon Invest* specializes in provision of Uzbek pharmaceutical market research services and registration of medical drugs and health products.

Stable market presence, availability of broad range of pharmaceutical products, opportunities to expand partnership contacts, promotion of modern medical drugs in the market enabled Dori-Darmon JSC to take the lead role in the pharmaceutical market of Uzbekistan after many decades of professional performance.

In addition to supply of medications to the households and health institutions nationwide, Dori-Darmon is involved in drafting regulatory documents related to the production of drug formulations at pharmacies, maintains ongoing control of the quality of drug forms produced at the pharmacies of the companies and intrahospital pharmacies.

Furthermore, Dori-Darmon offers miscellaneous marketing studies of the segments of pharmaceutical market of the country and other services.



Existence of centralized system of recordkeeping enables the managers to obtain essential information, optimizing the process of acceptance, storage, and sales of goods, coordinates warehouses and departments involved in delivery, acceptance, and sales of products in real-time.

Leadership of Dori-Darmon JSC in the Uzbek pharmaceutical market is determined not only by developed distribution network with well-arranged logistics but also by management and staff - many dynasties of pharmacists dedicated to their profession. Most of pharmacists and apothekers have advanced and first grade qualifications, and the company continues its efforts to improve the skills of its staff.

While total sales of company exceeded **70 billion soums**, intra-pharmacy production totaled circa 1 billion soums with approximately 100 medical drugs, and annual average 24 percent growth of sales.

Pharmacies- companies produce medications based on the prescriptions issued by doctors. At Dori-Darmon JSC, there are 117 pharmacies involved in production of medical drugs based on doctor's prescription. Of them 72 drugstores produce sterile drug forms, while 45 pharmacies produce non-sterile drug formulations. Drug forms produced include injected and infusion solutions, nasal and ear drops, ointments and suppositories, tinctures, decoctions, etc.

8.2. ADDRESSES AND TELEPHONES OF UZFARMSANOAT SJSC COMPANIES (DATA AS OF THE END OF 2010)

#	Company	Company Management	Company Address and Telephone
1.	NOBEL PHARMSANOAT Foreign enterprise	Courchatte Jenc Chetin	Tashkent city, Shevchenko street, 23 Tel. 233-13-01, 233-99-81
2.	NOVO PHARM LLC	Satvinder Singh	Tashkent city, Nodira street, 92-a Tel. 240-62-26, 240-62-09
3.	NOVOPHARMA PLUS JV (www.novofarma.uz)	Ibragimov, Nozir Alievich	Tashkent city, Mavlonon street, 37 Tel. 234-79-84, 234-77-87
4.	NO'KISLAKRITSA LLC	Sultanov, T.	Nukus, Karakalpakstan , Akmangit township, Darsan street, 32
5.	CODEPHARM Foreign enterprise LLC	Abdullaev, Saydullo	Tashkent, Oybek street, 12 Tel. 249-39-35
6.	OMNINVEST ASIA Foreign enterprise LLC	Barna Novak	Tashkent, M. Tarobi street, 6 Tel. 234-79-84, 234-77-87
7.	O'ZKIMYOFARM OJSC	Mansurov, Renat Telmanovich	Tashkent, T.Shevchenko street, 23 Tel. (871) 256-60-59, 252-67-47
8.	UZBIOFARM OJSC (www. novofarma.uz)	Tukhtaev, Ravshan Muratovich	Tashkent city, Mavlonov street 37 Tel. 234-79-84, 234-77-99
9.	TEXNOFARM LLC	Bolkunov, Evgeniy Vladislavovich	Tashkent city, Mavlonov street 37 Tel. 234-03-49, 234-09-99
10.	UNIVERSAL PHARM JV	Juraev, Sardor Iskandarovich	Tashkent city, F.Khojayev street 40 Tel. 120-58-95, 120-58-96
11.	REKA MED PHARM JV	Yariev, Bekzod Shukurjanovich	Syrdarya oblast, S. Rakhimov farm, M. Zakhidov street 36 Tel. 235-65-90, (3673) 57-01-26

#	Company	Company Management	Company Address and Telephone
12.	SALUBRIS VITA JV LLC	Lim, A.L.	Tashkent city, Muynak street 241 Tel. 262-15-76
13.	SAMO MP	Yunusov, Bakhtiyor Mannapovich	Tashkent, Kh. Abdullaeb street 142b
14.	TEXNOTSELL NTP LLC	Chinarev, V.G.	Tashkent city, Mavlonov street 52/14-1 Tel. 237-45-03
15.	IMMUNOMED Private enterprise	Vostokina, Svetlana Illarionovna	Tashkent city, Khumoyun street 3a Tel. 261-36-26
16.	RADIKS ChNNP (www.radiks. uz)	Karimov, Abdugafur Abduvahabovich	Tashkent, Lutfiy street, 50 Tel. 173-92-31, 173-80-58
17.	NASA Private enterprise	Ulubabayan, Sergey Aramovich	Tashkent, Bogiston street 22 Tel. 173-44-01
18.	TB FARM PLAST LLC	Bilalov, Tursunmurat	Tashkent, Chinobod street 9 Tel. 212-42-43
19.	PLAST MEDICAL BUSINESS LLC	Babakhojaev, Sherzod Abdazkhojaevich	Tashkent, Toshmukhamedov street, Alley 1, 43
20.	ARMENIA LLC	Miskirijyan, Karen Migranovich	Tashkent, F. Khujaev street 29 Tel. 120-40-05
21.	JURABEK LABORATORIES JV LLC	Kariev, Sardor Khikmatovich	Tashkent, Olmazor street 165 Tel. 150-03-03
22.	KEGEYLI BOYAN LLC	Auezov, E.S.	Khalqabad 74, Kegeyli district, Karakalpakstan Tel. (8-361) 350-01-01
23.	AGRO BIO KIMYO	Temirov, Alisher Ismatullaevich	Tashkent, Shohjahon street 48 Tel. 249-20-60
24.	AMALIY MED FARM	Miskirijyan, Karen	Xalqlar dustligi street 45, Gulistan Tel. (3672) 26-58-07, 26-27-89
25.	INNEKMED FARM	Tashpulatov, Sodir Muratovich	Tashkent oblast, Yuqori Chirchiq district, Bardankul village council
26.	DIYOR BIZNES	Kayumov, Shuhrat Muminovich	Tashkent, Zarbuloq street 35 Tel. 212-30-00
27.	NIKA PHARM LLC	Rukhman, Eleonora Rustemovna	Tashkent, Maraimov street 48 Tel. 250-42-24, 267-28-75
28.	GALENICA LLC	Malikov, Sardor Yolkinovich	Tashkent, Mirpulatov street 1 Tel. (871) 228-04-70, 228-04-71
29.	INVEST MED PHARM PLYUS LLC	Abdullaeva, Turdikhon	Tashkent city, Bodomzor Yuli street, 1A Tel. 249-39-35
30.	PLAST PHARM MEDICAL LLC	Yarqulov, Alijon Niyazmatovich	Tashkent city, Bodomzor Yuli street, 1A

#	Company	Company Management	Company Address and Telephone
31.	PRESS SYA LLC	Gaziev, Saydivali Muratovich	Tashkent, Chilanzar street 1
32.	DENTAFILL PLYUS Private enterprise	Kosimov, Abdunosir Kodirovich	Karimov street 1, Zangiata district, Tashkent oblast Tel. 218-67-45
33.	ZIYO NUR FARM Private enterprise	Irisovich, Muhammadjon Nazrullaevich	5/4Bunyodkor street, Chilanzar Tashkent Tel. 271-20-20, 271-20-30
34.	HANSANG PHARM LLC JV	Abdullaeva, Turdikhon Ikramovna	1a Bodomzor yuli street, Tashkent, Tel. 249-39-35
35.	RAHIM FARM GROUP Private enterprise	Khudaynazarov, Rakhim Kudratullaevich	3/48 Pirmukhamedov street, Tashkent city Tel. 254-06-25
36.	AND OIL NEFT LLC	Tajibaev, Tolibjon Olimovich	208 Osh street, Andijan Tel. (374) 261-09-40, 272-30-80
37.	MED GLASS JV	Kurbanov, Komil Azizovich	½ Tolariq street, Tashkent Tel. 298-63-87, 298-74-68
38.	LLC EKOPLAST SYSTEMS	Ubaydullaev, Nodirbek Rignatovich	136 a Usta Shirin street Tashkent Tel. 242-44-29, 249-60-00
39.	LLC DIRIVOR USIMLIKAR	Azimov, Abdurahmon Rahimovich	Parkent district, Tashkent province Tel. (298) 3-17-97, 2-15-87
40.	APNK BEK	Mukhtarova, Mavluda Nurislamovna	1 A Olmos street, Tashkent Tel. 298-35-22
41.	ZAMONA RANO Private enterprise	Tyan Yana Iosifovna	Tashkent oblast, Parkent district, Nomdanak township Tel. (99871)756-51-61, 756-51-62
42.	FITO OLAM Private enterprise	Abdurashidov, Bakhtiyor Ergashboevich	Andijan oblast, Jalalkuduk district, Okhunboboev Tel. (99879) 224-45-38
43.	SO`QOQ MALXAMI Private enterprise	Islomov, Jamshid Sarkorovich	Tashkent oblast, Parkent district, Suqoq village, Suqoq street 16
44.	TSITO-FARM LLC	Mirzakhakimov, Yakub Gafurovich	Karakalpakstan, Nukus city, Amir Temur street 112 A
45.	AKS DREAM LLC	Arifjanov, Nodir	Tashkent, Kukcha-Darboza Street, Kunchilik alley 37 Tel. 242-45-25
46.	ELASTIKUM LLC	Mirzaakhmedov, Mirsaid Mirsoatovich	Tashkent, Bayroktol street 15 Tel. 248-07-26, 248-07-30
47.	NPAF FarGALS LLC	Babajanova, Galina Arkadevna	Tashkent oblast, Qibray district, Matkabulov village council
48.	GULISTONPHARMTEKS LLC	Khujamurodov, Turdibek Zulumovich	Gulistan, Uzbekistan street 1A Tel. (3672)-27-59-52

#	Company	Company Management	Company Address and Telephone
49.	VAKCINA NPO	Vafakulov, Bahrom Hakimovich	Samarkand, Alpomish street 35 Tel. (3662) 21-07-67
50.	UZKFITI named after Sultanov	Mahkamov, Hursand Mansurovich	Tashkent city, F. Khujaev street 40 Tel. 262-59-22, 262-59-57
51.	Tashkent Research Institute of VS	Buglanov, Anatoliy Ayushevich	Tashkent city, Mavlonov street 37 Tel. 234-77-79, 234-77-22
52.	Vostochnaya Meditsina Research Institute	Vafakulova, Gulchehra Bahromovna	35 Alpomish street, Samarkand Tel. (3662) 21-07-67
53.	ALIAS PHARMA DP (www.alias.uz)	Bakieva, Muhayo Kahramonovna	Tashkent city, Lisunov street, Block 2, 45, Apt. 50 Tel. 234-97-26, 947-68-69

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2. Decree #609 on Establishment of State Joint-Stock Concern of Pharmaceutical Industry (Uzfarmprom) of the President of Uzbekistan dated June 02, 1993.
3. Resolution #731 on *Programme of Modernization, Technical, and Technological Re-tooling of Companies in the Pharmaceutical Sector* up to 2011 of the President of Uzbekistan dated 19.11.2007
4. Resolution-1169 on *Additional Measures to Streamline Foreign Economic Activities* of the President of Uzbekistan dated 05.08.2009.
5. Resolution-1319 on Measures for Streamlining Licensing of Pharmaceutical and Medical Practices of the President of Uzbekistan dated 07.04.2010.
6. Resolution-1442 on Priorities of Industrial Development in 2011-2015 of the President of Uzbekistan dated 15.12.2010.
7. Resolution N 283 on State Support for Development of Medical and Pharmaceutical Industry in Uzbekistan of the Cabinet of Ministers of Uzbekistan dated 14 August, 1996.
8. Resolution N 391 on Measures for Medical Drug Supply for Public Needs of the Cabinet of Ministers dated August 7, 1997.
9. Resolution № 18 on *Changes in the Regulations of Sales of Medical Drugs and Health Products at Pharmacies of the Country* of the Cabinet of Ministers of Uzbekistan dated 16.02.2010.
10. Resolution № 94 of the Ministry of Economy, Ministry of Finance, the Ministry of Foreign Economic Relations, Investments, and Trade, State Tax Committee, of the Ministry of Health of Uzbekistan dated 21 January, 2010 №, 6, ЭГ-01/10-7079, 01-02/8-16, 15, on Amendments in the List of Raw Materials for Production of Medical Drugs and Health Products exempted from VAT on Imports (agreed by Uzfarmsanoat SJSC on January 21, 2010, registered by the Ministry of Justice of Uzbekistan dated January 28, 2010 under № 1952-I).
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 - http://www.mineconomy.uz
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