

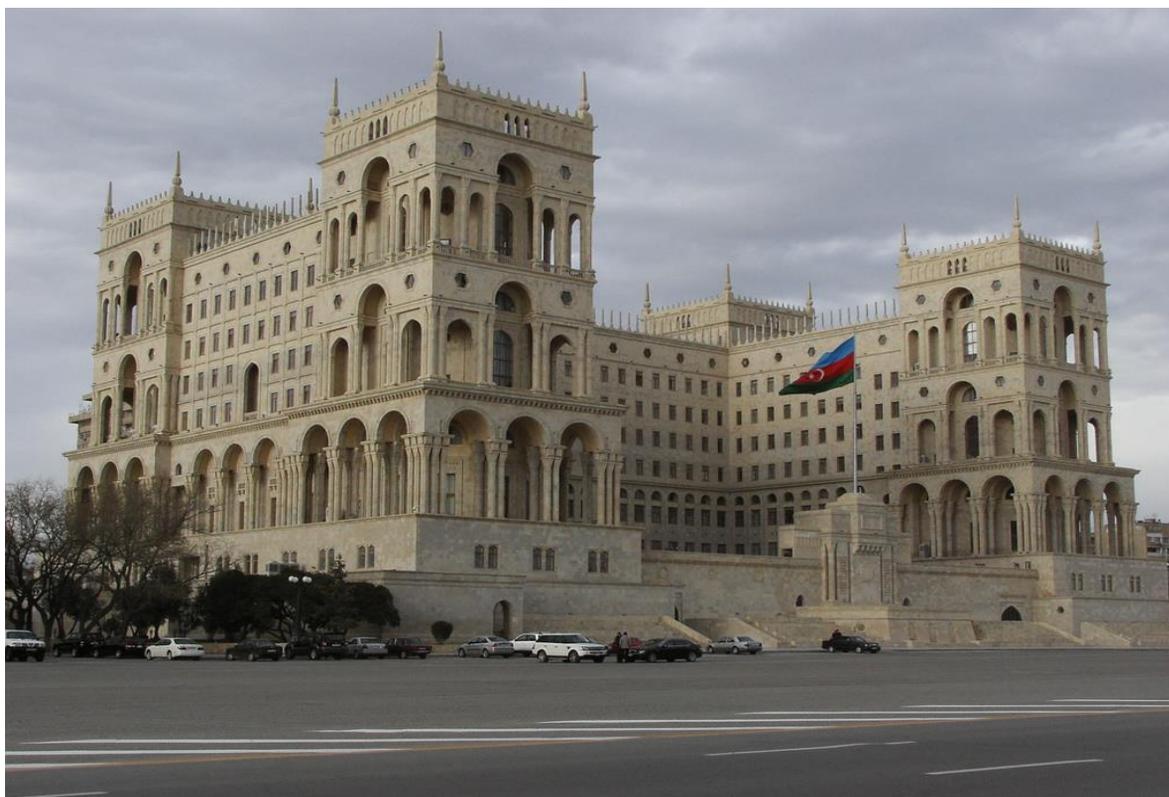
AUGUST 2013 VOLUME 01 ISSUE 01
INTERNATIONAL ECONOMIC RELATIONS
REFERRED JOURNAL

ISSN: 2298-0946, E-ISSN: 1987-6114



THE CAUCASUS

ECONOMICAL AND SOCIAL ANALYSIS JOURNAL OF SOUTHERN CAUCASUS



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Civilization, in contrast to countries there is usually a long time - usually more than millennium.

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©Publisher:

Representation of Azerbaijan International Diaspora Center in Georgia. Gulustan-bssjar

©Editorial office:

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Website: www.ridcag.com

E-mail: engineer_namik@mail.ru

©Typography:

TS. Dadiani 100. Publishing house Kalmasoni. Tbilisi, Georgia

Editor-in-chief:

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TABLE OF CONTENTS

AZERBAIJAN REPUBLIC

Internal and external economic relations	4
The forest industry and furniture production	9
Great Caucasus natural-economic zones	12
Nature, geography overview, flora and fauna	22
Baku and Vicinities	54
Lamara Qoqiauri	
Doctor of Economic Sciences, Full Professor. Technical University of Georgia.	
“21 st century – society of knowledge”	69
Evgeni Shalva Baratashvili	
Doctor of Economical Science. Full Professor. Georgian Technical University.	
“Economic Issue and Prospects of Georgia and the Southern Caucasus as link Between Asia and Europe.”	101
1Мая Капанадзе, 2Намиг Исаев	
1Тбилиси Государственный Университет. Ассоциированный профессор.	
2Грузинский Технический Университет, Докторант	
“Функционирование малого и среднего бизнеса: опыт для стран Кавказа”	106
Намиг Исаев	
Грузинский Технический Университет.	
Докторант. (Азербайджан)	
“История развития нефтяной промышленности Северного Кавказа	112
Кетеван Ширшари-Нанобашвили	
Тбилисская Медицинская Академия	
Заместитель Представителя Международного Центра Диаспора Азербайджана в Грузии.	
“Детские Стоматологические Заболевания”	120

AZERBAIJAN REPUBLIC

Internal and external economic relations

Natural conditions, resources and assortments of products produced and its amount of the country or its regions determine its economic relations. The structure of economic relations depends on the quality of products produced in the country, its amount, its supply with raw and meeting the various demands of the population.

Intra-republican economic relations are characterized by the distribution of industrial and agricultural products among cities and villages, its delivery to the industrial enterprises and population and other users. Thus, for provision of the population of cities with food, clothing, and industrial enterprises with raw materials products of agriculture and extractive industry are sent to the cities. The administrative regions dominated by the rural population get the industrial goods and foods.

Cities carry out the distributive trade and the distribution the functions. Therefore, the imported products firstly are brought to large cities, in particular to Baku. Subsequently they are delivered to the appropriate places. Transportation of imported products occupies an important place in intra-republican relations.

The volume and range of foreign economic relations are defined for Azerbaijan's position ranked in International Organization among the countries of the world. At present, the country's institutions and organizations, private institutions have trade relations with 82 countries in the world. Thanks to the expansion of trade relations with foreign countries Azerbaijan's negative foreign trade balance has declined in recent years. The volume of imports decreased and exports increased.

More than half of foreign economic relations, as well as imports and exports belong to far foreign countries. Among them Iran, Turkey, United Arab Emirates, Germany, Great Britain, the United States, Sweden, Switzerland, Italy, France, etc. can be noted particularly. 74% of goods sent to abroad from our republic constitute oil and oil products. From Azerbaijan carpets, air conditioners, electric motors, chemical industry products are exported, too. Flour, wheat, sugar and sugar powder, butter, meat, rice, potatoes, tea, cloth, clothing, furniture, appliances, machinery and equipment are imported in our country. 30-40% of Azerbaijan's foreign trade turnover, as well as imports and exports come to share of the CIS countries. Among these countries Russia, Georgia, Ukraine, Kazakhstan, Turkmenistan and Belarus are in leading positions.

Other types of foreign economic relations are cooperation in the field of financial-credit, scientific - research relations, tourism relations, material production.

Recently, a number of enterprises, joint ventures of republic are being established, re-established. For the development of tea-growing joint ventures have been established on the basis of Baku, Masally and Lankaran tea factories together with Turkey's "Beta", "Sara" and the UAE's "Intersun" companies. For reconstruction of Khachmas, Masalli and Guba canning plants the equipment was purchased from Swedish "Tetra-Pak" company. According to contract concluded between U.S. "Reynolds" and Turkish "Star" companies and Baku Tobacco Plant a joint venture was established. In Absheron peninsula, the U.S. "Coca-Cola" and "Pepsi-Cola" soft drinks companies have been working.

After Azerbaijan gained its independence in 1991, he became a member of many international organizations. In the same year he joined to the Islamic Development Bank under the auspices of the Organization of Islamic Conference.

Since January 30, 1992 our republic is member of OSCE, since March 2, 1992 - the United Nations, since September 19, 1995 - the CIS. Our republic joined the International Monetary Fund and International Bank for Reconstruction and Development in the structure of the United Nations largest financial institutions in September 1992.

Azerbaijan is also a member of the Economic Cooperation Organization and the Black Sea Economic Cooperation Organization, and many other international organizations. In January 17, 2001 the country became a member of the Council of Europe.

INDUSTRY

Industry - is one of the main areas of Azerbaijani economy. Natural resources, skilled human resources, labor resources, labor skills and potential consumers defining its development of the country is enough. However, these opportunities are not being used effectively, industrial fields producing end product is less.

There are a lot of variances in territorial organization of the industrial areas in the country. 60% of the industrial products produced in the country, 57% of the main production funds are located in Absheron economic region.

The country's economic sectors, particularly industrial enterprises are located in different industrial junctions formed under the influence of natural and socio-economic

factors. Baku- Sumgait, Ganja-Dashkasan, Shirvan-Salyan, Mingachevir-Yevlakh, Goychay-Nakhchivan, Lankaran-Shaki, Khachmaz are the major industrial networks.

Fuel and energy complex

Fuel and energy complex is based on local energy resources (oil). The main sources of fuel: oil and gas, hydropower resources of rivers, sun and wind. Oil (mainly spread in Neozoic layer) industry

More than 100 years the oil is extracted with technical equipment and rich experience is collected in this area. The first oil fields drilled in Azerbaijan include: Balakhany, Sabunchu, Ramana, Surakhany, Bibi-Heybet, Binagadi, etc. During World War II Azerbaijan produced 75% of Soviet oil. In 1949 "Oil Rocks" was established in the sea, in the 70-es "Sangacal-Sea" and "Duvani-sea" was drilled.

Kura River depression: there are Kurovdag, Muxadkhanlı (Mesozoic layer), Mollakend, Kamaladdin deposits. In 1998, 11.4 million tons of oil extracted in Azerbaijan. Although on-shore oil reserves decreased, but a lot of new oil fields were discovered in the Caspian Sea ("Azeri", "Gunashli", "Chirag", "Shahdeniz", "Karabakh", etc.). Among them the largest is the "Azeri" field, which is rich both with the oil and gas. 90 oil products distinguished with structure in the world are produced from Azerbaijani oil. The most important of them is oil, gasoline and oil, etc. Oil from Azerbaijan are being transported by the Baku-Novorossiysk, Baku-Supsa (Georgia) and Baku-Tbilisi-Ceyhan (Turkey, since 2006) pipelines.

Gas Industry

90% of the gas in Azerbaijan is extracted from from the Caspian Sea off-shore. The largest onshore fields are the Karadag-Gobustan, Gurgan-Zira and others. 6 billion m³ of gas extracted in the country. The largest natural gas fields in the Caspian Sea are "Shah Deniz". In the future, the Azerbaijani gas will be sold to Turkey through the Baku-Erzurum gas pipeline.

Electric Power

Azerbaijan is rich in power base. Total capacity of all electrical stations is 5 million kwt. The most of them, 80% is produced by TPP, and 20% by the HPP. Annually 3300 Kilowatt per capita of energy is produced. TPP-s are divided into 2 parts: 1. SDPS (state district power station); 2. TPC (thermal power center) – it produces the steam besides the electricity. TPC-s were mainly established in Baku, Sumgait, Ganja, Mingachevir, Shirvan. The most powerful TPC (1.2 million Kwt) is the first open state district power station in Shirvan and Europe. The first TPC ("Red Star" and Sabunchu) have been constructed in Baku. Then 2 TPC were built in Sumgait. Then the thermal

power plant was built in Ganja and Mingachevir. Latest state district power station established in the north of the Absheron peninsula, "The North" TPC.

In addition, the HPS (hydroelectric power stations) have been operating in Azerbaijan, which are built on rivers with hydropower resources. The first hydroelectric power station was built in country in Qalakand of Gadabay region. Cascading HPS were built on the Kura River, too. The most powerful (360 thousand kW) HPS is Mingachevir HPS. The water reservoir here serves for irrigation and regulation of stream, and also to prevent floods. Varvara HPS in Yevlakh, Shamkir HPS, Yenikand HPS, Sarsang (Tartar) HPS, Araz HPS do not use full of hydroelectric power of the Azerbaijan's rivers. The electricity network of Azerbaijan is coordinated with Russia, Georgia, Iran, Turkey. There is ecologically clean, long-term, wind, solar and geothermal (hot water) sources in the country.

Mechanical engineering and chemical industry (cooperative)

Machine-building complex covers energy, electrical engineering, radioelectronics, instrument-making, machine-tool construction, transport, agriculture, etc. fields of engineering, which interact with each other. The machine-building is ranked 1st for number of employees, for the value of manufactured products among the industries. Although the demand for various products of the engineering industry, many areas of modern engineering do not developed. Until the last years the engineering industry of Azerbaijan specialized in the field of petroleum engineering. It produces ¼ of the gross output in this area.

One of the largest enterprises in the oil machinery is "Bashneftkimmash Union". This enterprise exports its products to 40 countries. Stationer platforms manufactured in Baku deep sea water piles plant located in Sahil settlement, it is possible to drill well in 200-300 meter of dept in the Caspian Sea. Other large enterprises related to the oil machinery of Azerbaijan are plant named after Sattarkhan, Keshla engineering plant, Binagadi clay and steel plants. After construction of electric plant in Baku, Azerbaijan does not purchase from abroad the cast steel more. For recent years in addition to oil machinery electrical engineering, electrical devices, radioelectronics etc newer areas were developed. The field of electronics requires highly skilled personnel and raw materials. The largest electrical engineering companies in Azerbaijan are as follows: in Baku: air-conditioners, refrigerators, battery, lamps, transformers manufacturer factories, in Shamakhi "Star" TV, cable plant in Mingachevir, Salyan water heaters plant, etc. Radio electronics factories in Baku: ECM plant, the Baku radio, "Nord", "Azon", etc. plants. Transport machinery are the car and shipbuilding plants. In shipbuilding plant in Baku small tugs are manufactured. In Baku car plant cargo and passenger motor vehicles are manufactured. In Ganja automobile plant "Oka" cars and

"Belarus" tractors are manufactured. In a car plant in Shamakhy "Azsamand" and "Aziz" cars are manufactured.

In Zayam and Mingachevir agricultural machinery are being manufactured. For the volume of products manufactured the chemical industry of Azerbaijan occupies the 3rd place after the fuel and energy industry among the heavy industry and machine-building. The chemical industry of Azerbaijan functions based on oil and gas, table salt, iodine-bromine mineral (bore) water, non-ferrous metal waste and partly on the basis of imported raw materials. The 1st chemical plant in Azerbaijan was built in 1879. But Sumgayit is Azerbaijan's largest chemical center. In chemical facilities synthetic rubber, car tires, plastics, synthetic fiber, mineral fertilizers, soda, chlorine, iodine, washing powders, soap, medicines, etc. are produced. There are favorable conditions in Baku-Sumqayit industry junction abundant with raw materials, labor force and energy for the development of the petrochemical industry. Baku's oil and gas plants, oil and the New Baku refinery manufactures oil, diesel fuel, lubricating oils, etc.

Azerbaijan's largest chemical enterprise is "Kimyasanaye" union in Sumgayit. Other large-scale chemical plants of Azerbaijan in Sumgayit are "Superphosphate", "Household Chemistry", "Organic Synthesis", "Synthetic rubber", "Tyre" in Baku; Salyan "Plastics"; Ganja, soap, paint and varnish; pharmaceutical entities in Baku, Boyuk Shor, Bakikhanov settlements, Neftchala "iodine-bromine" plants. Chemical plants manufacture cheap products saving the valuable natural raw material. However, these plants pollute the ecology (air, water, soil). It is possible to solve the problem by installing modern cleaning technology, equipment and plants.

METALLURGY

The country has the following opportunities for the development of metallurgical industry: 1 Availability of abundant and diverse raw material base and various metal wastes. 2. Availability of local energy resources - oil and natural gas. 3. Availability of industrial and construction sectors using metal. 4. An experienced staff and labor resources. 5. The possibility of creation of new areas on the basis of existing material-technical base. Metallurgy is divided into 2 parts: ferrous and non-ferrous metallurgy.

Ferrous metallurgy includes iron ore extraction and refining, iron and steel melting, rolling and ferroalloys manufacture. The largest centers of ferrous metallurgy are Sumgayit, Baku and Dashkesan. Dashkesan is the largest mining industry center of Azerbaijan. In Dashkesan ore purification plant is operating near the iron ore deposit. Then the ore from this plant is sent to Georgia's Rustavi metallurgical plant. Because there is no coke coal for melting the iron ore in Azerbaijan. And in tube-rolling plant in

Sumgait the last product of ferrous metallurgy pipe and rolling are manufactured. The creation of the tube-rolling production is associated with the development of oil and gas industry. In connection with the development of mechanical engineering and metal waste the secondary metal processing plants and small metal shops function on the Absheron peninsula. The role of bentonite clay field in Dash Salahli village of Kazakh region is big in development of ferrous metallurgy. This clay is used in steel melting. As seen from the above the ferrous metallurgy passes through the following steps: mined iron ore is refined and cast-iron-steel-rolling.

A strong enough electric power alunite, molybdenum, mercury, polymetallic ore deposits for the development of non-ferrous metallurgy is available in Azerbaijan. Non-ferrous metallurgy consists of the following entities: Sumgayit and Ganja aluminum plants, non-ferrous metals processing plant in Baku and Ganja, Sumgayit aluminum rolling mill. As a result of abundant raw materials and electric power the non-ferrous metallurgy industry has developed more in Absheron, Ganja-Kazakh regions; but it is possible to develop in the future in Sheki-Baku, the Upper Karabakh and Kalbajar-Lachin regions. Aluminum industry in Azerbaijan developed more in Sumgait, Ganja and consists of stages of the production of aluminum oxide and aluminum. Thanks to Zaylik alunite field in Dashkesen and plenty of electric power the plant has been operating in Ganja. The factory manufactures the aluminum oxide, sulfuric acid, potassium fertilizer, etc. Powder metallurgy is the youngest in the field of metallurgy. The plant has been operating in Baku manufacturing fabricated metal products from various scraps. There are all conditions for the development of metallurgy: abundant raw materials and energy, highly qualified staff. As metallurgy consumes much raw material and fuel, so such type of plants are built in vicinity of raw base and sometimes among them.

The forest industry and furniture production

Azerbaijani forests are not for supply. There are mainly the sanatorium, soil and field, water and road forests. Forest industry is divided into: mechanical processing (wood, ply, construction wood) and chemical processing (paper - cellulose). The mechanical process dominates in Azerbaijan, i.e. the furniture industry - the wood, log required, is imported from Russia. Furniture factories mainly are located in consumer areas (Baku, Ganja, Sumgayit, Nakhchivan, Baku, Shaki, Lankaran, such as large cities).

Local solid oak, beech, hornbeam, walnut, mulberry, chestnut wood are used for manufacture of furniture, doors, windows, frame, parquets.

Manufacture of construction materials and constructions

The building industry consists of 3 main areas:

1. Mineral construction raw materials - sand, gravel, stone, marble.
2. Masonry materials - cement, lime, gypsum.
3. Construction materials - concrete and iron - concrete wall material, panels.

Construction has developed mainly in the Absheron peninsula. There are a lot of stocks of stone, glass, construction sand, and ceramics. Sawn stone is manufactured in Gozdak, Shuvalan, Korgoz quarries. In Garadagh - cement plant, in Baku – ferroconcrete construction plant, asbestos, brick, plants are located.

The second place in construction comes to the Ganja - Kazakh economic region. In Ganja - house-building and industrial construction plant, in Kazakh - reinforced concrete, in Dashkesan and Tovuz - a variety of construction plants are available.

The third place occupier by Mingechevir -Sheki region. In Mingechevir reinforced concrete, In Sheki, Baku, Yevlakh - brick, pottery, lime are manufactured.

The fourth is for economic region of Karabakh. Stone and reinforced concrete were manufactured in Agdam, Khankendi, Shahbulag.

Fifth place is fro Nakhichevan with glass manufacture.

Light and food industry

The leading area in Azerbaijan is light and food industry.

Light industry is in second place for the volume of products. 80% of manufactured industrial goods belong to textile industry. Mainly cotton, silk, wool fabric is woven in country.

The wool raw historically was much in Azerbaijan. The wool's share in textile is 11%. It serves to weaving of local carpet and very old area. Carpets woven in Guba, Shirvan, Ganja, Kazakh, Baku, Karabakh, Nakhchivan and Ganja in particular are the famous carpets. Cotton also serves carpet weaving. Threads are dyed with local color.

Silk fabric is a traditional area. In this area, Sheki, Shamakhi, Ordubad, Basqal (Ismayilli) are distinguished. The main raw material of sericulture is silkworm. Silk and cotton historically have been carried out from Azerbaijan to European markets on the Great Silk Road.

Cotton cloth manufacture has historically dominated by primitive treatment and weaving. At present, in addition to cotton cloth factory there are 14 cotton-refining plants. In this field Ganja and Mingchevir cities are distinguished in particular.

Clothing industry has developed mainly in the big cities. At the same time there are shoe and leather plants in Baku and Ganja.

The food industry constitutes 30% of Azerbaijan's industry. Its specialized fields are wine making, fruit and vegetable-canning, meat, milk, etc., is

Wine-making is the most profitable area of the food industry. The initial production is carried out in grape growing regions and filling in bottles in Baku, Ganja, Shamkir, Goychay, and Nakhichevan.

Canning industry - is located in vegetable growing and gardening regions. The largest plant of fruit and vegetables is in Khasmass. Furthermore, there are canning factories in Guba, Gusar, Khudat, Ordubad, Gakh, Lankaran, Ujar, Goychay. Nut factory in Zagatala, the plant of olive canning operates in Mashtaga.

Meat and dairy industry - mainly located around the city. There are meat factories in Baku (Khirdalan meat), Ganja, Sheki, Mingchevir, Shirvan, Baku and Nakhchivan.

Fishing - based on the Caspian Sea and the Kura River. The largest one is located in the mouth of Kura River, the Banka fish plant. Here sturgeon and black caviar are processed. In addition, the fish plant is available in the settlement of Hovsan in Baku. Fish plants function also in Lankaran, Khudat (Khachmaz), Mingchevir. Fisheries were established in order to reproduce fish. Fish is grown in Sansu and Hajigabul lakes, too.

The economic division

Different regions of the country differ from other in respect of level of development for its natural conditions, resources, economy and territorial structure of the area, population characteristics, historical development of and settlement of population. Therefore, only in a certain part of the country to produce this or any other product and develop the service areas is relatively effective compared to other regions. As a result, the formation of labor-territorial division takes place.

As a result of the labor-territorial division of the economic regions, the specialization direction of the farm area is taken as the key factor.

The economic region is territories distinguished according to the directions of specialization of economy in different areas throughout the country.

Each economic region has specific economic, geographic location, natural conditions, natural resources, economic structure and the national composition of the population. Economy specialization and complex development are the main characteristics of economic region.

According to the economic division of 1995 the republic is divided into 10 economic regions: Absheron, Guba-Khachmaz, Sheki-Zagatala, Mountainous Shirvan, Ganja-Kazakh, Upper Karabakh, Kalbajar-Lachin, Aran, Lankaran-Astara and Nakhichevan are the existing economic regions in the country. They were combined into 5 natural-economic zones. Natural-economic zones are compatible with the physical-geographical regions.

Great Caucasus natural-economic zones

Greater Caucasus region is the most contradictory region. Due to big internal differences it is divided into the following economic regions: Absheron, Guba-Shaki, Upper Shirvan, Sheki-Zagatala.

Absheron economic region

Absheron economic region includes the subordinated part of Baku, Sumgait, Absheron and Khizi administrative regions.

The economic region is located in the east coast of the Caspian Sea, in a very favorable economic and geographical position. The economic region is considered as the main transport hub in republic.

Absheron is an oil kingdom. The oil sector is in advanced position in the development of the industry. The region provides 60% of the total industrial output of the republic. All production areas of non-ferrous metal and petrochemical industries have been established here.

The new and rapidly developing areas of Azerbaijani machine-building like instrument-making, electrical engineering and radioelectronics were concentrated in Absheron economic region.

The base of agriculture in Absheron economic region comprised of the milk-dairy cattle-breeding, poultry, sheep, vegetable, horticulture, viticulture and dry-subtropical fruit growing.

Sanatoriums have been established on the basis of rich natural balneology resources of the Absheron peninsula. At the same time that it is the only economic region, which has no natural fresh water. Absheron receives water from Shollar, Kura-

Baku and Samur-Devechi channels. It is expected to be put in use the new pipeline from Qabala.

Guba-Khachmaz economic region

The territory of the economic region consists of Guba, Gusar, Shabran, Siyazan and Khachmaz administrative regions. Guba-Khachmaz is located in the north-west of Absheron, on the shores of the Caspian Sea. In connection with gaining of the independence by the country the geographical position of the region's economic importance is growing. Communication lines connecting Azerbaijan with Russia pass through this region.

Oil, natural gas, shale, sand, gravel, clay are main natural resources of the region.

Agriculture is the basis of the economic region. Vegetable-and fruit-growing areas are its main specialization areas. For vegetable harvesting Khachmaz and Gusar regions, and for fruit crops Guba, Gusar and Khachmaz regions are leaders. Besides, in Khachmaz, Siyazan and Shabran regions grapes, and in Gusar region potatoes are cultivated. Wheat is planted in every part of the region populated.

Lower areas are centers for milk-meat cattle breeding, and mountainous regions of sheep herding. Alternation of summer and winter pastures here creates favorable conditions for the development of the sheep herding. There are poultry facilities in Siyazan, Charkhi and Davachi.

Sheki-Zagatala economic region

The economic region includes Balaken, Gakh, Gabala, Zagatala, Oguz, Sheki administrative regions and Sheki city.

Sheki-Zagatala is located in the north of the republic, at southern slopes of Great Caucasus Mountains. The main natural resources of Sheki-Zagatala economic region is polymetallic ores, sand, gravel, clay, gypsum, etc found in the basin of Filizchay. Forests in the slopes of the mountains spread on 27 % of the region's territory. They have supply importance.

Sheki-Zagatala is one of the key regions of the rest-sanatorium. The favorable natural conditions, mineral springs, forests, historical and architectural monuments as well as an important recreation are important rest and tourism centers.

Industrial enterprises located in Sheki-Zagatala mainly process agricultural products. Light industry is represented by the silk and textile industry in Sheki. Other

sectors of the industry based on local raw material base are Zagatala furniture factory, brick factory, etc.

Alazan-Ayrichay Valley, the foothills of the Caucasus ridge areas, lowland Ajinohur are important agricultural areas. Tobacco cultivated in these areas, fruits, nuts, grain, cocoon are the key areas of agriculture in the region. According to the tobacco crops regions of Sheki and Zagatala are leaders, and for fruit harvest - Sheki, Oguz, Balakan, Zagatala, Gakh districts are ahead. In Sheki, Baku, Gabala regions grain harvesting is key areas of agriculture.

Mountainous Shirvan economic region

The territory of the economic region includes Shamakhy, Ismayilli, Aghsu and Gobustan administrative regions.

Mountainous Shirvan is located in west of Apsheron, in the south-east foothills of the Great Caucasus Mountains. Due to the closeness to highly developed Absheron economic region from a socio-economic point of view, the geographical economic position of Mountainous Shirvan is favorable. Food and light industry has been developed.

The economy of the region is dominated by agriculture. Non-irrigated farming is the key area. Viticulture, grain growing and livestock are well developed.

Lesser Caucasus natural-economic zones

In connection with diversity of landscape, natural resources, climate and etc it is divided into three economic regions:

Ganja-Gazakh, Kalbajar-Lachin, the Upper Garabakh.

Ganja-Gazakh economic region

The territory of economic zone includes Gazakh, Aghstafa, Dashkesan, Gadabay, Goranboy, Samukh, Geygol, Tovuz and Shamkir administrative regions. Here Ganja and Naftalan cities of republican subordination are located.

It is located in the west of the republic, at on railway, roads connecting Azerbaijan with Georgia and the Black Sea coast, in very favorable economic and geographical position. For economic and socio-cultural potential, Ganja-Gazakh ranks the second after Absheron economic region.

Oil, natural gas, iron ore, alunite, limestone, bentonite clay, marble, gypsum, zeolite, cement raw materials, etc. are the main underground reserves of the region. Part of the Kura River, flowing from here is rich in hydropower resources, and these

opportunities are widely used. Gey-gol-Hajikend zone, the northern slopes of Murovdagh, Naftalanin treatment oil, around of Mingachevir water reservoir, the mineral springs, forests are natural-recreation reserves of economic region.

On machine-building fields the electrical devices, communication equipment manufacturing, repair of motor vehicles and agricultural machinery has been established in the economic region. Heavy industry sector has an important role in the structure of the economy of this region. There are facilities for wood processing, construction materials, the production of consumer goods in settlements.

In light and food industry enterprises, mainly the local raw materials are processed.

Agriculture has been developed in the region. Viticulture, potato growing, grain growing areas are main specialization areas of the region in agriculture. For grapes harvesting Gazakh, Aghstafa, Shamkir and Samukh regions are in leading position and for potatoes harvest Gadabay, Shamkir and Tovuz regions. For grain harvest Goranboy and Shamkir regions are ahead. Here, cotton (Goranboy), horticulture, vegetable growing, fruit growing and cattle breeding was developed as well. Jeyranchol is one of the most important winter pastures of the republic.

Kalbajar-Lachin economic region

Economic region includes Kalbajar, Lachin, Zangilan and Gubadly administrative regions.

Kalbajar-Lachin is located in the south-west of Azerbaijan, at Garabakh plateau and in the basin of Hakari River. The economic- geographical position of the region is not suitable.

Gold, mercury, chromium, construction materials (marble, perlite, copal) are the main underground resources of the region. Here Istisu, Minkend, Tutquncay mineral springs, climate-balneal conditions, mountain forests may be used for resort-recreational purposes.

Sub-alpine and alpine summer pastures on the high mountain areas and hayfields have big significance. Meadows and areas suitable for beekeeping.

At one time, Kalbajar-Lachin was one of the livestock zones of the republic. Tobacco-growing, viticulture, fruit growing, grain growing areas are important fields of planting. The industrial enterprises are based on the processing of these raw materials. Meat and dairy products were processed in the economic region, carpets were produced.

Upper Garabakh economic region.

The economic region includes Aghdam, Tartar, Khojali, Khojavand, Fizuli, Jabrail, Shusha administrative regions. Khankendi and Shusha cities of republican subordination are located here.

Upper Garabakh is located in the south-east of natural-economic zone of the Lesser Caucasus, between Kalbajar-Lachin and Aran economic regions. In the south the border of the economic region with Iran passes along the Araz River. The region has favorable economic and geographical position.

In the mountainous part of Garabakh, in regions dominated by Armenians Nagorno-Karabakh Autonomous Region was established in 07.07.1923, and its was liquidated in 26.11.1991 in connection with the war situation and the Armenian separatism.

Polymetallic ores (Mehmana field), oil, natural gas, various construction materials (marble, cement raw material, building stone) are the main mineral resources in Upper Garabakh. Mineral springs (Turshsy, Sirlan), climate-balneal conditions, forests and other natural and historical-architectural monuments can be used for rest and treatment.

Viticulture, grain, tobacco, cotton and livestock are the main agriculture areas in Upper Garabakh. Fruit, potatoes, garden-grown vegetables are grown in the region.

Wine-making, canned products, other agricultural products, food processing industry are the main directions.

Kur-Araz natural-economic zones

Aran (Kur-Araz) economic region

The region includes the administrative districts located on the Kur-Araz lowland. They are Agdash, Agjabedi, Beylagan, Bilasuvar, Barda, Zardab, Imishli, Yevlakh, Kurdamir, Goychay, Neftchala, Saatli, Sabirabad, Salyan, Ujar and Hajigabul regions. Republican subordinated Mingachevir, Yevlakh and Shirvan cities are also situated here.

Aran occupies the central and eastern parts of the republic. It reaches the east of the Caspian Sea. Aran economic region located along the main transport lines of national importance along the Kur and Araz rivers has a very favorable economic and geographical position.

The main underground resources of the region are oil, natural gas, iodine and bromine mineral water, various construction materials (sawn stone, sand, gravel, etc.). Here, an abundance of sunlight, hot summer allows heat loving plants (cotton, grapes, wheat), tasty and nutritious melons and vegetables, dry subtropical fruits (quince, pomegranate and other stone fruits) to grow. As winter passes mild and rainy in the lowlands the winter crops are planted. However, due to the dry climate in summer, farming is possible only under irrigation.

Industry is highly developed in Aran economic region. Oil and natural gas deposits are located in Shirvan, Salyan, Neftchala, Kurdamir, Imishli and Zardab. State regional power stations in Shirvan and Mingachevir, hydroelectric power stations in Mingachevir and Varvara function. Therefore, the electric power is one of the advanced and specialized sectors of economy. Chemical industry enterprises have been operating in the cities Mingachevir, Salyan and Neftchala. Plastics plant functions in Salyan, and iodine-bromine plant in Neftchala.

Mingachevir, Shirvan and Salyan are the major centers of engineering in this region. Here, enterprises manufacturing construction materials, producing food industry products, consumer goods had been established.

Aran economic region is the important agricultural region of the republic. Cotton, grain, viticulture, dry-subtropical fruit-growing, horticulture and animal husbandry are specialized areas of agriculture.

Lankaran natural-economic zone

Lankaran-Astara economic region

The economic region includes Astara, Yardimli, Lerik, Lankaran, Masalli, Jalilabad administrative regions and the republican subordinated city of Lankaran.

Lankaran-Astara is located in the southern borders of the country, on the shores of the Caspian Sea. Transport lines connecting Azerbaijan with Iran, pass here. The region's economic position is very favorable from the geographical location and very important from strategic point of view.

There is a small amount of saw stone, sand, clay, gravel, and other construction materials in Lankaran-Astara region. The humid subtropical climate of area, sufficient sunlight allows growing here citrus fruits, tea, melons, vegetables, grapes, tobacco.

The industrial enterprises of the economic region based on growing agricultural products cultivated here and processing of the fish caught from the Caspian Sea.

Fresh vegetable, humid subtropical (citrus) fruit-and tea-growing are specialized areas of agriculture in Lankaran-Astara economic region. Here, tobacco, rice, cereals, grapes are cultivated as well.

Nakhchivan natural-economic zones

Nakhchivan economic region

The economic region covers the same name Autonomous Republic. It is divided into Babak, Ordubad, Sadarak, Shahbuz, Yesterday, Julfa and Sharur administrative regions. Nakhchivan, Ordubad, Julfa have a status of the city subordinated to autonomous republic.

Polymetallic ores, copper, molybdenum, rock salt, construction materials (marble, travertine, stone), dolomite, gypsum, there are important natural resources of Nakhichevan. Fertile lands of lowlands, plenty of solar is suitable for growing of heat loving plants, delicious fruit, melons and vegetable crops.

For irrigation of large areas the reservoirs on the Araz River and its tributaries are used. In the forests grown in valleys of the river mountains there are not reserves for supply of wood. Forests occupy 20 thousand hectares of the region. It is equal to is equal to the 0.5% of AR.

The summer, pastures and hay fields in the upper parts of the mountains have no such importance. Mineral springs, mountain lakes (Batabat, Gey), natural (Ilandag) historical monuments in Nakhichevan are beautiful places for recreation and tourism.

The industry of Nakhichevan is one of the highly developed economic regions. Power (Araz water intake), electrical equipment (Nakhichevan), aluminum cookware, furniture and bottles (Nakhichevan), car repair (Shahbuz) are the leading sectors of the industry. From industry of construction materials the reinforced concrete constructions (of Nakhchivan, Sharur), coating materials' plants, sand-gravel quarries are functioning there.

There are textile (Nakhchivan, Julfa), silk (Ordubad), carpet weaving, knitting (Nakhichevan), enterprises from light industry in the economic region.

Canned food-processing industry (Ordubad, Sharur), tobacco-fermentation, mineral water bottling, meat processing, fish plant (Nakhichevan, Shahbuz, Sharur) enterprises function in food industry.

The main areas of agriculture viticulture, tobacco, fruit and grain farming was developed in the Nakhichevan Autonomous Republic. Here, sugar beet, henna,

vegetables, and flowers are also grown. Meat-dairy, cattle-breeding, sheep meat, wool and milk, silkworm breeding, apiculture are the main directions of husbandry.

At the moment only direct air transport is available with Nakhchivan. City airport is of international level. Julfa city is one of the transport junctions.

Nakhchivan city is important industry, administrative, social and cultural center of Autonomous Republic. Most of the industrial enterprises in the economic region is located in this city. Julfa city is one of the major industrial and transport networks of the republic.

AGRICULTURAL

Agrarian - industrial complex (AIC).

The main purpose of the AIC is to supply population with food and food products, cattle breeding with feeds, the industry with the raw material. The AIS is interaction of agriculture with the industry. There are strong opportunities for the development of agriculture. The heat and light is enough in the republic, and it allows taking the product in 2 times, allowing the use of pastures throughout the year. Most of the production is on irrigated lands. 61% of the agriculture is provided by farming, and 39% by the cattle-breeding.

Grain planting is the main field in agriculture. 20% of the demand for grain in republic is met locally and rest are taken from outside. The average productivity per hectare is 17 centners. Grain planting is divided in non-irrigated and irrigated. Non-irrigated (rain irrigated) wheat production is mostly on the mountainous regions. Irrigated grain planting was developed in the lowland (plain) regions. In grain planting Sheki, Ismayilli, Shamakhi, Jalilabad, Sabirad, Agjabedi, Balakan, Beylagan regions distinguished especially.

Fodder crops are the second field after grain. It is a base of cattle breeding. Forage crops include barley, maize, sunflower, sugar beet, rice, etc. According to barley is mainly planted in Sheki, Jalilabad, Agjabedi, etc., corn in Sheki, Zagatala, sunflower in Sheki, Zagatala, Ismayilli, Shamakhi, sugar beet in Nakhichevan, rice in Lankaran. (Rice forgotten for a long time).

Agricultural crops - the majority of income in the industrial complex. Technical planting includes the following:

Cotton - the strategic important, very profitable area. It is mainly grown in the Kur-Araz lowland.

Tobacco growing – II grade technical plant, most is the commodity. In particular it is grown in Sheki, Oguz, Gabala, Zagatala, Balakan, Masalli, Yardimli, Lerik, Gubadli, Zangilan, the Upper Karabakh, Kalbajar (mountainous regions), also in Sharur and Shahbuz of Nakhichevan.

Tea growing- in the Caucasus, after Georgia (Kolkhida plain) the second place. Mainly planted in Lankaran, Astara, and Masalli and partly in Zagatala.

Saffron - the most valuable plant. It is planted in Absheron – Bilgah.

Henna plant – It is planted in Nakhchivan, Kurdamir, Salyan, Zagatala

Vegetable and melon – it is in all areas. Vegetable growing is in Guba-Khachmaz and Lankaran regions. Khachmaz is for late growing vegetables, but Lankaran is specialized for fresh vegetable. Melon cultivation is in Sabirabad, Saatly, Kurdamir, Zardab, Imishli and Absheron peninsula (Zira, Turkan, Hovsan). Kurdamir melon, water melon of Sabirabad and Zira, onion from Hovsan are famous.

Potato – it is planted in the western region of the Azerbaijan, in Shamkir, Gadabay, Tovuz, partly Dashkesan, Goygol, Gusar. Majority is non-irrigated crops but the least part is irrigated.

Viticulture - is one of the most advanced profitable areas, but also is a very labor-intensive. Grape is planted both in irrigated (60%), and dry farming land (40%) conditions. Cultivated varieties (over 250) are technical (the majority), table grapes and raisins grapes. The first place in grape production belongs to Ganja-Kazakh (Shamkir, Tovuz, Samukh), second place - the Kur-Araz (Beylagan and in the south east foot of the Lesser Caucasus, Fizuli, Jabrail, Zangilan), third place is Shamakhi and Nakhchivan.

Gardening is the specialized field.

Seedy fruit (apple) – mostly is planted in Guba - Khachmaz, Sheki-Zagatala, Mountainous Shirvan, nuts and fruit - (walnut, hazelnut, chestnut) – in Sheki and Zagatala, pip fruit (apricot, peach, plum), dry subtropical fruits (pomegranate , quince) in Kura - Araz lowland, southern fruits (pistachio, almond, fig, olive) – in Absheron, citrus fruits (lemon, orange, tangerine, feijoa) in Lankaran - Astara, mulberry tree - planted in lowland regions and Upper Karabagh.

Livestock - are the product for local consumption, does not pay meet all demands.

Cattle breeding (both meat and milk-meat) - is based on the rural economy. The local cattle (cows) occupy the main place. There are cattle in all regions. Buffalo

breeding is developed in Sheki – Zagatala. In Lerik-Yardimli regions – zebu and zebu type cattle.

Sheep breeding- is based on summer - winter pastures and on the natural forage base. Wool and skin is raw materials for light industry. Is profitable area, because the number grows fast, requires the less labor cost, less feed. It is of meat and wool directed. Main sorts are mountain merinos, for slaughter "Balbas" (Nakhchivan), "Karabakh", "Gala" (Absheron) types.

Poultry - poultry facilities are in the extremities of the city of Baku, Ganja, Nakhchivan. Kept in individual farms.

Silkworm breeding – in areas of planting of mulberry trees in lowland and highland regions (Balaken, Zagatala, Gakh).

Apiculture - in foothills and mountainous regions (sub-alpine meadows).

The new state plans is developed in Azerbaijan for development of agrarian - industrial complex.

Service sector

Areas of infrastructure and service sector

As with other areas in recent years, significant improvements have taken place in this area. The new hospitals, health centers, schools, gardens, hotels, resort areas built in regions may be examples of it. At the same time, the serious and major projects carried out in connection with the provision of housing for population, these projects mainly aimed to solve the problems of housing of war veterans and disabled.

Development of education and science is one of the directions of country's strategic development of the country. The country has a very strong scientific potential. In Azerbaijan's 25 public high schools 101.7 thousand students study. Half of the scientific potential of the country is accumulated in institutions of higher education. Recently, the number of private higher education institutions is rapidly increasing in republic.

In recent years, significant improvements have taken place in the field of health. Dozens of private and public hospitals have been opened meeting the modern standards. State hospitals refused the paid service.

The resort-tourist area is one of the main directions of complex development of economy. For the development of the tourist resort economy all kind of natural, climate,

landscape conditions, and historical and archaeological monuments, economic opportunities are available here.

The most important natural recreation resources in the country located on the banks of the Caspian Sea. Abundant solar energy of summer months. hot sands expand its rest, as well as treatment opportunities.

Goy-gol and the lakes system around it, around of the Batabat lake, the waters and the microclimate are important reserves of natural recreation. The mountains in Sheki-Baku, Ganja-Kazakh, Guba, Shaki, Lankaran-Astara, Upper Karabakh economic regions, forests there, natural and climatic conditions, zones of protected areas and reserves can be used for the development of tourism and the rest of the population. Other reserves, rare plants and animal species in them, the natural-climatic conditions should be used for this purpose.

Treatment facilities of mineral springs existing in republic are very high and on the bases of some of them large resort-sanatorium complexes are created. Now on the basis of Istisu (1972), and Galaalti mineral springs such complexes have been created. Mineral springs of Nakhichevan are widely used.

There are a lot of recreational resources of the architectural, archaeological, art monuments with anthropogenic origin. Recreation resources attract the population of this country and as well as foreign tourists. Rock pictures in Gobustan, Gamiqaya caves, Damjili caves, Alinja, Chirag, Javanshir, Arkivan towers, the city ruins found in different regions are the most important archaeological monuments. Sirvansahlar Palace, Maiden Tower, the Fortress walls in Baku, the Khan Palace in Sheki, historical and architectural monuments of Ganja, Shamakhi, Nakhichevan, Ordubad, Guba, Lankaran, etc. cities built in different historical periods are examples of architectural objects for sightseeing of tourists.

(Source of information <http://www.azerbaijans.com/>)

NATURE

GEOGRAPHY OVERVIEW.

FLORA AND FAUNA

Azerbaijan is situated on the western coast of the Caspian Sea, in the eastern part of the South Caucasus. The northern frontier of the country with Russia (Dagestan) stretches from the coast of the Caspian Sea to the Greater Caucasus Mountains; the northwestern boundary with Georgia is formed by complicated configuration of mountains; the boundary with the Islamic Republic of Iran to south runs alongside the Nakhchivan Autonomous Republic and the river Araz to the Caspian coast with its humid subtropical climate. Azerbaijan is bordered by Turkey to the southwest and by Armenia to the west.

The territory of the country as a whole can be pictured as a giant tray tilted towards the Caspian Sea. This causes all the rivers of Azerbaijan to flow into the sea. Some of them join the major river Kura, and some flow into river Araz, the largest tributary of the river Kura.

There are about 250 lakes in Azerbaijan. Gey Gel Lake, a pearl of exceptional beauty framed by wooded mountains, is located in the foothills of the Kapaz Mountains at a height of 1,556 meters above sea level.

Caspian Sea, the largest lake in the world (378 400 sq. km water surface), is unique at its origins and has a rich biodiversity. Its fauna comprises 1,332 species. 111 fish species live in the Caspian including sturgeon, salmon, Danube bleak, bream, herring and other fish. There are many seals near the Azerbaijan coastland, which, being the only mammal in the Caspian, are under protection of the Absheron Reserve.

Azerbaijan is rich in ores, non-metallic deposits and fuels. The largest oil and gas reserves have been in the Absheron Peninsula. The well known therapeutic naphthalene hydrocarbon is used to treat various diseases.

Mineral waters of Istisu spring in the Kalbajar region are superior to the renowned waters of Karlovy Vary in some of their characteristics. The mineral waters of Badamy, Sirab and Vaikhyr springs of Nakhchivan have become popular far outside the region. 12 reserves and 17 protected areas have been created to protect endangered species. The Gyzylagach State Reserve comprises a part of Mugan steppe lying beside the

Caspian Sea. Flamingo, crane, bald-coot, duck, cormorant, goose, swan and heron are most notable species among thousands birds that go there to winter. Persian gazelle inhabits the Shirvan Reserve. The Zagatala Reserve protects mountain animals: deer, mountain goat, mouflon, roe deer, bear and various species of birds. Many species in Azerbaijan are included in the Red Book database.

Rivers

The Araz river rises in the Bingyol mountains ridge (2990 m) of Turkey. The river meets the Kura River near Sabirabad city (Sugovushan village). Its total length is 1,072 kilometers. Total basin area of this river is 102 000 km². Due to the Araz electric power station built on the river in 1970, electric power is provided to both Iran and the Nakhchivan Autonomous Republic. The Araz River is of great importance in supplying the Mil, Mugan and adjoining the Araz steppes. Owing to its physiographic factors, the Araz River is not polluted when crossing the territories of Turkey and Iran. The river is still insufficiently explored because the border with the adjoining countries goes practically along the river.

The Samur River is the largest river flowing across the northeastern area of the country. It rises in the territory of Dagestan at a height of 3600 m above sea level and meets the Caspian Sea. Its total length is 216 kilometers. Total basin area is 44 000 km². The Samur flows across the complicated mountain relief distinguished by deep gorges and high mountains. Ground-water sources and glaciers are of special importance in water feeding the river. The Samur-Absheron canal originates in the water intake built on the Samur River.

The Alazan river The Alazan River is formed at the confluence of the Tsiplovani-Hevi and Samkuris-Tskhali rivers having their rises on the Main Caucasian Ridge within the territory of Georgia. The length of the river is 413 km, total drainage area is 16920 km². For its 177 km the Alazan forms a natural boundary between Azerbaijan and Georgia. At a distance of 34 km from the river mouth it enters the territory of Azerbaijan where the local population calls it Ganykhchay. When flowing through this area, the Alazan receives no tributary. Cutting through Dashuz Mount, the river flows into the Mingchevir water reservoir below the mouth of the Agrichay River.

The average annual streamflow of the river is 2,9 km³, out of which 18% flows in winter, 35% - in spring, 25 % - in summer and 22% - in autumn.

During the period of intensive irrigation, the river brings approximately 12% of the total annual streamflow.

The Kura River The Kura River is the largest one on the Caucasus, it rises in the northern-eastern side of Gyzyl-Gaduk Mount (on the territory of Turkey), at a height of 2700 m. The total length of the river is 1515 km. The total drainage area is 188 000 km².

Within Azerbaijan territory the river flows in its partly middle and completely lower streams. From the mouth of the Alazan River to Mingchevir the river flows through quite a wide valley. Leaving the Bozdag gorge, the Kura River enters a wide valley. The Kura becomes navigable below city of Mingchevir.

At the Sabirabad mountains the Kura receives the Aras River as the last largest right tributary. At its mouth the Kura's stream develops a small delta. The beginning of the delta is considered to be the northeastern bank. The navigable outlets to the sea are the Eastern arm and the navigable tract of the Kura, at which mouth a canal was dug through the sandbar.

The average annual streamflow volume of the Kura River is 18 km³, 16% of which is in winter, 42 % - in spring, 27% - in summer and 15% - in autumn.

The Kura River has great economic importance for Azerbaijan. This waterway is used for irrigation, navigation, fishing and energy purposes. Currently all units of the Mingchevir hydroelectric power station are completed and put into operation.

HISTORY

History Overview

The favorable geographical position of the country, rich natural resources and nice climate always made Azerbaijan a country attractive and sometimes not just for peaceful settlers. It also served as bait for aggressive moves of various tribes and empires like Roman and Parthian, Arab Caliphate, Great Horde of Chingiz Khan, empires of Tamerlan, Ottoman Turks and Russia.

Each area in Azerbaijan keeps numerous archeological evidence of people having already lived here in prehistoric or ancient time. The climate, abundance of water resources served the most ancient people that inhabited the area, as was proven by scientific materials on the research of Azykh and Taglar caves. Sometimes the natives found a refuge from invaders and conflicts high in the mountains, where their shelters developed as separate settlements with isolated ethnic groups holding on to their original way of life. The agriculture and cattle-breeding started by the late Neolithic period alongside with the primitive building and pottery. Then the archaic painted ceramics and schematic petroglyphs (scientific materials on Gobustan, Gamigaya,

Shakhtahti, Shomutepe, Alikepektepe, Kultepe) have appeared. During the Bronze epoch (3-1 millenniums BC) the metal processing (weaponry) related crafts have appeared; products from bone, textiles, and painted ceramics improved. Connections with peoples of Asia Minor and Near East (scientific materials on the Kur-Araz culture that were discovered in many places of modern Azerbaijan) intensively developed.

Then first big tribal unions, which mentioned in various ancient written sources (namely, Sumerian-Acadian ones), appeared. Throughout its history, Azerbaijan was mostly a part of various empires, but became a large state building center in the medieval period for the states of Atabays Ildenizids (12-13th centuries AD), the States of Garagoyunlu and Aggoyunlu (15th century AD), the State of Safavids (16-17th centuries AD). But the first large State, Manna Kingdom with the capital Izirtu, was established in the 9th century BC. It became the very first State created by ancestors of Azerbaijanis; the local statehood history that counts already 3 thousand years begins with it.

Median Empire with the capital in Ekbatanes replaced Manna in the 7th century BC. Media achieved considerable military and political success by crushing Assyria, Urartu and spreading its powerful influence throughout the territory of South Caucasus and most parts of contemporary Iran. Median Empire collapsed in the 6th century BC and was included in the new Persian empire of Akhemenids, and became one of the pillar provinces. The Akhemenids conducted active and aggressive policy but had strong cultural impact on neighboring countries. Despite conquering vast and rich territories, the Empire got weakened because of frequent wars and rebellions. Alexander the Great managed to overcome and conquer the Persian Empire by the middle of 4th century BC. The conquered territories received then the influence of Hellenistic culture. That changed the historical and cultural landscape from Central Asia to Europe and from Egypt to India.

During that period two States, Caucasian Albania and Atropatena appeared in the historical territory of Azerbaijan. They rapidly achieved relatively high level of agriculture (wine-making, gardening, flax and cotton production, cattle-breeding). Gradually, crafts were developing considerably (weaving carpets and tapestries, glass-making, metalworks) in the towns of Albania and Atropatena. Trade with the countries of Central Asia, Northern Caucasus, Black Sea coast and Egypt was flourishing.

From the end of 1st century BC to 7th century AD Azerbaijan became the arena of territorial claims and military actions between Parthia and the Roman Empire, and later between Byzantium and Sasanid Iran. Atropatena completely turned into a part of the Sasanid Empire by the 3rd century AD, while Caucasian Albania still managed to keep a relative independence. The first capital of the Caucasian Albania was Gabala and later Barda. In the beginning of the 4th century AD Christianity became the state

religion of the Caucasian Albania while in Atropatena the Zoroastrianism was still dominating. In the 7th century AD Sasanide Iran and nearby territories were conquered by the Arab Caliphate. Arabs have brought a new religion here, Islam.

The Caliphate incorporated vast territory from Pyrenees up to China, from Caucasus to Northern Africa, but it also incorporated the culture of conquered peoples. Similarly to the Greek one, the new Muslim culture had a huge influence over the course of global history, development of science, medicine and philosophy.

The important element there was also the culture of Azerbaijan that had enriched Muslim culture, having contributed scientists, poets and educators. Since the early Middle Ages, the territory of Azerbaijan was often invaded from the north. The territory of Azerbaijan was penetrated through the Darband pass by various tribes: hunns, savires, khazars, bulgars, onogurs etc. Some of them settled, mixing up with local population, others left with plunder to come back later or perished because of armed resistance.

Because of constant threat from the north, a succession of kings and governors paid great attention to building fortifications in purpose of defending Azerbaijan. Strong walls and citadels of Darband, long walls and strongholds of Gilgilchai with the Chirag Gala fortress, the fortification system of Beshbarmag that were constructed by Sasanid rulers in early medieval period appeared. It is also should be noted that medieval castles, watch towers of Absheron and fortification complexes of north-eastern Azerbaijan and Absheron are nominated to be included in the World Heritage List of UNESCO.

There are many remnants of medieval fortifications in various regions and districts of Azerbaijan. Local population often rose to offer fierce resistance to invaders and the Babek Uprising was one of the bright and violent pages in the history of Azerbaijan. The Hurromite rebels and their leader Babek fought for the independence and their struggle lasted for 20 years, during which they defeated seven armies that were sent against them.

After the defeat of Babek anti-Caliphate separatism strengthened and led to emergence of such new states as the Kingdoms of Shirvanshakhs, Sajids, Salarids, Shaddadids, and Ravvadids. All of them minted their own coins, possessed armies and carried out independent policy. In 11th century AD, Azerbaijan was invaded by the armies of the Seljukid Empire that ruled also the part of Iraq and South Caucasus in addition to some territories in Minor and Central Asia. The Seljuk Empire existed not for long - by the beginning of 12th century it collapsed giving way to separate domains. In the territory of Azerbaijan only the Kingdom of Shirvanshakhs could defend its independence from Seljukids. At the same time another new State, founded by the

Atabay Shamsaddin Ildeniz (1136-1175 AD), emerged in Azerbaijan. The domain of Ildenizids included almost all Azerbaijan, except for the Shirvanshakhs Kingdom that was forced to become its vassal. Many neighboring countries recognized the Ildenizids as their supreme seniors. Capitals of this State were the cities of Nakhchivan, Tabriz, Hamadan, and Maraga. Ildenizids had strong army, minted their own coin and conducted active independent external and internal policy.

However, in the beginning of the 13th century AD Azerbaijan was captured by the Mongolian hordes. By the year 1239 AD it was completely included in the Mongol Empire. In 1256 AD the grandson of Chingizkhan, Hulagu, created his own State. Hulagu Khan ascended on a throne with a title of Ilkhan. The domain of Hulaguids or Ilkhans ruled vast territories from Darband in the north to the Persian Gulf in the south, from Amu-Darya in the east to Egypt in the west. One of the major regions in the State of Hulaguids was Azerbaijan where the capitals of the new State, Maraga and Tabriz, were located. During the reign of Ilkhanid the economy blossomed and the towns with developing crafts, science and trading communications extended and became stronger; new bridges, caravansarays, mosques, madrasa, khanaka (Muslim convent buildings) and fortresses were being under construction.

Having existed about 100 years, the Hulaguid domain weakened and turned into the arena of struggle between khans of the Golden Horde and the founder of new Empire in the Central Asia, Emir Timur (Tamerlan) by the middle of 14th century AD. The Jhelairid Kingdom that was established on the ruins of the former great Hulaguid Domain has got under Timur's authority. The state of Shirvanshakhs, due to wise diplomatic efforts of Shirvanshakh Ibragim Darbandi (1382-1497AD) not only managed to preserve relative independence but also avoided the hardships of violent times and spread its influence to other regions of Azerbaijan.

Decline of the Timurids and strengthening of the Shirvanshakhs, Garagoyunlu and Aggoyunlu tribal unions throughout the region was very typical for the 15th century. Cities and crafts revived again, and trade developed. Aggoyunlu King Uzunhasan (1453-1478 AD) managed to establish diplomatic relations with many countries of Europe: Venice, Hungary, Austria, Poland, France, England, Portugal, Spain, etc. At the same time, the State of Shirvanshakhs experienced rapid growth, especially during the reign of Shirvanshakh Halilullah I (1417-1465) and his son Farrukh Yassar I (1465-1500). The treaty on friendship trade and consent was signed between Shirvan Kingdom and the Great Princedom of Moscow.

In 15-16th centuries the eminence of Ardabil rulers began, the descendants of Sheikh Safi, the followers of one of two major branches of Islam, shiism, started growing. The State created by descendants of Sheikh Safi received the name of Safavid Kingdom. The founder of the State Shakh Ismayil Safavi defeated the Shirvanshakh

Farrukh Yassar and then the army of Aggoyunlu. In 1501, he declared himself the Shakh of the Empire that included Southern Caucasus, Iran, Iraq, and Khorasan. Tabriz became the capital, Azerbaijani was a state language. The strengthening of the Safavid Empire and active aggressive policy of Shi'ah Gizilbash rulers led to collision with the Turk Ottoman Empire. The wars between them were going on with changing success for centuries and devastated Azerbaijan. By the 18th century the Safavid Empire came to decline and was divided into separate domains. The largest of them were Guba, Garabag, Sheki, Maku, and other domains called khanligs (khanates) that were ruled by hereditary rulers, khans. They were conducting wars continuously, being often exposed simultaneously to invasion of Turkish and Iranian armies.

Russian Empire expanded its geopolitical interests to Caucasus by the middle of the 18th century. It enforced its influence here, conducting wars with Iran and Ottoman Empire and managed to take the whole territory of South Caucasus under its control. As a result of these wars in 1813 the Gouloustan and in 1828 the Turkmanchai Peace Treaties were signed between Iran and Russia, according to which Iran refused the claims to South Caucasus. Thus, Azerbaijan was divided into two parts between Iran and Russia. Because of its rich oil deposits and experienced rapid economic development phase the Northern Azerbaijan was included into Russian Empire.

After the February revolution and overthrow of the imperial government of Russia in 1917, Azerbaijan immediately attempted to restore its independence, having formed the first democratic republic in the Muslim East, the Azerbaijan Democratic Republic. It existed for almost 2 years - from May 28, to April 28, 1920. However, Russia could not give up such a unique region with rich hydrocarbon resources and geopolitical position. On April, 28, 1920, violating the state sovereignty of young republic, 11th Red Army invaded Azerbaijan.

When Azerbaijan restored the independence after disintegration of the USSR in 1991, a new stage in the history of the country began. The Constitutional Act "About the State independence of the Republic of Azerbaijan" was adopted on October 18, 1991. The Republic of Azerbaijan led by the president elected by people is heading along the path of development, the choice all population, irrespective of ethnic, language and/or religious-cultural affiliation. The first referendum in the history of Azerbaijan on December 29, 1991 re-affirmed equality of all citizens of the country, where all nationalities inhabiting it, including all ethnic minorities, constitute the people of Azerbaijan. According to the Constitution of 1995, Azerbaijan is the legal, sovereign, unitary State, which is developing in the spirit of The General Declaration of Human Rights and other core documents of the United Nations, Helsinki Act of 1975 and the OSCE documents. Being the country with the transitional economy, Azerbaijan is at a stage of intensive development, putting into practice the programs directed on creation of favorable legal and economic conditions for the development of business, attraction

investments in the country, introduction of high technologies and consolidation of financial and bank systems.

In the area of foreign policy Azerbaijan adheres to independent and peaceful policy, being a member of the United Nations, Council of Europe, CIS, Organization of Islamic Conference and many other organizations.

CULTURE

Culture

Culture of Azerbaijan roots in ancient times, as documented by petroglyphs on the rocks of Gobustan, Gamigaya in Nakhchivan, on the mountain Dalidag in Kalbajar; archaic ceramics of neolith and epoch of bronze, bronze ornaments and utensils, products from gold and silver found in numerous barrows, burials and settlements.

The ancient cults (animism, ancestors' cult, etc.) in Azerbaijan were replaced by Zoroastrian religion by the middle of 1 millennium BC. Being one of the most ancient religions on the planet, it contains the concept of duality ruling the world (Good and Evil, Ahuramazda and Angra Mainyu), and so one of the main spiritual duties of Zoroastrian worshipper was the concept of Choice. One of the main holidays became Novruz, which is interpreted as "New Day" and means a new day approaching with the victory of Good over Evil. Novruz lost the meaning of a Zoroastrian holiday while centuries passed by, and today is considered as the holiday of spring in the day of Spring equinox on March 21 in Azerbaijan. It is a cheerful holiday that is being celebrated for several weeks. The people have kept recipes of its ritual dishes and sweets through millennia.

In the Middle Ages a number of cities emerged as main cultural, political, administrative and trading centers. Such cities in the history of Azerbaijan were Shamakhi, Ganja, Baku, Barda, Sheki, Tabriz, Nakhchivan, Shabran, Ardabil, Maraga, Gabala, Beylagan etc. Medieval authors called Azerbaijan the country of hundred cities. By the 5th century AD Caucasian Albania had already its own writing alphabet. Albanian educator Musa Kalankatu wrote "The Agwan History" in the 7th century AD including the poem of Albanian poet Davdak "On Death of Grand Duke Javanshir".

In late 7th - early 8th centuries, when the great bulk of the town population adopted Islam, a new culture emerged, and the Albanian writing was replaced with Arabic. Muslim educational institutions, mektebs or madrasa, where Arabic was taught alongside with the Koran, mathematics, medicine, astronomy, philosophy etc., spread over the country. Construction works were extensive in the country during both the Albanian period and afterwards. Many cult buildings (churches, mosques), bridges,

castles, fortresses, irrigational constructions appeared during 11-12th centuries, marking the time of renaissance in Azerbaijan.

This epoch brought along poets, thinkers, architects such as a philosopher Bakhmanyar, historian Masud Ibn Namdar, architect Abubakr Ajami, poetess Mahsati Ganjavi and the great poet and philosopher Nizami Ganjavi, poet and thinker Khagani and so on. At this particular time the Turk-oghuz epos "Kitab-i-Dede Gorgud" was finally formed; chess, backgammon, chovgan game of polo were the wide-spread entertainments all around. Almost in each town a "zorkhana", a wrestling hall or gym, was available. Thanks to that period, we enjoy such gorgeous architectural objects as fortifications of Baku, Maiden tower, mausoleums of Nakhchivan, Kanegah on the river Pirsaat and many other monuments.

The intensive development of culture proceeded further in the 13th -15th centuries despite wars and invasions. Such masterpieces of poetry as "Divan", the assembly of verses by a poet Hasanoglu, "Kissa and Yussuf" by a poet Ali were created in Azerbaijani language. A big observatory was built in Maraga under the initiative and plans of the great Azerbaijani astronomer, scientist and philosopher Nasreddin Tusi who was considered a mentor by many subsequent astronomers of the Muslim period, including Ulugbek. The Observatory was equipped with devices, previously unknown to science, designed by Tusi himself. At that time musicians Safiaddin Urmavi and Abdulgadir Maragahi created the original and unparalleled musical system.

The culture of this epoch is distinguished with such outstanding personalities as Imamaddin Nasimi, Badr Shirvani, Abdurrashid Bakuvi, Seyid Yahya Bakuvi, philosophers and poets. The famous historian Rashidaddin and others lived at that time. Many of the celebrated personalities - poets, mathematicians, philosophers - developed high principles of Sufi philosophy that were frequently concealed by love lyrics. Such Sufi philosophers as Nasimi and Bakuvi enriched the culture of universal values.

During the epoch of Safavids (16th century) the art of miniature and calligraphy got a new impetus. One of the most known schools of miniature in the East, the Tabriz school, and its brightest representative Sultan Mohammed (16 century) flourished at the time. Mohammed Fizuli's (1494-1556) poem "Leili and Majnun" became the poetic pinnacle. Spoken folk poetry also developed. The epos "Koroglu" was very popular in the region and the person of that legendary folk hero was so popular that now there are several presumed places of his legendary fortress Chanlibel.

During the Middle Ages applied art crafts - glazed ceramics, metal wares, colored glassworks, art of carpet weaving embroidery and tapestry - rapidly developed in Azerbaijan. Those goods were widely exported, and remarkable samples nowadays are

kept in the leading museums of the world (the Hermitage, the Louvre, Topkapı, Victoria and Albert Museum, Metropolitan Museum etc.).

The reputation of local craftsmen allowed them to be often invited for work in other countries, and during wars they were taken away forcibly. For example, Azerbaijani builders, copper-smiths, calligraphers and architects participated in construction of many architectural masterpieces of Samarkand, Shakhrisabz, Iraq and India.

After Azerbaijan had become a part of Russian Empire, the stage of stronger European cultural influence began. It was reflected in fine arts, architecture, literature, education etc. In the 19th century the first scientific research of the history of Azerbaijan since the medieval ages, "Gulistan-i-Iram" by Bakikhanov, appeared. At the same time Mirza Fatali Akhundov (1812-1878), the founder of the Azerbaijan's drama and modern Azerbaijani literature, became known for his realistic novels and dramas. In 1874, the first newspaper in Azerbaijani language, "Ekinchi", was issued. The publisher of the newspaper was well-known educator Hasan bey Zardabi.

In March, 1873, the first theatre performance in Azerbaijani language took place, and in 1866 the first grammar school, and later in 1864 the first female grammar school were opened in Baku. In 19th - early 20th centuries a number of newspapers and magazines were issued in Azerbaijani: "Hummet", "Takammul", as well as in Russian - "Bakinski Rabochi", "Kaspi". The satiric magazine "Molla Nasreddin", issued by writer J. Mammadguluzadeh, was met with great success. Some outstanding personalities were cooperating with the magazine, including a well-known artist-caricaturist Azim Azimzadeh, a poet-satirist M.A.Sabir, and a poet Aligulu Gamkyusar etc.

Opening night of the first national opera "Leyli and Majnun" by composer Uzeyir Hajibeyov took place on January, 12, 1908. On October 25, 1913, first night of the national comedy "Arshin mal alan" gained the hearts of the public. Outstanding masters of national theatrical stage of that period were Huseyn Arablinski, Huseyngulu Sarabski, Mirza Aga Aliyev, and Sidgi Ruhulla. At the same period a basis for modern fine arts in Azerbaijan was created. Its founders were artists Bakhrúz Kargarli and Azim Azimzadeh. Architects Ploshko, Skibinski, Goslavski, Ahmedbey Ziverbayov built such remarkable objects as the present Puppet Theatre, City Hall of Baku, Museum of History, Museum of Arts, National Academy of Sciences, Theatre of Opera and Ballet, Juma Mosque in Shamakhi etc.

After the beginning of the Soviet period in Azerbaijan such new directions as constructivism found reflection in the architecture of Baku (Shyusev and Vesnin brothers) that led to construction of the former Azerneshr and other buildings in the city.

The national school of architecture developed under the creative impact of Useynov, Dadashev, Gasimzadeh, Ismaylov, and Shulgin.

Such poets, writers and dramatists as Huseyn Javid, Mikayil Mushfig, Abbas Sahhat, Yusif Chamanzaminli, Mammadseyid Ordubadi, Jafar Jabbarli and others enriched the national literature of Azerbaijan. Such composers as Gara Garayev, Niyazi, Fikret Amirov, and Arif Melikov greatly influenced the development of modern national musical culture. Such composers and jazz musicians as Vagif Mustafazadeh, Aziza Mustafazadeh, Rafiq Babayev and others started using traditional motifs in their music.

The most famous artists and sculptors of the period were Mikayil Abdullayev, Sattar Bahlulzadeh, Tair Salakhov, Togrul Narimanbeyov, Alakbar Rzaguliyev, Fuad Abdurahmanov, Tokay Mammadov, Omar Eldarov, but they form only a small portion of the talented group. The well known modern film directors are Hasan Seyidbeyli, Rasim Ojagov, Arif Babayev, Ajdar Ibrahimov and others. The list of renowned writers includes the names of Magsud and Rustam Ibrahimbeyovs, Natig Rasulzadeh, Elchin, Chingiz Abdullayev and others.

NATIONAL PARKS

National parks

Name: Hirkan National Park

Year of foundation: 2004

Area (hectare): 21435

Location: Within the territory of Lankaran and Astara administrative districts.

Brief description: The Hirkan National Park is in Lankaran natural region and protects the landscapes of humid subtropics. The Hirkan National Park consists of valley area of Lankaran lowland and mountainous landscape of Talysh Mountains.

The Lankaran natural region has rich fauna and flora including many rare and endemic species.

Flora of the park consists of 1, 900 species including 162 endemic, 95 rare and 38 endangered species. There are the iron tree, three-thorned acacia (*Gleditschia tricanthos*), *Zelkova*, *Quercus Castaneifolia*, *Ficus hircanys*, etc.

There are many endemic and rare animals, particularly, among the representatives of ground mollusks and non-flying insects. The birds' endemism is well represented, up to subspecies level, while the species level has a relatively poor representation. The main protected objects are the natural complexes of lowland and low mountainous forest areas of the Lankaran natural region, including the unique well-preserved plot of lower forest, the ecosystem of rare forest of the Hirkan type.

Name: Shirvan National Park

Year of foundation: 2003

Area (hectare): 54373,5

Location: Within the territory of Salyan administrative district as well as Garadagh and Neftchala districts of Baku city.

Brief description: The Shirvan National Park was established on the base of the Shirvan State Reserve founded in 1969 and neighbouring areas. The reserve's activity is focused on the protection and reproduction of the Persian gazelle (*Gazella sulgutturosa*), waterfowl birds and typical plant biotypes of the Shirvan Lowland. The area is 25800 hectares, of which 3500 hectares are water reservoirs. The territory of the park used to be at the bottom of the Caspian and at present it is an accumulative plain, which is 20-25 m below sea level with a slight increase in the relief westwards. In terms of climate the park lies in an area of moderate warm semi-desert and arid steppe. Summers are hot and dry and winters are moderate and dry.

In the park there are several types of vegetation. The desert type is represented by *Halocnemum*, *Halostachys* and *Salicornia* formations developed on solonchaks. *Halocnemum* vegetation occupies about 40% of the territory of the park. The main species is the *Halocnemum strobilaceum*. The *Halostachys* phytocenosis has a more complicated structure and a richer species composition than *halocnemum*. At the tops of the hills *halostachys* grows and the slopes are covered by cereals and motley grass from the ephemeral group.

Salicornia vegetation has developed in a small area of the central part of the park as a result of wet salines and the high level of ground waters. As well as *Salicornia europaea*, there is also *rankenive* and *tonkokhstnik*.

The semi-desert type of vegetation is represented by formations of *sveda* and ephemeral wormwood. The latter formation, which occupies 40% of the park area, has the richest species composition. Wormwood dominates, and among ephemera 20-25

species are met, including mast cereals: *Poa bulbosa*, *Bromus*, wall barley (*Hordeum leporinum*), etc.

Meadow-type vegetation is developed in the park on chals (humid lowerings on the relief). The herbage is two-layered and is formed of *Alhagi* (first layer) and *Aeluropus repens* (second layer). In some places *Artemisia* and wall barley (*Hordeum leporinum*) are found.

The fauna is poorly studied. Among amphibians there are green toad, Hylidae and lake frog. Among reptiles there are swamp, Caspian and Mediterranean turtles, lizard, water snake (*Natrix natrix*) and water snake, *Vipera lebetina* and others. The ornithofauna is poorly studied, but according to the existing data there are bustard (*Otides*), *Francolinus*, little bustard (*Otis tetrax*), white-tailed eagle (*Haliaeetus albicilla*), steppe eagle (*Aquila nipalensis*), peregrine (*Falco peregrinus*), saker falcon (*Falco cherrug*) and *Pterocletes orientalis*. In winter, there are many migratory birds on the water bodies: gray goose (*Anser anser*), mallard duck (*Anas platyrhynchos*), pintail (*Anas acuta*) and others.

Among rare mammals species there are Persian gazelle (*Gazella sulguturossa*), wild boar, wolf, jackal, jungle cat (*Felis chaus*), fox, badger, European hare and others. Persian gazelle (*Gazella sulguturossa*), *Francolinus francolinus*, bustard (*Otidis*), little bustard (*Otis tetrax*), white-tailed eagle (*Haliaeetus albicilla*), steppe eagle (*Aquila nipalensis*), peregrine (*Falco peregrinus*), saker falcon (*Falco cherrug*) and Mediterranean turtle are listed in Red Book.

The main protected objects are the natural semi-desert complexes of the south-eastern Shirvan, with the world's biggest population of Persian gazelle (*Gazella sulguturossa*) and the water-wading ecosystem, which is a place of nesting, a migration route and wintering area for many valuable bird species (western part of the Shor-Gel Lake).

Name: Ag-Gel National Park

Year of foundation: 2003

Area (hectare): 17,924

Location: Within the territory of Agjabedi and Beylagan administrative districts.

Brief description: The Ag-Gel National Park was established for the preservation of migrating routes, areas of wintering and nesting of waterfowl and wader birds, as well as for breeding of commercial fish species. The area of 4400 hectares covers the water

area of Lake Ag-Gel. Lake Ag-Gel (white lake) reserve is situated in the Mill steppe of the Kura-Araks Lowlands, it may be called an “ornithological oasis”: this is not only a reserve area but one of the most important places of wintering in the Republic.

The Mill Steppe surrounding the lake is a slightly hilly accumulative plain, where mostly semi-desert and arid steppe type: summer is warm and dry, winter is cool. Twenty fish species inhabit the reserve: pike, erythroculter, mongolicus, carp and others. Earlier, when the lake was connected with the River Kura, the Ichthiofauna was richer. Among amphibians, green toad, hylidae, lake frog and others inhabit the reserve. Among reptiles the Caspian and swamp turtles, common and water grass snakes occur. There are 134 bird species in the oritofauna of the reserve, including 89 nesting birds. There are more than 30 specimens of charadriiformes and 24 specimens of anseriformers. Among the birds occurring here there are species included in the “Red Book” – Francolinus, white-tailed eagle, white pelicans (*Pelicanus onocrotalus*), Dalmatian pelicans (*Pelicanus crispus*) and others.

Among mammals, represented by 22 species, wild boar, coypu and jungle cat (*Felis chaus*) are common, Unique colonial nesting places of Ciconiiformes and Totipalmate birds (Pelecaniformes) are preserved here, which are of great scientific and practical interest.

The main protected objects are the water – swamp ecosystem of Lake Ag-Gel, places of mass nesting, places of rest during migration and wintering for waterfowl and coastal birds.

Name: Ordubad National Park

Year of foundation: 2003

Area (hectare): 12131

Location: Nakhchivan Autonomous Republic, within the territory of Ordubad administrative district.

Brief description: The Ordubad National Park was established for the preservation and restoration of the number of Transcaucasian moufflon, bezoar goat (*Capra aegagrus*), Leopard, brown bear, Transcaucasian health cock, hyena and Tetraogallus. All the species are listed in the Red Book of the Republic.

Name: Absheron National Park

Year of foundation: 2005

Area (hectare): 783

Location: Azizbeyov district of Baku city, Absheron peninsula.

Brief description: The Absheron National Park was established on the base of Absheron State Nature Preserve for the protection and restoration of the number of migrant and wintering waterfowl-wader birds, as well as to protect Caspian seal rookeries.

Name: Altyaghach National Park

Year of foundation: 2004

Area (hectare): 11035

Location: Within the territory of Khyzy and Siyazan administrative districts.

Brief description: The Altyaghach National Park was established to protect the landscape of the south-eastern ridge of the Major Caucasus and to restore diversity of flora and fauna. Such mammals as the roe deer, bear, wild boar, lynx, coon, fox, etc. and some of migrant birds are to be found on the territory of this park. Many of these species are listed in the Red Book of Azerbaijan.

PRESERVES

Reserves

Name: Basut-Chay State Reserve

Year of foundation: 1974

Area (hectare): 107

Location: Within the territory of Zangilan administrative district, Basut-Chay valley.

Description: The Basut-Chay State Reserve was established for the protection of a unique plan-tree grove. In October 1980, the area of the reserve was reduced by 10 hectares. It is consisting of *Quercus iberica* and Caucasian hornbeam, while on the hilly plateau of the left bank, forest of *Celtis caucasica* and Indian Juniper (*Juniperus*

polycarpus), Pistacia and others are developed. Platan trees have an average age of 170 years; however, there are some real giant trees, which are up to 1,200-1,500 years old. The height of these trees is 50 m with diameter of up to 4 m. The main protected object is the unique plane-tree grove, which is the biggest in the world. Five settlements were located around the reserve, inhabitants of which traditionally considered this plane-tree grove as their private plots.

Name: Gara-Yaz State Reserve

Year of foundation: 1978

Area (hectare): 9,658

Location: Within the territory of Gazakh administrative district, on the bank of the River Kura in the Agstafa forestry.

Description: The Gara-Yaz State Reserve for the protection and restoration of the Kura tugay forests. The Gara-Yaz reserve is in the western part of Azerbaijan. Its territory covers the flood lands of the River Kura and the Gara-Yaz Lowland on the left bank of the River Kura. In the region where the reserve is situated, the tugay forest and steppe lowland landscapes are typical. In the past, a continuous line of tugay forest extended along the middle and lower reaches of the River Kura, which was surrounded by forest to an extent of 600 km. The territory of the reserve is part of the quaternary accumulative lowland, sloping slightly to the River Kura. Here the climate is that of moderate warm semi-desert and arid steppe, for which a warm and dry summer and moderate winter are typical. The main protected objects are the biggest tract of tugay forests of the middle reaches of the River Kura and the rare and endangered ecosystems of tugay. Along the river, shrubbery of willow, hawthorn, barberry, elaeagnus and others grow.

Name: Gara-Gel State Reserve

Year of foundation: 1987

Area (hectare): 240

Location: Within the territory of Lachin administrative district, on the border with Goruss district of Armenian Republic.

Description: The Gara-Gel State Reserve was established for the protection of the unique ecosystem of the rare mountain Lake Gara-Gel, which is of glacier origin and

to guarantee the safety of the surrounding natural complex. Lake Ishigli-Gara-Gel is situated at a height of 2,658 m above sea level in the southern part of the Karabakh volcanic plateau near the foothills of several mountains with a height of 3,200-3,500 m. The lake is a relict water reservoir, which was formed in the crater of an extinct volcano. The length of the lake is 1,950 m, its maximum width is 1,250 m, length of its coastline is 5,500 m, maximum depth – 7.8 m, volume of water – 10 million m³, area of the lake 13 km². Water flow is mainly due to melted snow and rainwater, partially spring water. In terms of botany and geography the Karabakh Plateau is situated between the Caucasian and Armenian-Iran provinces, which determines the specifics of the local flora.

The flora of the reserve includes 102 species and subspecies of vascular plants from 68 genera and 27 families. The lack of flora is explained by the fact that the reserve covers only the lake, and many rare and endemic species grow beyond the reserve area, but close to its borders. The vegetation of the coastal area of the lake is represented mainly by meadows with the dominance of *Trifolium* and *Tragacantha* and *Astragalus*. The swamp flora and vegetation are limited because of the height of the area. There are only two species of plants in the lake: *Polygonum amphibium* and *Ranunculus*. In 1967, a type of Sevan trout, included in the Red Book, was introduced into the lake. The reserve is an inter-republic reserve. The reserve is under occupation. It should be noted that adjacent to the borders of the reserve there are areas with rare and endangered species of plants such as *Euphrasia*, *Potentilla* and others.

Name: Gey-Gel State Reserve

Year of foundation: 1925

Area (hectare): 6,732

Location: Within the territory of Khanlar administrative district, north-eastern part of the Minor Caucasian Ridge.

Description: The Gey-Gel State Reserve was the first reserve in Azerbaijan. The fate of this state reserve can serve as an illustrative example of the wrong approach to the organization and functioning of state reserves, their dependence on immediate and determined resolution. The reserve was liquidated in 1950, and restored again in 1958. Having existed for three years, it was liquidated once again in 1961. On July 14, 1965 the Gey-Gel State Reserve was restored for the third time. The reserve consists of two territories: the main Gey-Gel reserve and a subsidiary that is called "The Eldar Pine" Grove. The distance between them is 80-85 km. The subsidiary part of the reserve is protected by the arid forest landscapes on the right bank of the Gabirli River near the

near the border with the Georgian Republic, where on the slopes of the “Eldar Oyugu” Ridge a unique natural grove of Eldar pine has been preserved. The Eldar pine grove has been protected since the end of the 19th century and this area can be referred to as the oldest specially protected area on the territory of Trans-Caucasia. The area of the Gey-Gel State Reserve is 7,131 hectares, of that 3,806 hectares are forest tracts. It is situated in the northeastern part of the Lesser Caucasus Range at a height of 1, 100-3,060 m above sea level. The reserve was established to protect and study the typical landscapes of mountain forest and sub-alpine areas of the Lesser Caucasus, preservation of the purity of water in Lake Gey-Gel as a source of drinking water, as well as a unique grove of naturally growing Eldar pine. On the main territory of the reserve, the relief is mountainous and erosive. The northeastern slopes of the Murovdag Ridge are a sequence of longitudinal secondary ridges and deep river valleys. The highest peak is the Kapaz Mountain (3,065 m). In 1139, a strong earthquake destroyed a considerable part of this peak.

Great boulders fell down and blocked river hollows, including the Agsu River. As a result, many lakes appeared, among which was Lake Gel-Gel. The earthquake completely destroyed Ganja city as well. Not only the lakes remind us of this terrible event, but rocks are spread along the slopes of the Kapaz Mountain creating a spectacular view. Gey-Gel is the biggest and the most beautiful lake in Azerbaijan. It is situated at a height of 1556 m. Its maximum length is 2450 m, width— 525 m, depth—93 m, length of the coastline— 6,460 m. the area of the lake is 79 hectares, volume of water – 30 million m³, its water is fresh, transparent and seems to be blue, due to which it is called Gey-Gel (“blue lake” in Azeri). As a whole, there are 8 big lakes on the territory of the reserve, the biggest among them are: Maral-Gel (Deer Lake), Zali-Gel (Leech Lake), Gara-Gel (Black Lake). Like Gey-Gel all of them are surrounded by mountains. The fauna of the reserve is represented by many species of animals and birds, among which are: Caucasian red deer, roe (*Capreolus capreolus*), badger (*Meles meles*), West-Caucasian auroch, Caucasian goat, brown bear, pine marten (*Martes martes*) and stone marten (*Martes fiona*), Griffon-vulture, partridge (*Alectoris kakelik*), Tetraogallus and others. Two species of trout: lake and rivertrout, are observed in the waters of the reserve.

A population of the lake trout (Gey-Gel) was formed in Lake Gey-Gel and other lakes of this region after their formation in the 12th century. More than 50 species of birds are nesting in the reserve including 35 species in the forest area. The partridge (*Alectoris kakelik*) and Tetraogallus caspica (included in the Red Book) and others are nesting in the Subalpine and Alpine zones. The flora of the reserve consists of 420 species of plants including 76 species of wood and bush types. About 20 species of flora are endemic to the Caucasian region. There are: *Quercus Iberica*, Troutfetter’s maple, Nizami’s dog-rose, *Aconitum*, *Alchenilla*, *Astragalus*, pinks, Ruprech’s

geranium, and others. The main protected objects are natural complexes of the middle mountain, forest, partially subalpine area in the region of the northern slopes of the Lesser Caucasus, as well as the ecosystems of the Gey-Gel, Maral-Gel, Zali-Gel and other mountain lakes.

Name: Gyzyl-Agach State Reserve

Year of foundation: 1929

Area (hectare): 88,360

Location: Within the territory of Lankaran administrative district, in the Great Gyzyl-Agach bay.

Description: The Gyzyl-Agach State Reserve is situated on the southwestern coast of the Caspian on an area of 88.4 thousand hectares including 62 hectares of water area. It was established in 1929 for the protection and reproduction of wintering and migratory waterfowl, wader and steppe birds. In 1975, the reserve was classified as being of international significance, mainly as a habitat for waterfowl and coastal birds. The territory of the reserve is an important place for the rest and wintering of migratory birds in the Caspian region, where many bird species from northern Europe stay. A typical feature of the Gyzyl-Agach reserve is the extreme dynamic connected between the variation in the level of the Caspian Sea, the wandering of the Kura and Araks River beds, and anthropogenic activity. At present the territory of the reserve is coastal lowlands, which is below sea level and with a different set of natural and artificial water reservoirs. The maximum height is in the Kulagin area in the center of the reserve – 24.5 m below sea-level; the minimum height varies depending on the level of the Caspian and during the period of the reserve's existence has ranged from 26 to 29 m; in 1995 it was 26.4 m. At present the relief of the reserve is characterized by the alternation of low (up to 1 m) ridges and open hollows and old silty riverbeds. In some places there are separated former riverbeds – akhmazes; for the northern part lowlands with salines are typical. There are 248 species of birds in the reserve, including *Francolinus francolinus*, grey goose (*Anser anser*), white-fronted goose (*Anser albifrons*), Little bustard (*Otis tetrax*), *Plegadis falsinellus*, *Platalea leucorodia*, *Nycticorax nycticorax*, *Phoenicopteri*, *Branta ruficallis*, peregrine falcon (*Falco peregrinus*), *Pelecanidae*, buff-backed herons (*Cochlearis cochlearis*), pond herons (*Ardeola ralloides*), swans and others. The rise in the level of the Caspian has resulted in the formation of vast shallow gulfs with rich feeding grounds, due to which the number of wintering waterfowl has increased. The great concentration of ducks and coots on the open areas of the gulfs, pink flocks of feeding flamingos (*Phoenicopteri*), white clouds of swans, white herons standing alone in the water. Rallidoe and tumerous

other Limicolae and typical features of a winter view of the Gyzyl-Agach reserve. On the migration route along the western coast of the Caspian great flocks of migratory birds feed and rest. Ducks and swans are attracted by the shallow waters that are rich in sub-water vegetation and mollusks. Flocks of geese and little bustard (*Otis tetrax*) feed in semi-deserts. The mild climate creates favorable conditions for the wintering of hundreds of bird species. In some years 5-7 million birds have wintered here. There are also wild boar, wolf, jackal, jungle cat, badger, otter, fox and other mammals. There are 54 species of fish in the waters of the reserve: sazan, pike perch, *Rutilus frisii kutum*, Mugilidae, Salmonidae and others.

Name: Ilisu State Reserve

Year of foundation: 1987

Area (hectare): 17381,5

Location: Within the territory of Gakh administrative district, southern slope of the Major Caucasus, between Zagatala and Ismaili reserves.

Description: The Ilisu State Reserve was established for the protection and restoration of the natural complex of the central part of southern macro-slopes of the Greater Caucasus; the preservation species of flora and fauna, and the localization of centers of erosion to lessen the threat of mud flows. The relief is formed by a combination of mountain ridges and deep river valleys.

The climate is conditioned by the geographical location of the territory, which is protected from the north by the Major Caucasus Ridge, the area's height amplitude and the highly indented relief. The favorable climatic conditions (soft winter, mild summer, warm spring and autumn, plenty of precipitation during the vegetation period, absence of prolonged droughts and strong frost) contribute to the forming of luxuriant vegetation, particularly, forest vegetation. The main protected objects are the natural complexes of the middle area of the macro-slopes of the Greater Caucasus.

On the territory of the reserve there are about 300 vascular plants with more than 90 species of the arboreal-shrub type. The flora of the reserve includes medicinal (about 50 species), endemic, rare and endangered species. The yew-tree (*Taxus baccata*) and Raddle birch are included in the Red Book. 93% of the state reserve is under broad-leaved forests, where oak, beech and hornbeam are dominating. Also, there are lime, nut, chestnut, ash, maple, etc. More than 150 species of vertebrates inhabit the territory of the reserve and its fauna is the same as that of the southern slopes of the Greater Caucasus Range. On the territory of the reserve there are aurochs, deer, chamois, roe,

bear, wild bear, marten and others. Its rivers are inhabited by Forea, Barbus, etc. Amphibians are represented by the tree frog, green and common toad, frogs of Asia Minor and Caucasus. Reptiles are represented by 12 species. The territory of the reserve is inhabited by more than 90 species of birds belonging to 11 orders: black hawk, goshawk (*Accipiter gentilis*), kite, golden eagle (*Aquila chrysaetus*), *Gypaetus peregrinus*, bearded vulture (*Gypaetus barbatus*), black vulture (*Aegypius monachus*), peregrine (*Falco peregrinus*), eagle owl (*Bubo bubo*), long-eared owl (*Asio otus*), scops owl (*Otus scops*), *Picnae*, etc. There are more than 60 species of migrant birds. Six species of vertebrates are included in the Red Book: wood snake (*Coluber*), golden eagle (*Aquila chrysaetus*), bearded vulture (*Gypaetus barbatus*), duck hawk (*Falco peregrinus*), etc.

Name: Ismaili State Reserve

Year of foundation: 1981

Area (hectare): 16,740

Location: Within the territory of Ismaili administrative district.

Description: The Ismaili State Reserve was established for the protection of the natural complexes of the central part of the southern slopes of the Major Caucasus Ridge. It consists of two parts; the distance between them is about one kilometer. The Topchi area is situated at a height of 800-2250 m above sea level. Its length is 18 km, its width is 6 km and area is 5589 hectares. The Galinchchi area is situated in the eastern part of the Alazan Agrichai valley, at a height of 600-650 m and this part protects mainly the natural forests of *Quercus Castaneifolia*. The organization of the reserve was conditioned by the necessity to protect, restore, study and reproduce the rare and endangered species of this region's fauna and flora. The Topchi area has a mountainous relief and the ridges and valleys of meridian direction alternate with plateaus. With the increase in the absolute height of the area, sediments of quaternary, tertiary, Jurassic and Cretaceous periods alternate with each other. In the Galinchchi area quaternary sediments with tertiary terrigenous and carbonate strata prevail.

The vegetation of this region was formed during the quaternary period but the local flora has preserved some tertiary species, for example, *Taxus baccata* and *Quercus castaneifolia* are included in the Red Book. In the Galinchchi area forest of oak-trees and hornbeam-trees are developed. The typical species of Hirkan flora – *Quercus castaneifolia*, which grows here – is of particular interest. 112 hectares of the territory are forest consisting of this tree. The forest species are mainly represented by beech, hornbeam and oak; also there are forests of apple and ash. The rare forest of the

tertiary period, which consists of *Taxus baccata* and *Quercus castaneifolia* are of particular value. During the last century forests of this area were intensively felled. This resulted in the replacement of beech – oak forests by hornbeam forests with underbrush of shrubbery and bushes of hawthorn, comel, dog-rose, meddler, cherry-plum and others.

There are approximately 170 species of vertebrates in the reserve. In its rivers there are Forelle, barbus and others. Amphibians are represented by six (6) species. *Triturus cristatus*, which are rare in Azerbaijan, inhabit the forest zone. There are 17 species of reptiles in the reserve: swamp turtles, Caspian and Mediterranean turtles, *Coluber jugularis*, *Coluber najadum*, banded chicken snake (*Elaphe quadrivittatus*), *Telescopus* or *Tarbophis caucasicus*, *Vipera lebetina* and *Coronella austriaca*.

Name: Pirguli State Reserve

Year of foundation: 1968

Area (hectare): 4,274

Location: Within the territory of Shamakha administrative district, at the eastern end of the Major Caucasian Ridge.

Description: The Pirguli State Reserve was organized for the protection of the typical natural complexes and landscapes of the Shamakha Plateau, which is one of the most beautiful regions of the southeastern part of the Major Caucasian Ridge. The area of the reserve is 1,521 hectares, 1,362 hectares of which are forest tracts, where 45 rare and endemic species occur. The reserve consists of 3 parts: Arakhchi – situated on the slopes of the Gart and Girkh-bulag mountains in the upper area of the forest tract (1,600–2,000 m above sea-level); Pirguli – covers the forest part of the Pirguli mountain (1,500 m) and is represented by a landscape of middle area forest tract, and Jangi which is a low mountainous plot covering the whole northern slope of the Jangi mountain (800–1100 m). The relief of the reserve area is mountainous, strongly indented; watershed ridges alternate with canyons of a depth of 600 m. there are several rock denudations, landslides and small ravines of mud flow origin.

The main protected objects are: forest ecosystems preserved near the eastern border of the modern forest area on the southern (southeastern) macroslopes of the Greater Caucasus; also some species of flora and fauna, such as *Taxus baccata*, which are included in the Red Book. The dendroflora of the reserve accounts for 60 species, of which Caucasian hornbeam, oriental beech (*Fagus orientalis*), *Quercus sibirica* are the main forest forming types of trees. The animal world of the reserve is practically

unstudied and there is only some information about the fauna of the mammals. Among insectivorous species there are Crocidura, common hedgehog and mole. There are seven species of rodents. Among predatory mammals there are brown bear, wolf, jackal, fox, lynx, badger, pine and stone marten and weasel, the hyena, which is a rare species for the whole Caucasus fauna has been observed here. Wild bear and roe, also chamois and red deer live in the reserve permanently.

The natural environment, where Pirguli reserve is currently situated, has been exposed to evident anthropogenic changes during the last centuries. Vast territories of forests have been felled, in some places they were replaced by secondary, mainly hornbeam forests. In many places there are meadows located after forests. Erosion processes have increased and became more widespread. Also the water reserves in springs and rivers have decreased. Elimination of forest felling and a certain regulation of cattle pasteurization stopped the process of natural degradation, and with the establishment of the reserve the natural landscape has started to be restored.

Name: Turian-Chay State Reserve

Year of foundation: 1958

Area (hectare): 22488

Location: Within the territory of Agdash, Oguz, Yevlakh, Gabala administrative districts, on the right bank of the River Turian-Chay.

Description: The Turian-Chay State Reserve was established for the protection and restoration of arid-arch light forest and other natural resources; and for the localization of centers of erosion at the foothills. The reserve is situated on the spurs of the Buz-Dag Ridge, in the southern foothills of the Major Caucasus, on the right bank of the River Turian-Chay in the Agdash area of the Republic. Its territory lies at a height of 400-650 m above sea level and extends for 35 km from east to west and for 5 km from north to south. The reserve is situated in an area of semi-desert and arid light forests, which mainly consist of pistachio, juniper, oak, having an important soil protecting, water protecting and climatic significance. In the relief of the reserve lowland mountains dominate with the peaks: Pirsei-Dag (609 m), Nulbon-Dag (437 m), Archan-Dag (476 m), Olmes-Dag (544 m) and others.

As a rule they have steep, in some places denudated eroded slopes, and are separated by deep narrow valleys. The northern slopes are more gentle and covered with forests; the southern slopes are steep and strongly eroded. The general process of wind erosion has developed on the territory of the reserve. On the territory of the

reserve 60 species of trees and bushes grow. The main types of sparsely growing trees are: Pistacia, fudian juniper (*Juniper polucarpus*), prickly juniper (*Juniperus oxicedrus*), *Quercus Iberica*, ash-tree, *Celtis caucasicus* and p omedranate. Moreover, *Quercus Iberica*, *Populus*, willow, alder, *Elaeagnus* and other trees also grow in this area. Two dendraflora species of the reserve – *Juniperus* and pomegranate are included in the Red Book.

There are 24 species of mammals and 112 species of birds, 20 species of reptiles and 3 species of amphibians in the reserve. Among the birds there are partridge (*Alectoris kakelik*), Columbi formes, *Cercheneis tinnunculus*, griffon (*Gyps fulvus*), black vulture (*Aegypius monachus*) and others. Among mammals there are wild boar, brown bear, badger, stone marten, lynx, jackal, European wild cat, hare and others. Among reptiles there are: *Coluber jugularis* and *Vipera lebetina*. Along the former river-beds and channels the Caspian turtle can be found, and on the slopes of the mountain the Mediterranean turtle can be observed, which, as well as the *Coluber caucasicus*, is included in the Red Book. The main protected objects are the model natural complexes of the Boz-Dag Ridge with the developed pistachio-arch light forests, area of semi-desert, arid and tugay vegetation. The state of arid light forest on the Boz-Dag are of great concern primarily because in spite of the productivity of the majority of tree species, including juniper, the regeneration of these forests in general is very slow. The establishment of the Turian-Chay reserve brought -an improvement in the situation with the regeneration of these forests. During the 40 years of the reserve's existence the pistachio-juniper light forest has extended its area and the general quality of trees has increased. The replacement of juniper by pistachio has almost stopped. Shrubbery and herbage have also developed well, considerably reducing the process of soil erosion.

Name: Zagatala State Reserve

Year of foundation: 1929

Area (hectare): 23844

Location: Within the territory of Zagatala and Blakan administrative districts, on the southern micro slope in the middle part of the Major Caucasus Ridge.

Description: The Zagatala State Reserve was established on an area of 25218 hectares, including 48 hectares of water reservoirs. During the period of its existence, the reserve has belonged to different organization and its area and borders have been changed. The reserve is situated at a height of 650 – 3,646 m above sea level. The reserve territory has a complicated relief due to spurs of the major ridge extending to

the south and south-east: Agkema, Katslar, Rochigel, Pichgel, Khalagel, Ruchug, Mrovdag and others, which are separated from each other by deep river valleys (canyons). Slopes with a steepness of 40-80 m and more occupy an area of more than 450 hectares; slopes with a steepness of 25-40 m prevail. The relief reflects the activity of glacier and other forms of erosion.

The asymmetry of the river basin is typical: the mountain slopes, deep canyons and valleys are sharply shaped. The Zaqatala reserve was organized with the purpose of protecting and studying the fauna and flora of the southern slopes of the Major Caucasus. The reserve territory is referred to by botanists as the Iberian area of the Caucasus flora province. At the end of the Tertiary period, the forests of this area had a different composition, with a considerable touch of elements of the Hirkan forests, and were much richer than the present ones. Contemporary flora of the reserve has more than a thousand species. Such representatives of ancient plants as rhododendron yellow, *Laurocerasus officinalis*, Caucasian bilberry-bush, *Taxus baccata*, maple, Polypodiophyta and others are preserved on this territory.

The main forest – forming species of the reserve – *Fagus orientalis*, as well as *Quercus iberica* and *Corylus colurna* are also referred to as ancient plants. The representatives of rare plants: *Taxus baccata*, apple-tree, ash-tree, birch-tree, cherry-tree, pear-tree and others are observed as well. The fauna of the reserve is rich in species composition. They are: Dagestan aurochs, chamois, red deer, roe, brown bear, fox, badger, *Mustela nivalis*, pine marten and stone marten, lynx, squirrel and others. There are 104 species of birds, including some birds of prey: long-eared owl, golden eagle (*Aquila chrysaetos*), *Cerchneis tinnunculus*, *Neophron percnopterus*, griffon (*Gyps fulvus*), bearded vulture (*Cypaetus barbatus*), black vulture and others. There are some rare, specially protected species of birds: bearded vulture (*Gypaetus barbatus*), golden eagle (*Aquila chrysaetos*), peregrine (*Falco peregrinus*), *Tetraogallus*, *Accipiter badius*, which are registered in the Red Book.

Name: Eldar pine-tree State Reserve

Year of foundation: 2004

Area (hectare): 1686

Location: Within the territory of Samukh administrative district.

Description: The Eldar pine-tree State Reserve was established to preserve the genetic heritage, biological diversity of ecological systems, unique forests of Eldar pine trees. The pine trees growing here are of 100-120 years old and 2-6 m high. Fauna in

this reserve area is not very variable – among animals only hares inhabit here and among birds – partridges. Eldar pine tree is included in the Red Book of Azerbaijan Republic.

Name: Shahbuz State Reserve

Year of foundation: 2004

Area (hectare): -

Location: Nakhchivan Autonomous Republic, on the territory of the Bichenek pass and Lake Batabat.

Description: The Shahbuz State Reserve was established to preserve the unique flora and fauna of the highlands in Nakhchivan Autonomous Republic. The territory lies at a height of about 2200-2400 m above sea level in the mountainous region. About 2899 types of flora and 285 species of fauna are represented in this reserve.

RESERVES

Name: State Game Reserve of Barda

Year of foundation: 1966

Area (hectare): 7,500

Location: Barda and Agdash

Description: The State Game Reserve of Barda established on the base of the Ayridjan protected area, which had existed since 1930 on forestry lands. The main purpose of the area is the preservation and restoration of the number of Phasianus, Francolinus and hare. This protected area is referred to as a fauna type area.

Name: State Game Reserve of Sheki

Year of foundation: 1964

Area (hectare): 10,350

Location: Within the territory of Sheki administrative district, at the basin of the River Ayrichay, between the roads Yevlakh-Sheki and Sheki-Oghuz.

Description: It is referred to as a fauna type of protected area, and serves to protect and restore the number of Pheasants (*Phasianus*) and other valuable birds.

Name: State Game Reserve of the Glinani (Clay) Island

Year of foundation: 1964

Area (hectare): 400

Location: Within the territory of Garadagh district of Baku city.

Description: The State Game Reserve of the Glinani (Clay) Island was established on an island in the Caspian Sea near the Apsheron Peninsula. It is referred to as a fauna type of protected area and serves to protect migratory and wintering waterfowl birds, sea-gull colonies and Caspian seal rookeries.

Name: State Game Reserve of Bandovan

Year of foundation: 1961

Area (hectare): 4,930

Location: On the border of Salyan and Garadagh districts.

Description: The State Game Reserve of Bandovan is referred to as of the fauna type and has been established for the protection and restoration of the number of Persian gazelle (*Gazella sulgutturosa*), waterfowl birds and Little bustard (*Otis tetrax*). It borders the Shirvan National Park. In its fauna and flora it is similar to the Shirvan park.

Name: State Game Reserve of Gerchay

Year of foundation: 1961

Area (hectare): 15,000

Location: Within the territory of Khanlar and Goramboy administrative districts.

Description: State Game Reserve of Gerchay was established for the protection of the population of Persian gazelle (*Gazella sulgutturosa*).

Name: State Game Reserve of Lachin

Year of foundation: 1961

Area (hectare): 21,370

Location: Within the territory of Lachin administrative district (border with Armenia).

Description: The State Game Reserve of Lachin Создан was established for the preservation and restoration of the number of bezoar goat (*Capra aegagrus*), Caucasian brown bear, wild boar and hare. At present the territory of the game reserve is under occupation.

Name: State Game Reserve of Gusar

Year of foundation: 1964

Area (hectare): 15,000

Location: Within the territory of Gusar administrative district.

Description: The State Game Reserve of Gusar was established for the preservation and restoration of the number of grey partridge (*Perdix perdix*), pheasants (*Phasianus*), roe, wild boar and hare.

Name: State Game Reserve of Shamkir

Year of foundation: 1964

Area (hectare): 10,000

Location: Within the territory of Shamkir administrative district.

Description: The State Game Reserve of Shamkir was established for the preservation and restoration of the number of pheasants (*Phasianus*), *Francolinus francolinus*, partridge (*Alectoris kakelik*), waterfowl birds.

Name: State Game Reserve of Zuvand

Year of foundation: 1969

Area (hectare): 15,000

Location: Within the territory of Lerik and Yardimli administrative districts.

Description: The State Game Reserve of Zuvand was established for the protection and restoration of the number of pheasant (*Phasianus*), partridge (*Alectoris kakelik*), roe, wild boar, Transcaucasian brown bear, leopard and rare reptile species.

Name: State Game Reserve of Ismaili

Year of foundation: 1969

Area (hectare): 23,438

Location: Within the territory of Ismaili and Gabala administrative districts.

Description: The State Game Reserve of Ismaili was established for the protection and restoration of the number of Caucasian red deer, chamois, goat, roe, wild boar, Transcaucasian brown bear, marten, Caucasian black cock, *Tetraogallus* and others. The flora and fauna are similar to those of the Ismaili reserve.

Name: State Game Reserve of Gubadly

Year of foundation: 1969

Area (hectare): 20,000

Location: Within the territory of Gubadly and Lachin administrative districts.

Description: The State Game Reserve of Gubadly was established for the preservation and restoration of the number of Caucasian brown bear, bezoar goat (*Capra aegagrus*), wild boar, roe and others. At present the territory of the game reserve is under occupation.

Name: State Game Reserve of Small Gyzyl-Agach

Year of foundation: 1978

Area (hectare): 10,700

Location: Within the territory of Lankaran administrative district, in the middle and south parts of the Small Gyzyl-Agach bay.

Description: The State Game Reserve of Small Gyzyl-Agach was established for the protection and restoration of the number of wintering, migrating, and wintering waterfowl-wader and coastal birds, including rare and endangered species. It borders the Gyzyl-Agach reserve and has similar flora and fauna.

Name: State Game Reserve of Gyzylja

Year of foundation: 1984

Area (hectare): 5,135

Location: Within the territory of Gedabey administrative district, in the area of the Gyzylja forestry.

Description: The State Game Reserve of Gyzylja was established for the protection and restoration of natural complexes on the eastern slopes of the Minor Caucasian Ridge, also for the restoration of the number of rare and endemic species of plants and animals.

Name: State Game Reserve of Dashalty

Year of foundation: 1981

Area (hectare): 450

Location: Within the territory of Shusha administrative district, in the outskirts of Shusha city.

Description: The State Game Reserve of Dashalty was established for the preservation of the unique natural complex and landscape of the Minor Caucasus. From 1992 it is under occupation and was severely damaged during the military operations.

Name: State Game Reserve of Arazboyu

Year of foundation: 1993

Area (hectare): 2,200

Location: Within the territory of Zangilan administrative district.

Description: The State Game Reserve of Arazboyu was established for the protection and restoration of the unique natural complexes of the Araks tugay forests. At present it is under occupation and is only on the verge of complete degradation.

Name: State Game Reserve of Gabala

Year of foundation: 1993

Area (hectare): 39,700

Location: Within the territory of Gabala administrative district.

Description: The State Game Reserve of Gabala was established for the preservation of forest landscapes on the southern slopes of the Major Caucasus Ridge and the restoration of the number of rare and endangered species of flora and fauna.

Name: State Game Reserve of Gakh

Year of foundation: 2003

Area (hectare): 36,836

Location: Within the territory of Gakh administrative district, on the border with the Ilisu State Reserve.

Description: The State Game Reserve of Gakh was established for protection of endangered species of animals.

Name: State Game Reserve of Garayazi-Agstafa

Year of foundation: 1964

Area (hectare): 11,970

Location: Within the territory of Agstafa administrative district, in the area of Garayazi forests.

Description: The State Game Reserve of Garayazi-Agstafa was established for protection of forest landscapes, animals and birds. There are marals, wild boars, wolves, foxes and hares.

BAKU AND VICINITIES

BIG BAKU



If the shape of Azerbaijan on a map is similar to a bird flying towards the sea then the bird's "beak" would be the Absheron peninsula with an ancient and ever young city situated on its southwest coast. The city is Baku - the capital of Azerbaijan.
COORDINATES:

Latitude: 39,39' N- 40,03' N

Longitude: 49,39' E – 49,39' E

The population is 2000000. Even though administratively Baku is separated from Absheron suburb settlements (in a total number of 32), historically they are indivisibly linked to the capital both in cultural and economical as well as in geographical terms. Due to this, the whole Absheron peninsula including the capital is called "Big Baku".

Absheron and Baku feature major transport lines: International Airport n.a. Heydar Aliev, a big port in the Baku Bay (the biggest on the whole Caspian Sea), Baku Railway station and highways connecting the capital with the rest of the country.

Major oil and gas pipelines also originate on the peninsula. Baku is a key point of the international transport corridor (Europe-Caucasus-Asia) TRASECA, in the framework of which Azerbaijan participates in restoration of a historical route, the Great Silk Road.

CLIMATE.

The Absheron Peninsula is located 29 m below World Ocean level. The climate of Baku and Absheron is of temperate warm semideserts and steppes with Absheron-specific winds. While bringing refreshment in summer the northern wind "Khazri" is chilling in winter; on the contrary, the southern "Gilavar" is heating in summer but attenuates the cold in winter. In general, however, the climate of present Baku was substantially softened by gardens and parks, lovingly cultivated by Baku citizens. While at the beginning of XX century it was often impossible to go outside due to blinding dusty winds, today's Baku has evolved into a warm and comfortable city.

MINERAL DEPOSITS

Oil, gas, building stone (limestone - "badamdash"), salt, sand, lime. Salt lakes at the Absheron include Masazir, Gala, Beyuk-Shor and Hodzhasan. There are some of the oldest oil wells in the world where people would draw oil from with buckets and the first industrial oil wells on the Absheron.

MUD VOLCANOES - A FINE MYSTERY OF NATURE.

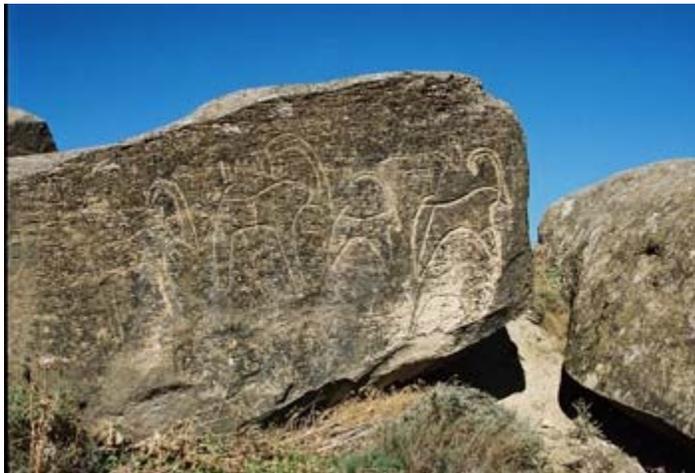
Azerbaijan is the first among the world's countries by quantity and diversity of mud volcanoes. Among 800 mud volcanoes known in different countries on Earth 400 are located within the boundaries of the South Caucasus oil-and-gas basins and among the latter 300 are located on the land of Azerbaijan, within its Caspian area of water and on numerous islands.

All known types of mud volcanoes on the world are represented in Azerbaijan. This is a genuine natural stock and laboratory of mud volcanoes. Due of this, in the last years Baku has become a center of international scientific forums on mud volcanism, geodynamics and seismicity.

Mud volcanoes also attract a great number of tourists visiting our country. Desert and rocky landscapes of Absheron with its volcanoes remind of the youth of our planet, of the ages before the advent of humans, or moon landscapes. However, the volcanoes in Azerbaijan are alive, active...

GOBUSTAN PETROGLYPHS - AN OUTDOOR MUSEUM.

Prehistoric rock drawings - petroglyphs - are an art "archive" of the human evolution on Earth. The "articles" of such archives are the first transmissions from the human "I" to the outer world. There are a few of such outdoor "archives" in Azerbaijan. One of them, the largest, is located in Gobustan, at the Baku State Reserve of History, Ethnography and Arts, near Baku. It is a rocky massif on the bottom of the southeast part of the Great Caucasus Range, near the Caspian Sea and a modern highway built on the ancient Shirvan road.



A great number of rock drawings, dwellings, ancient settlement sites and mounds have been found here. D. Rustamov and F. Muradova, a married couple of archeologists who devoted 35 years to the research of Gobustan maintain that the most ancient group of Gobustan petroglyphs is the most optimistic and in spite of the basic form of self-description presents a very informative picture of the human life in the dawn of the development of humanity. They studied about 20 rock dwellings and settlements, excavated around 40 mounds and revealed 300 new rocks and stones with drawings. However, the stones of Gobustan are not only witnesses of the most ancient ages of human life. They reflect the history of the region during the period of over 15 thousands of years, from the Lower Paleolithic to The Middle Ages.

The first researcher of Gobustan who introduced this unique place to the world science in 1939 was archeologist Izhak Dzhafarzade.

By now, over 4000 petroglyphs (rock drawings in the style of wooden engraving) have been found and studied. Among these there are pictures of hunt, fishing, domestic life, group dances, various symbols including solar (fylfot, spiral, cross), constellations, men and women (interestingly, women hunted along with men), pictures of animals -

gazelles, aurochs, lions, goats, pictures of reed boats, two-wheeled carts, human traces. There are remains of unique "plates" - depressions carved in stones and even ornamented. There are also unusual "musical instruments" - stones producing loud sounds, each stone with its own timbre. This is the "Gaval-Dash", the tambourine stone.

The rocks of Gobustan also retain the evidence of the presence of Roman legionnaires crossing this attractive region in the 1st century BC. A rock has been found here with the carved inscription in Latin written by Roman centurions of the XII Legio Fulminata. The inscription reads that the Emperor Domitianus Caesar Augustus Germanicus ruled in Rome at the time. Now Gobustan is nominated for the inclusion in the list of "World Legacy" maintained by UNESCO.

THE HISTORY OF ABSHERON.

Favorable climate-geographical and geological conditions contributed to the fact that the Absheron was already inhabited 20000 years ago (e.g., an ancient human settlement site near the village of Yeni Surakhany). The whole peninsula is studded with ancient man settlement sites and mounds dated to the Bronze Age and Early Iron Age. There are types of burial complexes with burials of anthropomorphic figures made of stone accompanied by plot pictures (villages of Dubandy, Turkani, Hashahuna, Mardakan, and Shuvelan) that are restricted only to the Absheron. More settlement sites have been found in Pirallakhi, on the lake of Zikh, in Binagadi and in Amiradzhani. This evidences that the whole Absheron was one of inhabited places in the most ancient times. However, geostrategic position of the peninsula attracted various invaders as well.



The largest settlement site on the Absheron is Mashtaga.

Here, aside of settlements dated to the Bronze and Iron Ages there are also posterior monuments: mosques: Bira Argutai (1414), Hodzha Aydamir, Gazikhana, Hodzha Kerbalai Khusein, (18th century); a mosques dated to the 13th-14th centuries with a 40 m tall minaret built later, a bath of 17th century, Ovdan (a lodgment dated to

the 19th century), mausoleums: Agilbara, Hodzha Aslan, Gasanbek, Hodzha Aydamir (18th century). "Gala" is the Baku State Historical and Ethnographic Reserve located in the Absheron village of Gala. Remained in "Gala" are ancient mosques, old roads, ovdans, an ancient cemetery (15th century), baths and settlement sites dated to the Bronze Age. Gala is a typical Absheron settlement and is sometimes called "Icheri Sheher" of Azerbaijan.

Attracting a great interest among guests of Baku is the temple of Zoroastrians - Ateshgah (the house of fire) in the village of Surakhany (17th century). It is situated on a rock where natural emergences of gas on the surface have been burning for thousands of years. Near the village of Muhammedli one can observe an interesting natural phenomenon - the emergence of burning natural gases at the bottom of the mountains. The place is called Yanar Dag (The Burning Mountain"). In ancient times there were many such places in Azerbaijan.

Ancient, prehistoric tracts - complete analogs of the mystical road tracks in Malta have been found in every part of the Absheron. Many of them lead right to the sea vanishing in the depths...

In very ancient times the city became the first sea port on the Caspian coast. Both the boats of invaders and civilian trade caravans with traders traveling from Russia and European countries were plying one of the ancient naval routes along the Volga River to Astrakhan. From here they could travel further, to the southwest - across Georgia, to the Black Sea countries, and to the east - to Persia, China and India. If the whole Azerbaijan is a country on the virtual border between Europe and Asia then Baku-Absheron is one of its main gates, through which the residents of European countries would travel to unveil the lands of Asia. Also, residents of Asian and Far Eastern countries traveling to Europe did not pass Baku by. The place emerged as one of the branches of the Great Silk Road.

Some sources mention the city of Baruka located in the ancient Caucasian Albania. Scientists maintain that this is connected to Baku. Bagavan, Atesh-i-Bagavan, Bakukh, Bakuya, Bad-Kube, Baku, Baka - these are the ancient names of our city mentioned in various written sources of the antiquity.

In the period of Shirvanshahs State formation, Baku attained even higher importance. In the 12th century, after a powerful earthquake that severely damaged Shamakhi, the capital of the State of Shirvan, Shirvanshah Ahsitan I whose wife and children also died during the earthquake, relocated the capital to Baku.

Thus Baku became of the main city of the Shirvan State. Shirvanshah got a new capital, built the fortress walls of Icheri Sheher, and surrounded them with ditches. The population was occupied in crafts: carpet weaving, production of copper and bronze

wares, weapons (many of them made their way to the museums of different countries in the world). Baku emerged as a strategic port on the Caspian Sea which favored its further prosperity.

Shirvanshahs built a powerful fleet on the Caspian Sea. During the reign of Shirvanshah Khalilullah the 1st (1417-1462) extensive building construction works were conducted in Baku; economy and culture were prospered, too. In 1501 Baku was captured by Shah Ismail Sefevi and during the reign of Shah Tahmasib (1538) the state of Shirvanshahs was incorporated to the state of Sefevids. After a collapse of the latter in the 18th century a new, independent Baku Khanate was established. At that time Russia began to intensify the development of its geopolitical strategies at the Caucasus with the territory of Baku being a crucial part of these strategies. In 1723 Peter I launched an expedition to the Caspian Sea. In the same year his armies occupied Caspian borderlands including Baku, Shamakhi, Shirvan, Derbent, and border towns of Iran. The wars between Russia and Iran ended in 1813 with the Gulustan peace treaty by which Azerbaijan was divided into the North and South parts. The North Azerbaijan was incorporated into Russian Empire while the South part went to Iran.



MONUMENTS OF BAKU.

Among historical monuments of Baku the most exciting is the Old City - Icheri Sheher, surrounded by large fortress walls from three directions. There is a palace of Shirvanshahs with a complex of various structures: a burial vault, palace, mosque, Divan-khane, the Mausoleum of Seyd Yakhya Bakuvi (mausoleum of a dervish) - a

court scientist. The palace was built by Shirvanshah Khalilullah I (1417-1462) and his son Farrukh Yasar (1462-1501). An interesting monument of antiquity is Juma Mosque with the inscription of Sultan Oldzhaytu (13th century). In the narrow streets of Icheri Sheher where the width of passages between houses are often reduced to the width of stretched arms, there are many little shops where one can buy ancient and modern wares of local craftsmen: carpets, ceramics, copperware etc. Here in Icheri Sheher, in buildings of the ancient caravanserais there are restaurants where one can taste the meals of Azerbaijani national cuisine.

Viewing the city from above, from the Upland Park or from the direction of the sea it is easily seen that the city's shape resembles an amphitheater on the slopes of rocky hills, it is like a bowl on the sea coast. Rising above at the edge of Icheri Sheher, near the big Baku Boulevard is one of the most famous historical-architecture monuments of the country, a symbol of Baku, Giz Galasy (Maiden's Tower)

Giz Galasy is dated to the 12th century, researchers maintain that the Tower was of military and defensive importance and was a part of the whole complex of defensive structures originating on the northern borders of Azerbaijan (at Derbent Fortress), Gilgichai Defensive Structures (a long wall, originating in the sea with many fortresses along its extent and ending in the mountains with a big tower called Chirag-Gala).



However, not all secrets of Giz Galasy have been revealed. For instance, there are facts supporting the view that the Tower was built in much earlier times. For many residents of Baku the Tower, a unique example of the history and architecture of the country, possesses not only cultural, defensive (astronomic) but also esoteric

importance. City folklore contains many legends both about the Tower itself and about its name.

It has been speculated that on the Caspian Sea, not far from Baku, there was another tower of the same kind. However, only the following information can be considered reliable. In 1235 Shirvanshah Fariburz III built fortifications on the rocky islands of Bail bay (in the vicinity of the present Baku, the oldest region of oil production). There was a castle in a shape of an irregular rectangle with the length of 180 m and the width of 40 m. The castle was surrounded by fortress walls, 1.5-2 m thick and had a 15 m tall watch tower. Extending along the upper part of the fortress wall there was a 400 m-long inscription describing genealogy of Shirvanshahs dynasty. The inscription on one of the remained stones reads "Bender-i-Baku" (Port of Baku). It was a naval fortress guarding the approaches to the city since Shirvanshahs had a strong fleet already in the end of the 12th century. In the 13th century the fortress was besieged by Mongols who destroyed many of its structures with their battering rams but ultimately failed to capture it. The island with the castle was located 350 m from the city. After the earthquake in 1306 and subsequent increase in the Caspian Sea level the island with the castle became scuttled. During archeological excavations about 700 stones with inscriptions along with fragments and whole pieces of earthenware and copper coins of Shirvanshah Kershasb (13th century) were raised from the bottom of the sea. Some of the stones were later exhibited in the atrium of the palace of Shirvanshahs. The submerged fortress is now known as "Shahri Saba", "Sabail Castle" or "Bail Stones".

Nowadays Baku is a modern city with a delicate charming of the East and features of a modern megapolis. Here, in the capital, there are museums of: History of Azerbaijan, Literature, Musical Culture, Carpets, and Theater. There are also memorial Museums of: U. Hadzhibekov, the founder of modern Azerbaijani music, a renowned Azerbaijani composer Niyazi; composer and jazz performer V. Mustafazade, Baku-born world-famous musician M. Rostropovich, writers and playwrights G. Javid, Jabbarli, M.S. Ordubadi and a unique museum of miniature books.

There are also a number of exhibitions, concert halls, art galleries, theaters, sport complexes, stadiums, swimming pools, numerous hotels and restaurants.

Around Baku, along the whole perimeter of the Absheron peninsula there are a number of beaches. One can bathe and tan on the Absheron five months a year since there are many warm and hot sunny days. When the sun goes down and the heat of summer days fades away discos and night clubs begin their work on the beaches. At the service of tourist and vacationers are plentiful of hotels, resorts and health centers on the Caspian Coast.

GARABAGH



KARABAKH: BARDA-AGDAM-SHUSHA-KALBADZHAR

The ancient Karabakh is the heart of Azerbaijan, the land that gave the country a great number of talents. Karabakh is not only the unique nature, the landscapes included in the List of Natural Monuments of the Republic; it is also a constellation of gifted individuals - poets, writers, musicians, khanendes (performers of mugam - the national music). Karabakh is the cradle of the Azerbaijani music. The nature and resources of this ancient land leave no one untouched. Probably that is why this beautiful land is occupied now...

BARDA



The district of Barda is located in the center of the Karabakh Plain, in the northwestern part of the Kura-Araz lowlands, on the bank of the Terterchai River. The region is also traversed by the Khachin River. The Kura River flows along the border of the district. The large Upper Karabakh channel has been built in the district. There are

two beautiful lakes along the road from Barda to Terter and one more (Agali) is located near Barda.

Forests occupy 6856 km of the district's territory. The land features many relict trees; there are oaks, hornbeams, garagaches, walnuts and plane trees. The fauna includes wolves, foxes, jackals, wild boars, hares, pheasants, geese, francolins etc. Hunting and fishing are available.

Natural conditions favor melon, cotton and grain growing.

Until the collapse of the USSR, the district was an All-Union Sanatorium and a popular resort, largely owing to the land, rich in healthful mineral springs. The most acclaimed are Istisu, located 3 km. from Barda, and the spring near the village of Muganli.

The town of Barda is located 314 km from Baku. In Arabian written sources (Ibn Khovgal), Barda, located in the western part of Azerbaijan, was mentioned as "The Mother of the Arran Towns". In the past, the town was a key stop on the Great Silk Road. Barda was known to the neighboring nations already two thousand years ago. There was even a legend claiming that the town had been founded by Alexander the Great; the legend was mentioned in the works of such ancient authors as Balazuri and Kazvini. Since the 6th century BC, Barda became the capital of Caucasian Albania.



Archeological expeditions revealed ruins of an ancient town near present Barda. Numerous objects found there evidence the high level of culture, trade and crafts: jewelry, forging, pottery, silk production, woodworking and carpet weaving.

This was a town with advanced infrastructure: archeologists found underground water communications and sewer systems built with the use of ceramic pipes. The streets of the town were cobbled; red brick was used in construction works. Money was coined at the mint. The findings indicate established links between Barda and the adjacent towns of Azerbaijan and the whole Middle East. Archeologists have also found objects of material culture covering the period from the 2nd millennium BC to the Late Middle Ages. Many architectural monuments remained to the present day. They include

remainders of the famous bridge across Terter (7th-9th centuries), the mausoleums of "Akhsatan Baba", "Guloglular" (with the burial of Bakhman Mirza Gadzhar, a famous scientist) built by Akhmed Ibn Ayub al-Khafiz, an architect, "Imamzade" (scientists believe this mausoleum to be the place of Sheikh Ibragim's burial). There is also a square-shaped cob fortress.

As the capital of Caucasian Albania, Barda became the religious center of the Albanian Christian Church in 552. Christianity in Caucasian Albania was introduced by Syrian missionaries.

However, since the first half of the 7th century Barda became an arena of Arabian - Khazar wars. During the reign of Caliph Muawiyah (661-680), Barda was restored and surrounded with fortress walls. The Arabs garrisoned the place as an outpost against Khazar invasions. The population of Barda at that time was estimated at 100,000 inhabitants - quite large for a town in those times. That is why Mugaddasi, an Arabian writer, called Barda "The Baghdad of this region".

Since the collapse of the Caliphate and until the nearly end of the 10th century, Barda was a part of the Salarids State. There is an interesting event in the history of Barda. In 944 Vikings, heading out the Kievan Principdom and sacking everything there was to sack, reached Kura. According to the records, the Vikings troops were quite large in number, from 30 to 50 thousands men. For a short time, they managed to capture and hold Barda. However, after a few months the Vikings, many of which had died of unknown illnesses, left the town without a fight.

More serious were results of the Mongol raids. The town was severely damaged during the invasion of Tamerlane (15th century). After the devastation by Persian Shah Nadir in 1736, the town did not recover. It fell into decay and became merely a small populated place within the Karabakh Khanate (the end of the 18th century).

In the past, Barda comprised the sharply delineated center of the town - Shahristan, surrounded by fortress walls, and Rabata - residential quarters of artisans, craftsmen and merchants. There were quarters of blacksmiths (present village of Gara Demirchiler), potters, stonemasons, wood engravers tanners etc. It was a town of beautiful fabrics, ceramic and glass ware, embellishments made of common and precious metals. A great number of the famous "Karabakh Type" carpets (both with and without nap), made by Azerbaijani craftsmen, were produced in Barda. This was a genuine Town of Craftsmen, praised by the famous Azerbaijani poet Nezami Ganjevi in his poem "Islander-Name".

The ancient town was glorified by Gazi Mahiatdin Bardi, a prominent political figure of the 14th century, progressive jurist and scientist Muhammed Ibn Abdulla Abubekr Bardi (died in 961), renowned in the East, the author of "The Answer to

Dissidents" (regarding the Muslim law). His works indicate democratic and progressive views of their author.

AGDAM



Remained on the territory of the district are numerous ancient architectural monuments. They include the Mausoleum of Khanaoglan (17th century), a caravanserai (18th century) in the village of Shahbulag, a mosque (17th century), The Palace and Mosque of Panahali-Khan, "Gutlu Musaogli" mausoleum (14th century) in the village of Khachinturbetli, two mausoleums and a mosque in the village of Papravend, a cave temple dated to the Christian period of Caucasian Albania, carved out on the northern slope of the Bozdag Mountain.

The town of Agdam is the administrative center of the district, located 362 km from Baku. Agdam was also one of the large towns located on the Karabakh plain. Turkic tribes would often build small defensive fortresses on lowlands (the word "Agdam" is translated from the ancient Turkic as "a small fortress").

Later the word gained its modern meaning of "light, white" - connected to the fact that one of Karabakh Khans, Panahali, built a house of white marble here, in the 18th century. It was a whole complex of harmonic structures - an imaret of white stone.

The town houses an unusual museum - The Museum of Bread. The museum's collections include unique artifacts - archeological findings relevant to bread and grain growing. There are petrified seeds, grain graters, hand mills, ware, ancient books, manuscripts, various documents describing the history of tillage, farmers' tools (sickles, ploughs, threshing boards) etc.

SHUSHA



The town of Shusha is located 373 km from Baku. The town's name owes much to the splendid clean and transparent air of the land. "Shusha" is literally translated as "glass" (Azerbaijanis usually associate clean air with transparent glass). This is one of the most beautiful towns of our country, blessed by nature with unique springs - Isa Bulag, Turshsu, Sakina Bulag, Isti Bulag, Soyug Bulag, Yuz Bulag, Girkh Bulag, Charikh Bulag and many others.

The foundation and subsequent prosperity of the town are connected to strengthening of the Karabakh khanate. From two sides the town is screened by remained city walls, once heavily fortified. The town was founded by Panahali Khan, a Karabakh ruler (1756-1757). He built a fortress here and named it Panahabad. Later it was renamed into Shusha, the name of a village nearby. Panahali Khan also built other fortresses - Bayat, Shahbulag and reinforced the fortress of Askeran. In the 18th century Shusha emerged as on of the most important towns in Azerbaijan. It was surrounded by tall and thick fortress walls. A number of craftsmen's quarters were built, merchant routes connected Shusha with Persian towns and Moscow, the town began coining its own silver money - Panabadi.

Travelers have always admired this beautiful town, located high in the mountains. "Its houses are regular, beautiful, tall and lit through numerous fine windows. The town is built of stone from the rocks it is situated on. Every street is cobbled with wide slabs; roofs are made of boards" - these are the impressions of V. Vereshagin, a Russian painter.

The quarters had indoor galleries with stone pillars, market squares were large and the town's main square - Meydan - housed rows of shops and a two-storied caravanserai. There was also a cathedral mosque with two minarets.



Located near the border of the town was the "race track" - Dzhidir Duzu. It was located near the deep canyon of Dashalty. Steep staircase steps of Girkh Pilakan (forty steps) led downwards to the river of Dashalty, to the secret cave of "Khazina Gala" (the fortress of treasures). Every guest of Shusha would visit this place.

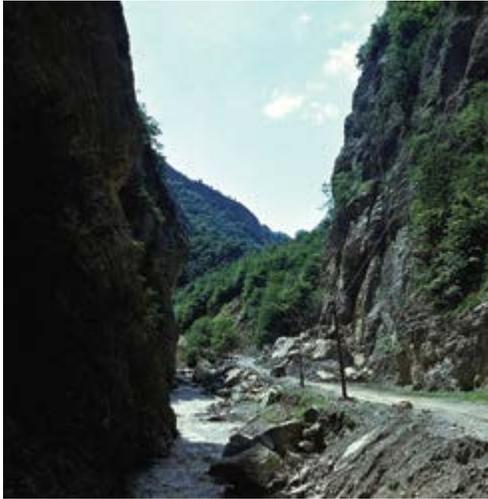
To count all ancient monuments of architecture and art in Shusha is not an easy thing to do - only the number of architectural monuments is estimated at 170, monuments of arts - 160. They include house museums: of Khurshud Banu Natavan, a poetess, museum of General Mekhmandarov, a participant of a heroic defense of Port Arthur, prominent composer Uzeyir Hadzhibekov, singer Bul-Bul, poet and painter Mir Mohsum Navab, there are the castles of Ibragim Khan and his daughter, Gara Beyukhanum, "Ganja Gates", the fortress wall etc.

The town is often called the "conservatoire of the East". Shusha is a hometown to many prominent Azerbaijani singers, musicians, great composers and conductors - Dzhabbar Garyagdi Oglu, Gurban Primov, Bul-Bul, Seid Shushi, Khan Shushi, Rashid Beibutov, Uzeyir Hadzhibekov, Niyazi, Fikret Amirov and Suleyman Alasgarov.

It is also a hometown to writers S. Akhundov, A. Agverdiyev, N. Vezirov, poetess Khurshud Banu Natavan, poet Kasumbek Zakir, sculptors and painters T. Narimanbekov, Dzh. Garyagdi and others.

Located near Shusha is the town of Khankendi, first mentioned in written sources of the 9th century. It was founded by a Turkic tribe whose name, Verande, became the original name of the town. In the end of the 18th century the son of Panahali Khan, Mehti-Kuli Khan founded a large settlement on this place and later gave it to his wife, Peridzhan Begim. In the 1923 the town was renamed into Stepanakert but after the collapse of the USSR it regained its original name.

KELBADZHAR



The district of Kelbadzhar is located on the slopes of the Lesser Caucasus. Its administrative center is the town of Gelbedzhar (translated as "high pass" or "highland"). The town is located 445 km from Baku.

The area is famous for its mineral springs, including thermal ones. The most famous of those, Istisu ("hot water") gave the name to a local resort. Other healthful springs are located 2000-2400 m above sea level, on the banks of the Terter River. In terms of chemical composition their waters are almost identical or even superior to waters of the world-famous Karlovy Vary springs (Czech Republic).

It has to be mentioned that natural landscape, historical-architectural monuments, transit-communication set of Upper Karabakh and surrounding districts, occupied by Armenia, have been destroyed by Armenians, in a word, tourism infrastructure of top the region has fully been destroyed.

Source: <http://www.tourism.az/>

21ST CENTURY – SOCIETY OF KNOWLEDGE

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Necessity of intellectualization of development of the society Bill Gates says that every product of Microsoft will grow old in four years. This gives rise to the question: will Microsoft itself or its rival make it get outdated?

The society of 21st century will be the society of knowledge, much more complex and full of competition, than all other societies existed till today, this competition will be spread equally as on the world, so on the organizations and the persons individually. Reason to it is that information revolution allows incredible growth of distribution of knowledge. It makes knowledge universally available. Taking into account the fact that information moves so easily and rapidly. Every company, including governmental organizations, in the society of knowledge shall be globally competitive, notwithstanding the fact, that most of them will be local with their activities and markets. This happens because with telecommunications and internet every consumer is informed about the tendencies existed in modern world, what is the sales price of this or that product at any point of the world.

The economy based on new knowledge requires great dose of education and, in the first place, the manner of uninterrupted learning. That is why continuous learning, so-called Adult Education in the USA is one of the most increasing field. The system of universal, compulsory education, which is financed by the government, is the largest social discovery of the mankind. This disconnected chain between income of the family and education. Low income and low level of education of one generation automatically give rise to the same in the following generation.

Knowledge, as basic resource, differs fundamentally from all other traditional resources, such as, land, work force and capital. It is not bound to one specific state. Under the conditions of globalization, it is transnational, easily transferable from one place, to another, from one country to another. It may be created under the conditions of telecommunications and information revolution everywhere, as in Shatili, Barisakho or Zugdidi, so in London and at the end, it is changed very rapidly. Only thing, that may be foreseen, is that relative priorities of the state, organization and the person will soon become doubtful and absolutely new pretender will be the rival and author of this challenge.

Under such conditions there is no justification to incompetence and low-effectiveness. There will be no educated and uneducated countries, knowledgeable and ignorant societies. Adult Education means continuous education for well-educated and conscious adult people. Teaching is traditionally terminated when business career is started.

That is why the structure of new Georgian economy shall be oriented towards creation of the product of knowledge. Intellectualization of citizen makes permanent

actual theme. That is why we have decided to dedicate this Chapter to the investments and management of the process of investments.

We consider knowledge to be the best social wealth, the most important valuable, as well as human intellect and not minerals or material wealth created by a human.

It is known from ancient times that “the best thing that a person could own is knowledge”. It is knowledge that creates wealth.

As for scientific (and not only scientific) knowledge, as product of intellectual work, in the process of using it not only maintains its consumer features, but, on the contrary, it is filled and enriched. Knowledge gives rise to new knowledge. That is why this is continuous process, which is transferred from one generation to another and each generation gives something new to the accumulated knowledge.

This specification of knowledge was understood by Ilia Chavchavadze. He said: “Knowledge looks like a candle not only with its burning down and quenched; once lit knowledge will never burn down: it goes from father to son, from son to the grandson, becoming bigger and stronger”.¹

At the different stages of development many scientists, writers and social figures touched upon this actual problem. “The country, which doesn’t take care of development of science, has no future” – said Walter.

Traditional commodity, as material wealth, existing mostly in the material form and satisfying material requests of people, may be useless or lost before consuming.

If we do not foresee separate exceptions (for example, illegal possession of scientific discoveries, inventions, or rational offers by other persons and so on) knowledge is free from such danger, as information product of human intellect and knowledge is always with the human. In this regard I. Chavchavadze wrote: “knowledge is a method, though it is wealth itself and such a wealth that it accompanies a man everywhere without expenditures and envy, no one may steal or resist it”.²

Investments into the intellectual valuables essentially change material technical base of production, through rapid development and massive character of automation of manufacturing processes, which is prior direction of scientific-technical progress. It will provide growth of profitability of labor and other production resources, improvement of product quality, expanding its assortment, producing knowledge-consuming and competitive products, strengthening production rate and reduction of material-consuming. All these, of course, grant priorities to the companies using them for winning.

As inside the country, so at the global market, in the system of commodity relations, knowledge gradually occupies central place, as specific kind of product.

In the competition between the subjects of market economy time factor gains new content, as in this competition, as a rule, the winner is the entity who obtains needed information earlier than others and in more grounded form and to use it in his work on good time. The subjects, who hesitate obtaining of information, are doomed to losing in competition and bankruptcy.

¹ Chikava L. Innovative Economy. Tbilisi: Publishing firm “Siakhle”. 2006. Pg. 103.

² Same, pg. 106-107.

Together with scientific studies and investigations, as well as receiving patents and licenses, raising the share of professional education and vocational training, software, engineering and consulting services, marketing, advertisement, improvement of management and other analogue expenses is the ratio of gradual intellectualization of economy.

High knowledge consuming supports mastering of products of new kinds, development of perfect technologies, maintenance of resources, improvement of the production quality, raising economical effectiveness of production, making the warrant for winning of the company in competition.

The share of innovative sector in the economy of developed countries is being increased. Herewith, the process of computerization of functioning fields beyond other innovative sector of production is provided intensively. According to the data of UNESCO, about half of people employed in the economically developed countries directly or indirectly participate in production and processing of innovative products.

Analyze of actual data of the developed countries of the world shows up that education level of the employees in each of them is being rapidly and steadily increased, which may be explained by the fact that innovative economy is represented without high-qualified and fully developed personnel.

Accelerated development of intellectual fields (science, education, art, financial, legal and medical service, marketing, management, engineering, consulting and others) defines the level of development of innovative economy. Speaking about sectoral economical structure of the developed countries of the world, we may say that field of services today is the largest sector, which overcame such traditional sectors, as agriculture and industry, manufacturing and construction.

Together with scientific knowledge, it is important to increase the share of education, as specific products, scales of export and international turnover. They consider not only emigration of scientists, teachers and specialists, where they transfer to the audience their knowledge and experience through different form of teaching, but organization of teaching young people invited from abroad by the workers of the field of education inside own country. Australia is clear evidence to it. Important part of Australian scientists and teachers has received education at the schools in America and Europe. They conduct lectures for the students arriving from China, Taiwan, Malaysia, Asia and other countries to receive education. The school leavers arrive to Australia with pleasure, as it is twice cheaper to receive secondary level of American education at the country more acceptable to them, than at America and Europe. It is remarkable that about 10% of Gross National Product of Australia is made through these activities.

Situation is similar in Holland, where there are up to thirty large universities. This is not of little quantity for the countries with the population not more than 12 million. About 1/3 of these Universities have high international recognition, which are no less than well-known universities of the world with their potential skills and give education of high quality to their students. Thus significant part of the students are made by the foreigners and thus the institutions provide export of education, and thus make significant bit in creation of national incomes of their country. There are numbers of other countries who have taken same direction, and thus the phenomenon gains becomes of more global nature.

Investments made as by the governmental, so private structures into the intellectual valuables, i.e. share of venture capital into the total volume of the investments of the countries, will define the level of development of innovative economy.

From the point of innovations, to establish the level of maturing of economy of the country, this latest uses numbers of rates, among which, following are important:

- The share of expenditures made by governmental, private and corporative sectors on innovative activities into the country's Gross National Product, Gross Domestic Product, National income and so on.
- According to the share of expenditures made in the innovative activities of Gross National Product and Gross Domestic Product we may generally speak about which country pays respective attention to these most important activities and in which countries they are more or less ignored, though, for more clear expression of the attitude of the government towards this important issue, it may be specified in the following form: expenditures made on innovative activities calculated with 1, 100 or thousand persons. Need and purposefulness of this may be explained with the fact that weight of each percent of the share are sharply distinguishing values of economically low and high developed countries; for example, let us take one representative from economically high and low-developed country, where share of expenditures made on innovative activities into the Gross Domestic Product of the country amounts to 3%, and in another it is not more than 1 billion US Dollars, share of 3% will be respectively 90 Billion and 30 million US Dollars.³
- Share of expenditures provided into the intellectual sector (education, science) during the year in total expenditures makes ideas how the government cares for development of state knowledge, i.e. intellectual economy.

Before learning investors in the intellectual sector it is necessary to define intellectual property. It mostly expresses human relations rising from ownership, Management, utilization and appropriation of intangible valuables created through intellectual working (discoveries, inventions, musical works and so on) and is formed as specific, special kind of property.

Product of intellectual property may be private, collective and governmental property, i.e. the biggest share comes to the private intellectual property, as its authors are the individuals themselves. Pursuant to share, second place is occupied by collective intellectual property, which makes outcome of collective mental work of the group of authors. The smallest share belongs to the governmental intellectual valuable (basically in the states built in the administrative-powerful system), as objects of such forms of property (for example, innovations related with military actions) are manufactured in relatively lower quantity.

Under the conditions of market economy, intellectual property is the product, where it is sold according to its value, pursuant to the request.

Basic producing fields of knowledge, as products, are science and education, though it is produced in such fields, as art, culture, religion and others. For today, the

³Тагирбеков К.Р., Паштова Л.Г. Инвестиционные процессы и банковская система. М. Изд. "Вес мир". 2005. Pg.51.

fact that knowledge may be sold in the form of products, as well as its place and role in turnover is being increased continuously is not disputed.

Ordinal product in the process of utilization loses its consumer features and after specific period of time it exhausts itself, i.e. it is disappeared, as a product. As for scientific knowledge, as products of intellectual work, in the process of utilization it doesn't only lose its consuming features, but, on the contrary, it is being increased and enriched.

Unlike traditional goods, knowledge is of general, global nature and one of the mostly used products, which is at the same time achieved by several consumers, though neither anybody loses anything for this reason, nor its reserves are reduced; on the contrary, it is increased and following consumer receives it in more enriched form.⁴

Traditional product (for example, Georgian tea, wine, brandy and so on) is separated from its creator upon manufacturing, being collected and then consumed gradually. This is why its production in time and space stand separately.

Situation is different in relation with the knowledge. Knowledge may exist as independently from its authors (in the form discoveries, inventions, and scientific works), so separately, unlike ordinary goods, export of knowledge existed with the author, as a rule, may be provided through transportation of its carrier (scientist, composer, editor and so on) to the desired place and distribution of their knowledge to the consumers through various means of massive information.

Intellectual Investments, as components of investment market. Investment market is a complex system concluding of various structural elements with multilateral connections.

As we have said above, objects of investment are divided into financial and material assets. Financial assets include financial and tax obligations of every kind, which are created by basic economical agents during their activities. This is cash money, deposits existed at the current account, short term loan liabilities, for example: acts and other financial documents, which confirm property right on the capital or provision of transaction on movement of financial resources.

Material assets include: movable-intangible property, plots, buildings, precious metals, products of continuous application and so on.

The concept of the market of intellectual investments. Two basic kinds of the investment market – financial and material – under modern conditions may be added with the market of intellectual investment. This latest is functioning in the form of sale and purchase of licenses, engineer-consulting services, know-how, scientific processing, products and others.

It is well known that under modern conditions investments into human capital is extremely important and profitable. This is reasoned in the works of numbers of economist. K. Sax and F. Laren speak about importance of investments provided into the human capital. They say that investments into human capital are of huge importance for market economy.

Theory of intellectual capital. Today realization of investments into the human capital is based on the theory of intellectual capital. Authors of this theory

⁴ Chikava L. Innovative Economy. Tb.: Publishing firm "Siakhle". 2006. Pg. 106.

consider intellectual capital to be complex category; it is wider than human capital, as information is considered to be independent industrial resources. Investments into the intellectual capital differ in volume from those provided into the human capital. It consists of the elements of structural capital as well, which conditions provisions provided into the devices, computers, software and trademarks. On the bases of the theory of intellectual capital they formed the concept about social partnership. This concept is based on the investments provided into the social capital. The theory of social capital means development relations of mutual support and trust between separate groups or unions, and readiness for participation in them. More educated and qualified workers have potentially more abilities to form social capital and economical macro-system of the company. On the basis of investments provided into the social capital they form subjective introduction to the attractive investment surroundings, which influences upon development of the market of intellectual investments.

Prices on the products of intellectual investments have no direct relation with the work provided on it. The value on intellectual investment products is defined upon utilization in the process of production. Herewith, the value of the products of intellectual investments is defined as monetary expression of the effect obtained through usage of this product.

Market value on the products of intellectual investments is formed as contractual price through utilization of the values of seller and purchaser. The purchaser may provide that the profit made through usage of the products of intellectual investments, is as minimum needed to reimburse expenditures made for creation of such products by the seller and those of purchaser for its realization. The product of intellectual investments is not often sold by the seller, but he transfers only the right on its usage. Herewith, contractual value on such products in practice is close to that of the purchaser.

Realization of intellectual investments at the market may be provided in the following forms:

- through issuance of the rights on licenses, know-how, trademarks and so on;
- sale-transferring of know-how, technological experience and so on. Agreements of such acts of sale and purchase from license agreements differ in the fact that the owner of know-how doesn't refuse its selling, but he refuses its patenting.
- Through engineering services;
- Through transferring of technologies, investment cooperation within the bounds of which not only sales and purchase is provided, but also their distribution for the purpose of consulting, preparing specialists, transferring drawings and technological exchange.

Engineering. Engineering is one of the basic forms of realization at the market of intellectual investments. It conditions providing various engineering-consulting services on the commercial basis. They separate engineering service into two groups:

1. service related with preparation of the process of manufacturing products;
2. Service related with provision of normal process of manufacturing and realization products. To the first group belong:

- a) Preliminary service (social-economical studies, topographic mapping and planning location; study of ground and searching for mineral resources).
- b) Projection service (preparing general plan and recommendations, preliminary evaluation of cost to be made on exploitation, preparing technical specialists and so on).
- c) Post-project service (preparing contact documentation, organization of auction, assessment of offers, conclusion of agreement, management of building, conclusion and issuance of certification considering completion of work and so on);
- d) Special service (studies related with waste utilization, various legal procedures and so on).

To the second group of engineering services belong: service related with management and organization of manufacturing process, service related with the testing of objects and so on. Under the conditions of high-qualified personnel of engineering consulting it may support in rising effectiveness of the companies, accelerate management and turnover of investment resources.

Intellectual capital needed for the production processes may be divided into four parts and represented in the form of the Scheme (Fig. 1.):

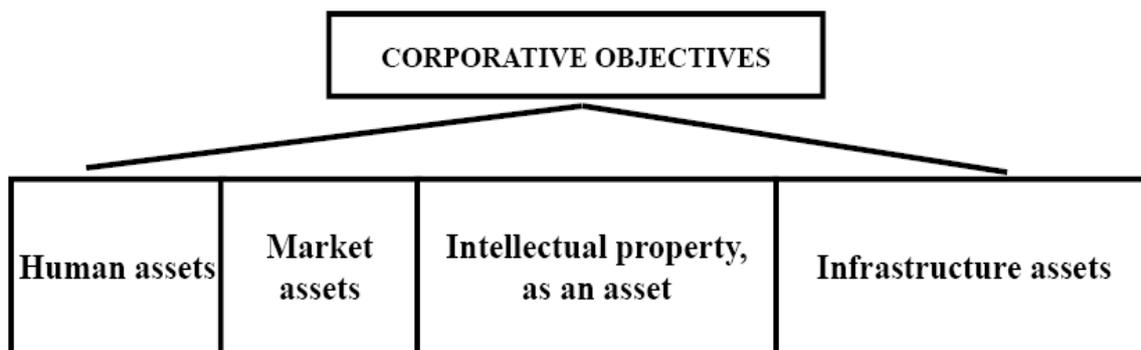


FIG. 1. INTELLECTUAL CAPITAL NECESSARY FOR THE PRODUCTION PROCESS

Market assets are such assets, which were formed to the company due to good relation between its advantageous position and elements. To the number of market assets belong: trademarks, reputation, distribution channels of regular customers, advantageous license and other conditions, which give to the company competitive priority and others. It is due to the market assets very often the companies are sold for more price than the value of own basic capital. This happened in 1987, when the company Nestle purchased assets of Rowntree for twice more price than it was declared, in which they paid 3.8 billion US Dollars.

Management of investments into intellectual capital. Management of intellectual capital begins after its identification, indexation of its parameters and stipulation of activities for its development, management and purchasing. Mentioned process includes seven kinds of activities, which are given below.

Audit of intellectual capital and processing of policy in this domain, of course, are related processes, as it is difficult to form the policy in the information vacuum, but for clarity we discuss as them as separate tasks, they are:

1. identification of intellectual capital;

2. Processing policy towards intellectual capital;
3. Audit of intellectual capital;
4. Documentation of intellectual capital and its recording to the database;
5. Protection of intellectual capital.

First stage exists in understanding and correct interpretation of turnover of intellectual capital and content of the first stage of the company (firm). The Company may be rich in material assets, but poor with intellectual capital. Intellectual capital provides corporative sustainability.

As soon as the company identifies nature of its intellectual capital, it gives rise to the necessity of processing the policy of its development and maintenance. Among objectives of policy towards intellectual capital, following may be named:

1. Provision of possibilities of achieving corporative objectives;
2. on good time and required place provision of provision of the resources of intellectual capital;
3. Explaining nature of the processes provided inside the Company to each employee and provision of identifying own role in these processes.

It is important to understand and explain relation between the strategies and objectives of the company properly. In case of their discussion separately, important assets may be forgotten.

Policy of organization towards management of intellectual capital shall be formed clearly, in order to allow people responsible for management of intellectual capital to know their rights and obligations, and respectively implement their functions. After final formation of the policy of the company, it is necessary to bring them down to the employees and partners; for this reason they create numbers of programs, which will support interested persons as in submission of information, so identification of their role and making own bit in this activities.

If the company is seriously interested in making maximal profit from the intellectual capital, which is owned by it, the company shall use computer software of maintenance of the reserves of knowledge considering intellectual capital. This is a progressive idea, but building of such systems shall conform to the requirements of people, who shall make use of such information. Formation of such requirements may be provided only in case when interested person learns this system totally, that is why, before filing resources into creation of the computer system, it would be better to create the system on the paper carrier.

Documentation of intellectual capital on the paper carrier shall be commenced with conclusion of the scheme of existed information. After detection of intellectual capital of information and processing paper system, it will be time for thinking about computer system as well. For the purpose of monitoring, the company may need to create and develop base of knowledge, which, in its turn, will give rise to the necessity of solving other objectives.

Structure of database of intellectual capital, similar to system of other computers, shall satisfy requirements of potential user: the most useful utilization of intellectual capital exists in its transferring to those, who are in need of this knowledge. Said situation has been learnt in details by the creators of expert

systems during last twenty years. The structure of database depends on the plans set by the company for its usage.

Protection of intellectual capital. Protection of intellectual capital conditions protection of intellectual, market, human and infrastructure assets. Each type of intellectual capital requires special warranty of security and, consequently, there are professionals in every field, which are able to fulfill this objective.

Protection of market assets are provided on the basis of law considering the property of intellectual capital and such mechanisms of its supporting, as advertisement of trademark and promotion of corporative name.

Protection of intellectual assets - through registration of patents, trademarks, rights on design and copyright, while protection of industrial sectors is provided on the basis of confidential agreement.

As for human assets, their protection is provided through allowing growth them to develop their qualification in the field, they operate in and which they enjoy doing and, on the other side, assure them in making bit into the activities of the company. This task is much more complex than protection of assets of other kinds. Notwithstanding this, it is worth these efforts, as it is the most profitable.

Protection of infrastructural assets, realization of activities corresponding to the provision of the security of informational technologies, in its turn, depends on solving above tasks. The specialists working in various fields are to be involved here to provide respective activities, namely:

1. Specialists of strategic management;
2. Specialists of managing intellectual property;
3. Marketing specialists;
4. Specialists of management of information technologies;
5. Specialists working with the personnel.

Most part of needed specialists might work at the company, but for management of intellectual capital to create active team, specific amendments are needed. The servants, who might fulfill such functions, do not work in the above contracts, from the point of management of intangible assets. This shall be mostly expressed in the changing of the nature of provided activities, namely, after reaction on the provided facts, they shall turn into the providers of prophylactic works.

Management of intellectual capital is continuous process.

Herewith, we tried to show and discuss in this Chapter the essence of intellectual valuables and its place in investment surrounding as completely as possible. We consider processing of natural resources and development of tourism to be approved possibility of rising economy of Georgia. Though Georgia is rich in these resources, but human talent and intellect are very important as well, which may manage above processes, providing new technological discoveries and realize it. Processing of natural resources and creation of the products of special kind is impossible without intellect, talent and other mental possibilities and in order to create production, we shall create a producer.

Peculiarities of developing sciences and technologies under the conditions of market economy⁵. Science is one of the independent fields of intellectual activities, which is developed extremely rapidly at the modern stage and on the basis of its turning into productive power, which conditions sustainable growth of knowledge-consuming process of working. We live in the age, in which the process of its turning into the leading force and universal, decisive factor of developing of social production.⁶

It is known that scientific-technical knowledge is the most important factor for economical and military strength of the country, and core to its national security. It is main condition for real welfare of people and economical growth, and important part of gross national products are made on the basis of innovations.

At the stage of transferring to the market economy, the issue of strengthening the role of government became the most actual in the fields of science, culture and economy in general. Global reality of economical development of last years of 20th century confirms increasing role of the government in the process of economical and social development.

What gave rise to the moving of science to the back? At the stage of moving to the market economy, together with the fall of material level of whole population moved spiritual and cultural valuables backward. This is why the science is left beyond actual society, magisterial interests of science. The science was in fact left with self-survival and self-provision.

If we learn the essence of the issue, we will see that the science may neither be commercial, nor profitable, from the point of the time factor (we take into account short period, otherwise no economical effect will be made without science and technologies). With their essence production of knowledge is not within the bounds of market commercial system. Economical effect of science is often postponed for indefinite time. Outcome of knowledge, as a rule, are received by following generations. At the different stages of development the society invests money in raising knowledge and, higher is this latest, the better it is for the society, its future. For development of science, the society finds resources, for which it processes complex system of financial provision of the field, in the first place in the form of budget, i.e. payments. Thus it guaranties better future and scores off with the past.

Science, as social institute, solves the issues of general-social and separate economical subjects. That is why responsibility for its existence and development is undertaken by the government. Thus it fulfills order of future generations. Consumer of functioning outcomes of science has not been born yet, while order is at face.

Pursuant to such methods of approach, during transitive period, was left beyond attention. Economy is oriented towards the system of material production and provision of incomes. Attempts of scientific commercialization, which often take place superficially, are completed unsuccessfully. In regard with the science, government very often refuses its one of the basic functions and direct liability, through obliging its function with commercialization of science in this direction.

⁵ For processing the Paragraph 5 materials were submitted by the Doctor of Economy Mrs. **M. Skhirtladze**.

⁶ **Chikava L.** Innovative Economy. Tb.: Publishing firm "Siakhle". 2006. Pg. 135.

Is it possible to commercialize intellectual field. Complete commercialization of such fields⁷, as science, higher education, culture, spiritual field of the society in general, may not be provided for just one reason – it doesn't give profit from paradigm point of view and with their nature they are not profitable; outcomes of creative work and not production process of knowledge may be commercial.⁸

The process of knowledge processing is provided in the form of turnover of knowledge and general system of accumulation, which is based on the higher school. Individual provision of knowledge may not be sufficiently effective during existed system of knowledge. This may be provided in general totality, in the system specially processed of interaction of respective subjects, which today is the authority of the government.

Commercial structures will not be able to solve this task. This is not their obligation. They are consumers of outcomes of science and for this they pay directly or indirectly. When a government finances the process of providing scientific knowledge, it is used by every scientific group and scientist.

In transitive period non-assessment of the complexity of interaction between the system of knowledge production and the production itself gave rise to incorrect solution of inclusion of such system into the market economy. In practice it is explained with the fact that services of science are to be engaged in relatively foreign and nontraditional activities. Instead of production of new knowledge and their transfer to the future generations, they created resources for themselves and scientific studies.

One condition shall be mentioned here: science, as any sufficiently socialized system, is quite stable formation. It is neither simply formed nor disappeared. The scientist is unable to refuse his/her studies with the force of conservatism. The system of production of scientific knowledge is intended to maintain itself and it is able to do it.

The science, as general social knowledge, doesn't itself create means of new labor and items of work, as well as perfect technique and technologies. Science is independent specific field of people, in which outcome of strained and creative mental work is shown in the form of new idea. It may touch upon events and processes of nature, society or thinking. This idea finds its practical usage in different directions, for example, if it consists of technical novelty, through passing respective stages (processing scientific idea, respective calculations, technical-economical statement, creation of drawings and sample construction, as well as their experiment and others) it is reflected in improved technique and involved into the social production.⁹

Numbers of unsolved problems has been accumulated in the science during last period. The system of managing, financing, planning science existed earlier, with their specific methods was based on absolutely different economical, political and

⁷ Underlined by author. There is distinction in opinions on the said issue that is why we consider it to be purposeful to continue working on it.

⁸ **Skhirtladze M.** Peculiarities of scientific and technological development under the conditions transitive economy. Collection of the works of economical and social problems of scientific-research institute existed with the Ministry of Economy of Georgia.

⁹ **Chikava L.** Innovative Economy. Tb., publishing company "Siakhle", 2006. 138

ideological paradigms. Its principles do not conform to the cardinally changeable modern world.

In the first place it is necessary to reorganize existed system of management of science. One thing is evident: **the government shall maintain social management, control and stimulation of the system of knowledge production.** This, ordinarily, gives rise to the issue of new understanding of planning science. Same may be said about financing science.

The system of planning and financing of management of science to conform to and to be acceptable for the country moving to the market system is not perfectly processed.

The society is liable and it does maintain the science. The faster it is understood, the lower will be the complexity provoked by the mistakes made in this domain.

Georgia is the country with transitive economy and in its national industry mentioned processes are realized though specifically, but still typically. If we take into account the fact that the country had quite developed scientific-technical potential in the 90s, above problem is extremely important for its economy.

Since 90s every component of scientific potential has been significantly reduced due to critical events. The circumstance that this trend has not been completed in the field yet, is of great importance. The values given in the Table below speak about it.

As seen from the values given in the table below, number of scientific institutions during last decade has been reduced for 24%, and number of those, who are employed in the field – 3.7 times; the ration of financing the field has been significantly reduced as well.

Scientific-technological potential is in the range of one of the components of national wealth. That is why the problem of its maintenance and putting into the service of national economy is one of the most important ones among those, which stand before the Economy of Georgia.

Table 1.

Values	Measurement unit	1990	1995	2000	2005	2010
1. Number of scientific institutions	Unit	131	124	102	100	31
2. Number of people employed in the field of science and technologies	Thousand persons	72.3	36.0	19.3	17.3	5,3
3. Expenditures on development of science and technologies	Million GEL	137.61	20.0	15.4	21.6	10,2

BASIC PARAMETERS OF SCIENTIFIC POTENTIAL OF GEORGIA¹⁰

Financing science and technologies. Development of social production is impossible without scientific-technical progress; and this latest greatly depends on mastering scientific achievements. Consequently, there is bilateral, interdependent and mutually agreed connection between production and science.

Development of achievements of science and technique, as well as the newest technologies defines competitiveness of manufactured products, and competitiveness of the products under the conditions of market economy is one of the living conditions. It requires great efforts from the entrepreneurs. As it is known, competitive, so-called knowledge-consuming products are realized successfully at the market. Knowledge-consuming of products is qualitative index of products manufactures on the basis of development of science and newest achievements of technique, as well as the newest technologies into the production. Growth of competitiveness of production is achieved through rising of the index of knowledge-consuming. That is why the leading high-developed states of the world, production of which differs in high competitiveness at the global market, will waste quite solid sources on development of science and technologies.

Longstanding practice shows up that for development of science and technologies, for making success in the field of science it is not enough to allocate solid sum by government and society. That is why the country shall have respective scientific potential, which will be able to master these resources maximally.

Not every state has own scientific potential. Its creation is extremely difficult and labor-consuming, related with long time and being quite expensive process. Scientific and, generally, intellectual potential is in the range of national wealth of the country and the government shall always take care of its maintenance.

The system of financing science is one of the most important elements of the mechanisms of stimulation of scientific-technical progress. In the process of financing science specific relation between the expenditures made on science, on the one hand and between development of production and its outcomes, on the other hand.

Financing science, this is the system of formation and methods of using financial resources for the purpose of developing rapid development of science and technique and their outcomes, as well as selection of other methods of their financing (centralized, decentralized) plays significant role in the issue of stimulating technical progress. Financial relations allow formation of essential system of controlling creation of resources allocated for development of science. That is why improvement of financing of science occupies one of the central places in the issue of management of technical progress.

In any society development of science in the society is directly related with the resources, allocation of which may be provided by the state for development of this field. Number and sources of these resources are greatly depended upon the fact which form of property is mostly developed in the society. Under the conditions of market economy in the leading, industrially developed countries, where traditionally

¹⁰ The Table is concluded on the basis of the data of State Department of Statistics. During last 2006-2010 years. Mentioned data considering scientific potential is not issued by the State Department of Statistics.

private property is governing means of production, science – leading field of this national industry is financed as by government, so private sector. Financing is provided in combined way as well (private and governmental sector together). For financing of science they create great number of sources of financing, which conditions increasing development of science in this country, which, in the first place, is reflected in the level and strengthening of development of their economy.

The issue considering the number of material and financial resources to be wasted on scientific development, as well as the sources to be found to finance science, is active. Material factor is the stimuli of development of science, which influences greatly upon material production.

Sources of financing science. The most important and fundamental task in the issue of financing scientific-research works, is definition of the number of general expenditures made on science and sources of its financing.

Longstanding practice of running industry confirmed that number of general expenditures on development of science is purposeful to be defined in accordance with the rate of growth of Total National Product and Industrial Products, pursuant the tasks, which stand in front of the science during the given period, as well as in accordance with the status existed scientific potential (scientific personnel, number of scientific institutions, equipment of these institutions with technical and scientific devices).

Number of the share of total national product on development of science is purposeful to be defined in close relation with the issues, which stand in front of the science during planned period, as allocation of assignments needed for development of science, generally, without respective purposefulness and scientific-technical development, as well as development of experimental construction works related with them is economically unjustified. That is why, upon definition of general expenditures needed for development of science basic problem in the country is made by definition of main tasks, which stand before national science. This latest shall be formed in the form of basic directions of development of science and technologies, as well as in the form of basic scientific-technical problems and natural and social sciences during specific period of time.

It is established that, pursuant to the economical law of scientific-technical development, at least 3-3.5% of Gross Domestic Product shall be wasted on development of science.¹¹ And more, this index is the lowest limit of expenditures made on science. Reduction of this index will give rise to the reduction of competitiveness of commodity products of the country as at the domestic, so foreign markets with numbers of negative processes accompanying it.

As we have already said, leading developed countries waste solid sums on development of science and technologies. They waste 2.7% of Total National Product on science in the USA, 2.5% - in Japan, 2.3% - in France and so on.

In the developed countries this index amounts to 0.6-0.8%. Averagely they, as a rule, have weakly developed scientific potential (some of them have none) and whole attempt of national governments of these countries is directed towards creation of own scientific potential. This is very difficult and expensive process, related with long period of time and, the main thing is that it is not depended on

¹¹ Иванов Н.И. Финансирование исследований и разработках в США. АН РСФСР, 1990. 13. pg 27-8

allocation of material and financial resources of the country. Its creation depends on numbers of factors of historical, potential and other social-economical nature.

Today method of approach towards the issue of developing science in Georgia with the status of developing country is not justified. The country has quite strong, still maintained (though today being in crisis scientific potential and caring for its maintenance and its putting into the service of the economy of the country is the objective of governmental importance.

What expenditures are wasted on science today? 2-2.5% of national income was wasted on development of science in Georgia. This happened when the same index in former United States amounted to 4.5-5%.

For today they waste 0.2% of Total Domestic Products on scientific and technological development in Georgia. This will not provide maintenance-utilization of existed scientific potential even minimally.

Role of budget in financing of science. Nature of financing service in the country is defined with the social-economical system, scientific-technical policy of the country, tasks of economical, cultural and other domains of life and, of course, material and financial possibilities existed in the country.

Under modern conditions, peculiarity of developing science is diversity of the sources of its financing. It may be general-social (governmental and collective), private and combined (non-governmental and governmental together).

We may distinguish obligatory and compulsory forms from each other. Pursuant to the method of creation, we may have centralized and decentralized sources.

One of the largest places among sources of financing science belongs to the budgetary sources. This is related, on the one hand, separate kinds of scientific-research works, namely, their general importance as for short, so long-term period, on the other hand, with the specifics of scientific-research activities.

Scientific-budgetary financing shall conform to the existed budgetary system. In the system of financing science central budgets and other municipal budgets shall be allocated in the system of financing science. The subjects participating in formation of every field of central and regional budgets shall be interested in development of the field of science. These interests are expressed by state (central government), so regional governments.

Budgetary financing, as experience shows up that it occupies important place in financing of the science of the country. In the USA it amounts to 50-55%, in Germany and England – 49-50%.

Pursuant to the traditions and structure of science of our country, it is still purposeful to have high level of budgetary financing of science. This is related with existence of large share of fundamental and humanitarian sciences (social and natural), which, ordinarily, with their nature belong to the most important, but less profitable fields with their direct economical outcomes. Development of these sciences in Georgia have important base, in the form of personnel, scientific institutions and respective traditions; on the other hand, it is motivator of scientific-technical and cultural progress of the republic. That is why they need diverse financial support from the side of the state and local government.

In our reality science was traditionally financed from the budget of the country and no such resources were allocated from local budgets. For today such practice is absolutely unacceptable. Municipal budgets shall make important bit in financing of science. This is necessary for solution of local problems themselves. This practice shall be established legally. Wide management of the resources of local budget in development of science will significantly increase financial base of science.

Budgetary resources, as they are accepted in developed countries, may be guided for finance of the activities of governmental, state, so private scientific institutions through state orders and other channels. Departmental institutions and private companies participate in implementation of scientific studies in the form of governmental orders, which are financed by the government.

Non-budgetary funds in financing of science. One of the sources of financing science is various non-budgetary funds, which provide mobilization of resources for financing of the most important sciences. In the most part of industrially developed states there are national funds of development of science and technique. They provide accumulation of the most important financial resources through avoidance of state budget and run them for financing of prior directions of native science.

To our mind, in order to finance development of science in the reality of Georgia, at least two budgetary funds shall be created. It shall be formed at the state department of development of science and technologies and organization of various ministries and authorities, as well as accumulation of resources from private structures, in order to run them purposefully for development of national science. This fund will finance the most important governmental scientific-technical programs.

Another fund will be special non-budgetary one for development of science, in which resources will be accumulated with obligatory method. Every commercial subject, company or private structure, which makes profit, shall transfer specific percent of this profit to this fund in obligatory way for development of science. We underline obligatory way of payment because under modern situation there are numbers of problems in front of the industrial subjects and they will not simply pay resources for development of science at this stage. Creation of competitive environment will necessarily provide development of scientific innovations, though this is time-related; until that it is necessary to maintain and keep existed scientific potential of the state. There is another circumstance. Purchasing scientific innovations at the global market, costs much more expensive, than mastering achievements of native sciences to the industrial subjects. In the future obligatory method of forming this fund may be amended by voluntary method.

For financing of science we may create various compulsory or charity funds. Creation of mentioned funds in our reality may become important source of financing science.

Under the conditions of market economy, when product of scientific-research activities turns into the commodity and the subject of sale and purchase, separate scientific institutions under the conditions of voluntary work will certainly have own income; with the help of them it will be possible to cover expenditures on scientific studies and other activities, as well as creation of investment resources for the purpose of widening-development of companies. Such possibility, in the first place, will be owned by the companies engaged in studies of applied nature and creation of technical innovations. For today they reduced transfer of scientific institutions to self-

financing. Reason to this is inactivity or working with small load of larger part of enterprises, existence of competition at the domestic markets, for the reason of which interest of enterprises towards scientific innovations generally did not exist.

Under the conditions of studies of scientific, applied nature and potentials of technical processing existed and still maintained in Georgia, there is acute opposition. On the basis of activation of existed enterprises and creation of new enterprises their demand on scientific services and new technique will be definitely increased. Probably, this might extend possibilities of providing scientific studies on the basis of it.

Role of private sector in financing of science. Important source of financing science is its financing by private, industrial firms. Separate scientific institutions join large enterprises (this is basically related with sectoral scientific institutions). These latest are totally interested in creation of new products and technologies, as well as organizational innovations. It would be convenient and necessary to them to allocate resources in order to provide scientific studies, herewith for their investment into the various funds and so on.

General competitive surrounding and necessity of making more economical outcome will be needed for the mechanism of participation in financing of science of resources of the enterprises. Entrepreneurs shall understand and they will understand alphabetical reality that industrial mastering by means of scientific studies will raise competitiveness of manufactured products. Expenditures made for development of science give effect overcoming these expenditures for two times.

Credit is one of traditional sources of financing. In our reality, the field of using credit in financing science was relatively small. For today this field of financing science shall be granted more importance. Development of credit system of the country, as well as growth of credit potential will support expending for crediting scientific-research institutions. Credit may be directed as towards expending material-technical base of scientific institutions, so – financing of current expenditures. Respectively, long-term and short-term form of crediting shall be developed.

On development of science credit may be issued as by governmental, so – commercial banks. These credits shall necessarily be preferential and these banks shall be interested shall be interested in their issuance for crediting activities of scientific institutions taking into account peculiarities and values of this field.

Venture capital is one of the sources of financing scientific studies, which may be innovation in our reality, though it has been being successfully used to finance science abroad.

What is venture capital? Venture capital is special form of scientific initiations and financing development of achievements of scientific-technical progress. In innovative processes it plays important role. Venture capital is mostly used in innovative processes. It foresees risk activities in relation with development of scientific innovations related with making high profit.

Foreign capital may become one of the sources of financing science. Its scales will be depended on the volume of foreign economical collaborations and the volume and intensity of scientific-technical relations of the country.

On the basis of scientific technical potential and traditional scientific-technical connections existed in our country is sufficient foundation to the development of relation of scientific-technical domain as with close neighbors, so – distant foreign countries. There are numbers of such relations formed, namely, these are joint processing of scientific-technical programs, direct financing of separate scientific-research works by other countries, support of various international foundations, issuing credits and so on.

We may suppose that processing scientific-technical works by means of foreign capital will be significantly increased on the basis of mutual-profitableness.

As we have said above, developed states waste 0.6-0.8% of Gross National Products on development of sciences. They, as a rule, have weakly developed scientific potential (some of them have none) and attempts of national governments of these states are directed towards creation of own scientific potential, and this is quite a difficult, expensive process, depending upon numbers of foreign factors.

It is prohibited to provide management with the status of developed countries in Georgia in the issues of science development. There is stable base of scientific potential here, which needs to be maintained. To our opinion at least 1.2-1.5% of Gross Domestic Products shall be wasted on development of science in close future. This will maintain existed scientific potential minimally.

Development of science and scientific service depends greatly upon volume of capital investments provided in this field. Critical situation created in the economy conditions the fact that less capital investments are allocated for development of this field. Significant part of capital investments allocated in the field of science during analyzing period is used in the form of construction and installation works. If in 1991 share of construction-installment works in gross investment amounted to 31.1%, it was increased up to 78.4% in 1994. 50.4% of capital investments were wasted on procurement of devises in 1990. In the following years it was significantly reduced (see Table 2), while capital installments were not wasted in 1993-1994.

Table 2

Structure of capital investments made on development of science in 1990-1994 (in %)¹²

	1990	2000	2005	2006	2007
<i>Share of construction-installment works in entire investments</i>	31.1	57.0	51.4	60.4	68.5
<i>Share of expenditures made on arrangement in entire investments</i>	50.4	39.4	42.3	36.0	38.5

Development of science greatly depends upon basic funds of the field, its status and structure. Renovation of active part of basic funds of science basically provides achievement of final outcomes of the field, Pursuant to the specifics of science and scientific service. Ratio of moral wear of basic funds is especially large.

¹² From materials of State Department of Statistics.

As we have said above, during last decade no capital investments are provided on development of the field to purchase devices, which affect upon the ratio of renewing basic funds of science.

Since 1993 reevaluation of basic funds took place in the fields of public industry of the Republic. This process touched upon science and scientific service as well. For today State Department of Statistics has no information about reevaluation of basic funds of the field, that is why no assessment of basic funds of science during given period.

Development of the field shall be necessarily paid more attention by the government. Hard economical status of the country, numerous problems existed in the fields of material production and, namely, development of industry, together with other purposes is also explained by the fact that the science is not in service of development of country economy. Special tasks shall be allotted for the purpose of improving poor conditions, in order to have science and scientific service in increasing development of public industry.

The government shall pay more attention to the issue of financing science. To finance science they shall create various sources as by attraction of state sources, so other ones. The main thing that the process of forming sources needed for development of science shall be supervised by the government of the country, otherwise, minimal level of resources needed for existence of the field, put the issue of existence of the field under question. Viable task is to maintain secured and brought cores of scientific potential, which may not be provided based on the sources existed today. Creation and formation of new scientific potential is extremely expensive process and economy of Georgia is simply impossible.

What do they do to develop science in Georgia? Competition of state scientific grants. On July 17, 2005 President of Georgia signed the Decree considering creation of national scientific fund of Georgia, and on March 16, 2006 Government of Georgia verified Charter of National Scientific Fund. One of the tasks of the Fund is: a) in order to strengthen scientific potential to support realization of fundamental and applied scientific-technical studies by means of scientific grants” (Article 2).

Resolution (as of April 19, 2006) of the Government of Georgia “considering issuance of state scientific grants” “regulates holding competitions of projects to receive state scientific grants, and the method of controlling grant issuance and implementation of grant projects” (Article 1).

Competition of State Scientific Grants (CSSG) is one of basic mechanisms to provide scientific reform. Objective of CSSG is to detect and finance scientific projects by means of announce competition and assessment of independent experts.

Administration of state scientific grants, processing of competition conditions, announce competition, conducting consultation seminar for the purpose of introducing competition conditions, settlement of organizational issues related with assessment of projects, elucidation of projects to be financed and their submission to the scientific board of National Scientific Fund for verification are provided by National Scientific Fund of Georgia.

Program and financial requirements. Minimal duration of realization of the projects is 6 months, and maximum – 36. Duration of project realization shall be divisible to 6, 9, 12, 15, 18 and so on up to 36 months. Grant volume for 6-month

projects shall not exceed 25000 GEL, for 9-months projects – 37500 GEL, for 12-month projects – 50000 GEL and so on. In any case annual budget shall not exceed 50000 GEL.

Stages and conditions of grant competition:

1. Basic stages:

- a) Preparation of project and its submission to the National Scientific Fund;
- b) Project assessment by independent experts of the National Fund;
- c) Submission of projects selected on the basis of assessment of independent experts to the Scientific Board;
- d) Verification of projects submitted for financing by Scientific Board of the Fund;
- e) Conclusion of grant agreements with the managers of projects selected for financing.

In order to gain grant, groups of sciences formed as non-commercial (non-profitable) legal entities of public Law and Private Law registered in Georgia may participate, As well as citizen of Georgia as resident, so – non-resident individuals, citizens of foreign countries – only resident individuals. Scientific manager and project manager shall necessarily be individual resident citizen of Georgia.

The Project shall have scientific supervisor and a manager. Basic contractors (including manager and scientific supervisor) of the Project may not participate in more than two competition projects. Bachelors may not be basic contractors of the Project.

Taking into account ethic norms recognized in international practice, disclosure of identity of experts is prohibited to every party participating in the process.

Following scientific directs were offered for competition in 2007:

1. Kartvelological sciences;
2. Humanitarian, economical and social sciences;
3. Mathematics, mechanics, telecommunications, information technologies;
4. Natural sciences;
5. Earth and environmental sciences;
6. Life and medical sciences;
7. Engineering sciences;
8. Agrarian sciences.

The competition was announced on May 14. Deadline for submission of projects to the Fund was June 22. Expertise of projects began in July and lasted till November and up to 750 foreign experts from leading scientific centers participated in evaluation together with local experts.

Number of projects registered for the second competition of state scientific grants (1085) compared to the first competition was increased with 100. Statistical data of competition of 2006 are given in the Table 3. "Objective of National Scientific Fund is creation of such competitive environment, which provides introduction of

more competitive projects. Outcomes of grant competition of this year shows up that we are going to correct direction” – said Matia Jokhadze Acting Director of National Scientific Fund of Georgia at the Briefing.

Financing of projects began from January 1, 2008.

International scientific projects. For participation of Georgia in European scientific programs the Government is obliged to fulfill two basic conditions: there shall be Georgian co-financier and European partners, who would work at scientific projects together with Georgian colleagues. Implementation of said conditions is necessary for participation in the most important projects of Europe, so-called framework programs. Activation of framework programs commenced from 1984 and 6 framework programs are provided for today. Integration of each new program is characterized with its specification, though integration and effective utilization of European scientific potential remains to be basic objective for rising European development and its competitiveness.

Table 3

<i>Scientific directions</i>	<i>Number of submitted projects</i>	<i>Percentage distribution %</i>	<i>Required sum (GEL)</i>	<i>Percentage distribution %</i>
<i>Kartvelological sciences</i>	<i>86</i>	<i>8.7</i>	<i>7.042.24</i>	<i>7.97</i>
<i>Humanitarian, economical and social sciences</i>	<i>133</i>	<i>13.5</i>	<i>10.779.46</i>	<i>12.2</i>
<i>Mathematics, mechanics, telecommunication, information technologies</i>	<i>96</i>	<i>9.7</i>	<i>6.702.84</i>	<i>7.59</i>
<i>Natural sciences</i>	<i>124</i>	<i>12.6</i>	<i>11.857.84</i>	<i>13.42</i>

NUMBER OF SUBMITTED PROJECTS AND SUM REQUESTED ON THEM¹³

Georgia has specific experience of participation in Georgian framework programs. 17 projects were implemented by participation of Georgian scientists in the 5-th framework program, while 2 projects out of 40 (submitted at the initial stage) are implemented.

Same or lower index of participation is characteristic to every CIS state (Russia and the Ukraine are exceptions), which, according to the experts' opinion, is provided not by non-fulfillment of two conditions said above, namely, insufficient competent European partners and existence of co-financing by Georgia, but – completeness of rules and procedures necessary for participation. That is why for development of studies and technologies of EU for 7th framework program (FP7) it is recommended to simplify said rules and procedures. It should be noted that FP7 differs from previous 6th framework program with numbers of important characteristics.

What has been done in Georgia within the bounds of the 6th framework-program?

¹³ Material taken from the Magazine “Saqartvelos Ekonomika”, 2007. No. 11; pg. 19-22.

On November 22, 2001 final edition of the 6th framework program (FP6) of prepared studies and technological development of European Union was published. Compared with previous programs FP6 was significantly increased, ability of participation of the so-called third countries, including, Republics of the Soviet Union. For the purpose of their support, European Union provided specific activities, namely, they concluded agreement with The International Association for the Promotion of Cooperation with Scientists from the Independent States of the Former Soviet Union (INTAS), to which 70 million EUR were allocated during 2002-2006.

Pursuant to the decision of the year 2003 of General Assembly of INTAS, information network has been created, within the bounds of which from the end of 2003 formation of National Information Bureaus of FP6 took place in the republic of former Soviet Union, including Georgia. National information Bureau of FP6 in Georgia is operating on the basis of National Scientific Fund of Georgia.

INTAS. The International Association for the Promotion of Cooperation with Scientists from New Independent States (NIS) of the Former Soviet Union (INTAS) was established in 1993 by Belgium, Denmark, France, Germany, Greece, Ireland, Luxemburg, Holland, Portugal, Spain, Great Britain and European Union. Said states were given the status of INTAS member states, while NIS countries, including Georgia, were called INTAS Partner States.

In 1993-2004 INTAS issued almost 4500 grants in CIS countries. 93% of financing was provided by European Union, and 7% - by member and partner states, as well as European companies (see Table 4).

On October 27, 2004 the Minister of Education and Science of Georgia and Executive Secretary of INTAS signed official Agreement "considering Scientific Cooperation". Agreement of 2004 is amendment of Agreement considering Mutual-Profitable International Scientific Cooperation (as of June 20, 1995) concluded between the Parties (Georgia and INTAS).

Role of government: To promote activities of INTAS in Georgia the Government guarantees that every individual and legal entity receiving grants of INTAS, Will be released:

- Social security contribution from the sum of grant received from INTAS, deductions or any other similar taxes;
- Taxation of personal or business related incomes made from the sum of INTAS grants, or any other similar payments, accepted in Georgia.

The Government guarantees that every individual and legal entity, having received INTAS grant to purchase scientific and technical equipments of materials, will be imported to Georgia from INTAS to implement the said activities, released from import Value Added Tax, customs fees, excise and other similar effective payments.

¹⁴ Material taken from the Magazine "Saqartvelos Ekonomika", 2007. No. 7; pg. 31-33.

<i>KIND OF PROGRAM</i>	<i>TOTAL QUANTITY OF PROJECTS</i>	<i>NUMBER OF FINANCING (EUR)</i>
<i>Research and network projects</i>	<i>2792</i>	<i>195 308 000</i>
<i>Scholarships for young scientists</i>	<i>1011</i>	<i>8 740 000</i>
<i>Conference grants</i>	<i>257</i>	<i>232 000</i>
<i>Summer schools</i>	<i>54</i>	<i>680 000</i>
<i>Conferences of monitoring group</i>	<i>265</i>	<i>2 289 000</i>
<i>Infrastructure development</i>	<i>33</i>	<i>3 853 000</i>
<i>Innovation grants</i>	<i>26</i>	<i>630 000</i>
<i>Total</i>	<i>4438</i>	<i>211 732 000</i>

The Government guarantees that respective imported cargo will be always issued at immediate basis from the enter point, notwithstanding settlement related with the above payments. Final recipient of imported cargo will not pay the cost of storing cargo at the warehouse; no imported cargo will be blocked in the income point.

The Government also guarantees that every individual and legal entity, importing above equipments and materials, may use the rule of transferring for temporary use, if it requires so. Said equipment is released from all kinds of Value Added Tax upon import and re-exports.

Agreement of any kind financed by INTAS grant will not be the subject to document verification, registration and other similar processes, which are in force in Georgia.

Agreement signed in 2004 remains in force till December 31, 2006 and after this it is automatically extended for the term of one year, if one of the Parties doesn't notify another party about termination of the Agreement.

During 14 years of cooperation INTAS financed about 250 scientific projects by participation of Georgian researchers, more than 4 million Euros were allocated. On different times so-called conference and scholarship grants were issued to 35 young Georgian scientists; 3 projects directed towards innovation activities were financed.

At "South Caucasus - 2006" held in 2006 17 projects were financed out of 140 selected for competitions, in 12 of which participated Georgian scientists. For competition the Ministry of Education and Science of Georgia and National Scientific Fund allocated respective 100 thousand and 50 thousand Euros. INTAS allocated more than 300 thousand Euros (for participants of Georgian scientists).

On the basis of agreement with INTAS, Azerbaijan, Georgia and Armenia offered 6 prior directions:

- 1) Environmental problems;
- 2) Issues of social health;
- 3) Improved utilization of natural resources;
- 4) Modern problems of mathematics and astrophysics;
- 5) Ecological development;
- 6) Policy of science, technologies and innovative development.

7th framework program (FP-7) of European Union and development of technologies. FP-7 is direct successor of FP-6. On April 6, 2005 European Parliament and Council of Europe obtained Resolution of FP-7. One of the basic objectives of the Program is so-called “knowledge triangle” (study, education, innovations) strengthening role of studies. The Program will last for 7 Years (2007-2013). Financing is increased – 73215 million Euros. FP-7 will be realized in the form of 4 programs, cooperation, ideas, human potential and scientific-research possibilities.

Cooperation. More than a half of total budget allocated for FP7 by European Union is intended for promotion of cooperation between universities, industrial institutions, research centers and social companies. Cooperation will be provided at the transnational level in the form of joint researches and scientific-research programs in the form of coordination networks and including wide spectra of scientific directions. International cooperation of European Union with the third states is integral part to this program. Program Cooperation is separated in subprograms:

Joint studies – European priorities.

Basic part of budget allocated for FP7 will be allocated for the programs: joint-studies – “European priorities”, objective of which is supporting transnational cooperation between scientific-research centers, and laboratories of universities and commercial companies. The Program includes 9 vertical prior thematic directions:

1. Health care;
2. Food, agriculture and biotechnologies;
3. information and communication technologies;
4. Nanosciences, nanotechnologies, new materials and industrial processes;
5. Power economy;
6. Environmental protection and climatic changes;
7. Transport (including aeronautics);
8. Social, economical and humanitarian sciences;
9. Security and cosmos.

Other subprograms of the program “Cooperation” are: joint technological initiatives and technological platforms, coordination of national scientific-research programs and international employment basic peculiarities of which are:

- For science and scientific organizations of the third countries possibility of participation in every direction of activities;
- Special activity of international cooperation in thematic fields, which are important for the third states and interesting for cooperation, including improvement of scientific potential of the candidate and neighboring countries; joint activities, directed towards
- development of these countries and realization of perspectives, also solving such important tasks, as health care, agriculture and environmental protection.

Ideas. Stimulation of “Leading Studies” between individual study groups is open by means of competition. It is expected to create European study board for selection and promotion of “Leading Studies”. Such studies shall be realized by individual groups, which are competitive in the respective fields of science and technologies.

Activity directed towards training, promotion of mobility and career growth of scientists within the bounds of Mari Curie program, will be focused on receiving professional experience, career development and key aspects of improvement of relation with natural systems.

Table 5.

DISTRIBUTION OF 15 YEARS OLD OR ELDER POPULATION BY THEIR
ECONOMICAL STATUS, BY QUARTERS OF 2006

	THOUSAND PERSONS		
	I	II	III
Total active population (labor force)	1925.1	1952.3	1960.5
Worker	1643.1	1699.9	1691.5
Employer	586.2	566.9	574.8
Self-employed	1055.5	1130.4	1116.2
Uncertain	1.4	2.7	0.5
Unemployed	282	252.4	269
Population outside labor force	1244.6	1186.4	1152.5
Level of unemployment (in percentage)	14.6	12.9	13.7
Level of activity (in percentage)	60.7	62.2	63
Level of employment (in percentage)	51.8	54.2	54.3

Possibilities.

- In the key fields of study, stimulation of scientific-research and innovative potential is provided by means of coordination and promotion of scientific-research infrastructure;
- Promotion of studies intended for development of enterprises of small and middle environments;
- Strengthening scientific-research potential of widened European domain;
- Building knowledge-based, effective and democratic society in Europe;
- Provision of “horizontal” direction of activities in the field of international cooperation.

SYSTEM OF HIGHER EDUCATION IN GEORGIA AND INVESTMENTS¹⁵.
Pursuant to the official data, 14% of efficient population of Georgia is unemployed

¹⁵ Material taken from the Magazine “Saqartvelos Ekonomika”, 2007. No. 5; pg. 8-12.

(Table 5.). Though, this official, not official number of unemployed is much more. Poor statistics of unemployment in Georgia became harder in June.

Pursuant to the data of the Ministry of Education and Science, in 2007 school was finished by about 62000 adults, and only 15444 of them will become the students of higher institution. What about 47000 graduates? Are there any alternative ways of their employment? Or will they join the army of unemployed? This is added with the number of graduates of higher institutions, about 35000 people, great number of which are to be employed and according to logic calculation, number of unemployed in Georgia will be increased for several ten thousand in one month.

Rising qualified staff and employment of young people is problem not only of our country, but also in Europe as well. Following scaled of illegal labor and employment of efficient-invalid people, the problem of employment of young people is extremely important. Unemployment among young people in EU states overcomes general level of unemployment for two and more times amounting 18%. Settlement of this problem in Europe is one of the prior issues, for which radical measures are to be provided. Under the conditions of ongoing rapid technical progress and global competition, the experts consider balancing flexibility of labor market and employment perspectives to be of great importance.

What are the problems in education and employment? When speaking about education and employment of young people, according to global trends, several dilemmas appear:

Notwithstanding the fact that more and more young people finish elementary school and in this field they provide large investments, illiteracy still remains to be one of the most important problems.

Why is large part of graduates of higher institutions unemployed for months and years, when business claims for lack of qualified workers?

These issues specially appear in the states with low development, Georgia is not exception. There are several strategic steps to reforms:

- Improvement of quality of education. Extending possibilities to the people. Supporting employment.
- Involvement of young people into any process. They shall understand that upon making decisions their opinion and position is adequately accepted and foreseen.

Adults need respective knowledge and skills to become qualified worker, good parent or even responsible citizen. Education and education is necessary everywhere – at home, at school, at work, though schools are of greater importance, as well as skills and abilities received there. Notwithstanding the fact that in the developed countries following reforms situation at primary schools became better, this is not enough. There still is the need of more qualified skills and knowledge.

It is necessary to prepare a child for following stage, which foresees processing of respective skills for learning at the second and higher stage. Practical subjects, thinking, behavior, forbearance shall be taught. Qualified teachers are necessary. Global economical, social-cultural and technological changes put many country of the world under necessity of realization of basic educational reforms, objective of which is to give modern qualified education to the students. Important

part of reforms is professional training of pupils. Active involving of pupils into the educational process is important. The government shall support involving and development of various educational programs and training.

To solve problems of unemployment and employment education quality shall be improved and to grow qualified staff corresponding to the labor market requirements. What is done for this? What direction reforms are provided in the system of higher education?

Bologna process. Activity of EU Union in the field of education is directed towards creation of general-European educational domain. At first this issue was set by the Ministers of Education of France, Great Britain, Germany and Italy at Sorbonne University jubilee in 1998 and called for educational domains of European states to unify. The Document is known as "Sorbonne Declaration". In 1999 in Bologna part of European states joined "Bologna Declaration". Provisions of the Declaration was distributed and improved by the Ministers of Education of the Countries participating in Bologna process in 2001 in Prague, and in 2003 – in Berlin Communiqué. Georgia was recognized as a member of Bologna process by the Ministers of Education of 40 countries and international organizations in May 19-20, 2005 at the Summit held at Bergen (Norway) - Reform of the System of Education of Georgia was assessed to be within the bounds of Bologna Process 2007. Assessment was provided with 5-score system according to 11 indicators, Georgia took higher grading in following directions: three-staged system of academic quality (bachelor, master, and doctor) and development of European credit system; provision of the quality of higher education. It is remarkable that Georgia has received no negative grade in any criteria.

What Bologna Process means. Each man desires to have diverse employment possibilities at local and international labor market. For this purpose qualified higher education is needed, as well as mobility, recognition of qualification and competitiveness. Purpose of Bologna process is to create unified European Domain of higher education by the year 2010. 46 states participate in the Process, as well as the European Commission, Council of

Table 6

Distribution of people of 15 years old and elder people by economical status, pursuant to the quarters of the year 2005

NAME OF INSTITUTION	TUITION FEES (ONE THOUSAND GEL PER YEAR)
Caucasus University	12900 – Unified Georgia-American Bachelor's Program of Business Management
	5000 – Other faculties
Georgian-British University of International Law and Management	6400
ESM – Tbilisi	6000

Branch of American University for Humanities	3950
University of Social Sciences of Georgia	3800
Georgian-American University	3750
Black Sea International University	2784

Europe and organizations – European Association of Quality Provision, National Unions of Students in the Europe, Association of Professional Higher Institutions, Association of Universities of Europe and UNESCO-CEPES. Parallel processes – once in two years ministers’ summits, Bologna Secretariat, committee and board are held. There are 4 working groups within the bounds of social and external dimension, outcome evaluation and European qualifications. All these ranges supervise and control implementation of 10 main tasks of Bologna Process.

Main tasks of Bologna Process are:

- Easy to understand and comparative qualifications;
- Three-staged system (BA, MA, PhD);
- Credit System (ECTS);
- Mobility;
- Quality provision and accreditation;
- Attractiveness of European education;
- Institutions and students of higher education;
- Life-long learning;
- European dimension in higher education;
- Merging education and classification.

Levels of Bologna Process are: international level, national level - supporting group of Bologna Process; Institution level – quality provision office.

Terms and trends established by Bologna Process: human, social, cultural and moral capital, society established on knowledge; decentralization, massification, internationalization, professionalization, individualization, self-employment ability and sustainable development.

Meaning of knowledge in modern society and eight key competences: 1) ability of communication in native language; 2) ability of communication in foreign language; 3) basic knowledge in mathematics, science and technologies; 4) digital competence; 5) learning for learning; 6) civil and interpersonal competences; 7) industrial competence; 8) cultural self-expression.

Bologna Process credit system: European Credit Transfer System - ECTS – was established in 1989 within the framework of the program of European Union “Erasmus”, which considers loading of students with 60 credits a year, 30 credits per semester. 1 credit equals to 25-30 hours, which amounts to 40 hours per week – 1.5 credits.

Important element of Bologna Process is addendum to the diploma, which is issued together with the diploma cost free and in international language. It describes content, level, context and status of qualification:

- Addendum to the Diploma is easy to understand and compared abroad;
- It consists of complete information about academic program and competence obtained during study;
- Objective information considering competence and performance of the student;
- Simplifies possibilities of continuing study and working abroad;
- Increases possibilities of employment of students – on the basis of information given in the addendum to the diploma the employer is more interested in the student's profile.

At Berlin Summit of Bologna Process (in 2003) the Ministers defined responsibilities of participating institutions and organizations; they agreed internal and external assessment of programs and institutions, as well as participation of students and publication of outcomes, involving accreditations, licenses and similar procedures, international participation and cooperation.

National framework of qualification and its description by 5 characteristics:

1. loading - credits;
2. Level – bachelor, master, doctor;
3. Outcome of knowledge – knowledge, skills and competences after completion of educational stages;
4. Competence – cognitive, functional, personal, ethic – competence shall conform to the qualification. Classification is granted to the graduates in accordance with the competence;
5. Profile – humanitarian, technical and others.

“London Communiqué”.–Following conference of Bologna Process was held in London on May 17-18. It was attended by delegation from Georgia. Ministers of Education of 46 states signed “London Communiqué” at the Conference, stipulating action priorities of 2007-2009:

- Promotion of development of three-staged education system (master, bachelor, doctor);
- Mobility of students and academic staff among participating states is one of the priorities of Bologna Process. Overcoming obstacles preventing mobility, development of grant and loan systems, simplification of obtaining visa and the right of working abroad;
- Equal accessibility of higher education for everyone;
- Creation of respective conditions for the students in order to prevent occurrence of problems related with completion of learning due to economical and social problems;

- Foreseeing requirements of labor market, which conditions involving of potential employer into conclusion of educational program, defining content to be enrolled to this or that profession.

Second stage of educational reform. Since 2008, pursuant to the requirements of Bologna Process, reform of higher education moves to the second stage in Georgia. After organization reforms the stage of quality improvement and approaching to the western universities takes place. The service of licensing higher institutions and national agency of professional accreditation are established, with the competences of approaching quality of education of national system with European standards. Let us overview existed situation – what the system of higher education of Georgia offers to the students?

Tbilisi Iv. Javakhishvili State University – first stage of Reform – competitions, obtaining professors and structural reorganization are provided; minor and major educational methods were involved. Stages of program accreditation are commenced; programs are reviewed at the faculties first and later they are sent abroad, for example, reviewed programs at the economical faculty are sent to George Washington University and pass examination there pursuant to the memorandum of mutual cooperation. As for master program, they plan to invite American experts in processing curriculum. Such steps shall support approaching of programs of higher institutions of Georgia to those of western countries.

As for prestigious higher institutions, for example, Black Sea International University, Caucasus University, ESM – Tbilisi, Georgian-American University. Well equipped material-technical base, programs, which are maximally approached to western standards of education, close relation with various western universities make them different from higher institutions. This makes possibility of the student to continue learning abroad more evident and, finally, the most important thing is that it increases high potential index of employment of graduates.

Though, one thing is attractiveness and another – possibility. Not many people have opportunity to pay 12000 or even 5000 GEL a year in Georgia. Besides this, value may be increased on educational vouchers at state higher institutions, which may be inevitable; otherwise they will not be able to make respective competition with the private higher institutions. Education becomes expensive in Georgia, parallel to this we have a dynamics, pursuant to which quantity of contingent to be enrolled to the higher institutions is being reduced from year to year – at unified national examinations at the first year about 28000 entrants became students, last year their number was – 17000, this year this figure was reduced to 15000. It comes out that higher education becomes less accessible in our country, while the number of potential students, on the contrary, is increased. If this year in final class there were up to 62000 pupils, in the 10th form their number is about 66000.

Is there the way out or not? When unemployment is one of the most acute problems in the country, and parallel to this entrepreneurs claim for qualified staff, involving-development of the system of professional education shall become precondition to these two problems. There already exists legal base – the Law “considering professional education” signed by the President on March 28, 2007.

Under the conditions of Soviet overbearing-administrative economy, when working places were defined not by the demand of the market, but plan committee, professional-technical institutions made specific educational deadlock, graduates of

which were the pupils of low academic performance at secondary school, lacking possibilities of further professional development and progress.

Way out – professional education. At the beginning of transitive period of moving to the market economy the government didn't consider it to be prioritized – non renovation of the structure of preparation professions and content of teaching or its statutory base impacted process and quality of education, which was followed by falling of prestige of professional institutions.

Today the system of professional education in Georgia begins new stage of development. The Law “considering professional education” responds to the objectives set by social-economical conditions existed in the Country. Professional education shall play important role in the process of development of economical system based on the principles of independent market and employment of population: “objective of this Law is definition of function and place of professional education, creation of the system of professional education, satisfying requirements of rapidly and permanently increasing labor market” – says introduction to the Law (Chapter I, Article I).

Professional education of new type shall be created, with new infrastructure, high quality of education, educational and industrial partnership, which conditions active involving of educational institutions, employers, organizations and other interested groups into the process of planning and managing professional education. Orientation towards requirements of labor market is important, as well as foreseeing modern trends of economical development, supporting conformity of people with new social-economical conditions by means of starting own business or self-employment – all these conditions are included in the purposes of professional education.

International nature of economical development, rapid rate of globalization requires conformity of the process and content of conformity of reformation and amendment, including professional preparing of professional preparation with international norms, and in the first place with European requirements. Existence of workers of respective qualification is one of preconditions of attracting investments. Pursuant to the data of the Department of Statistics of Economical Development of Georgia, in 2006 direct foreign investments were increased from 450 million USD up to 1.140 USD in compliance with the year 2005, and this, of course, conditions creation of vacancies and growth of requirement of qualified workers.

For the purpose of complete realization of the right of receiving professional education, the center of professional education provide professional orientation, purpose of which is providing consulting with the persons interested in professional education, including entrants, professional and other students considering conditions of possibilities of receiving professional education, future professional activities and terms of employment. For the purpose of realization of professional orientation, centers of professional education cooperated with the employers.

Kinds of professional education are handwork education and professional higher education, which may be formal or informal. Receiving formal professional education is provided at accredited educational institution providing professional teaching by granting respective qualification and issuance of the document certifying education. Receiving informal education is not provided by means of accredited educational program and it is not deemed to be the document certifying education recognized by the Government.

Receiving state education may be provided after overcoming basic stage of general education. As for professional higher education, it may be received on the basis of complete general education. In academic year 2007-2008, number of secondary professional education in state and private sector in Georgia amounted 101¹⁶. Agencies of managing the system of professional education – Government of Georgia, Ministry of Education and Science, the Ministry of Labor, Health and Social Affairs, respective Ministries of education of Autonomic Republics of Abkhazia and Ajara, local bodies of self government, National Professional Agency, National Center of Education Accreditation, Center of National Educational Plans and Evaluation, Center of Teachers’ Professional Development – provide activities in the field of professional education on the basis of educational-industrial principles.

Table 7.

<i>Academic year</i>	<i>Number of Secondary Professional Institutions</i>	<i>Number of pupils</i>
<i>2002/2003</i>	<i>148</i>	<i>28173</i>
<i>2003/2004</i>	<i>150</i>	<i>25769</i>
<i>2004/2005</i>	<i>153</i>	<i>26902</i>
<i>2005/2006</i>	<i>153</i>	<i>28395</i>

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¹⁶ Source: Department of statistics.

ECONOMIC ISSUE AND PROSPECTS OF GEORGIA AND THE SOUTHERN CAUCASUS AS LINK BETWEEN ASIA AND EUROPE.

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1. Introduction

The Southern Caucasus, the region comprising Georgia, Azerbaijan and Armenia, is a clearly identifiable economic space, endowed with a complex territorial productive and economic system. Each of its elements deserves to be studied individually, so as to ascertain the significance of each of them, as well as their place in the system. Provided that the analysis is conducted with the proper combination of systematic and situational approaches, getting into the specific nature of each aspect of the problem, this economic space will be successfully understood. In this way we will progress towards the development of a framework for the adequate identification of the principles and mechanisms of formation of the entire system, as well as of the environment conducive to its effective operation.

Throughout the centuries the Southern Caucasus region has been an important link between Asia and Europe. In the current environment described by generalized market liberalization, globalization and the rise of East Asia, we believe that the region has clear potential to continue to be a significant of the world economic system, not only as a transit route but also as an essential territorial segment of the world market. A complementary hypothesis is that an integration of national efforts and policies can only enhance this potential. Notwithstanding the positive perspective, the countries of the region face the stark reality of serious structural distortions created in the wake of their abrupt separation from the former Soviet Union and the ensuing disorderly conversation into market economies. Although economic growth has resumed and average income levels have been mostly restored, the social consequences of this upheaval have been lasting. Given this background, the objective of this paper is to provide a contribution towards the analysis of these hypotheses from a perspective that combines national, regional and international issue. More specifically our analysis will be developed taking account of the specific issues facing each of the countries in the region as well as to the relations between them and with other relevant international players. In doing so we will identify some of the main challenges and opportunities that loom ahead.

The paper has two sections in addition to this introduction. Section 3 describes the methodology adopted for the analysis, which contemplates increasingly wide spheres of analysis going from the natural sphere to the international sphere.

2. Main spheres of analysis.

Deepening the economic integration process of the region and strengthening the territorial and economic links, thus enabling a qualitative rise in the development of its production forces, is certainly one of the prime objectives of economic policy. Nevertheless, the regional dimension cannot be considered in isolation of the pressing domestic economic issues weighing on the countries of the region nor the issue related to an adequate insertion of the region in the wider economic system. In this paper we will examine the main policy issues faced by the region adopting increasingly wider spheres of analysis: the national sphere of the national economies composing the region; the regional sphere of the entire Southern Caucasus; and the international sphere where the region is inserted. In the latter the European Union plays a fundamental role, although there are other important players such as China, Turkey and Russia.

The first sphere of policy analysis relates to the functioning of the domestic markets of the countries of the region (Georgia, Azerbaijan, Armenia). This relies on the conception of formation of the market economy in the country, including those sectors related to money and credit, tax, customs, and industrial and agrarian policies among others. In the aftermath of the dissolution of the Soviet Union and the independence of the Southern Caucasus countries, a transition from a socialist economy to a market economy took place. The specific market forces and relations of each country have shaped their respective economic systems in particular ways. An understanding of this situation is important in order to appreciate the context under which development of integration processes at a higher level are to take place as well as the limitations that such processes will face.

The second sphere of analysis considers the integration processes that will eventually lead to the creation of the economic area of the Southern Caucasus. The rationalization of the existing territorial and production link and the concerted coordination of the respective territorial units (countries) in regard to the development of their production forces are of paramount importance. In pursuing economic integration efforts it is important not to lose sight of the need to take into consideration existing economic links and traditions.

Finally, the third sphere of analysis relates to the modalities of insertion of the region into the world economic system. It is a historical aspiration of the countries of the region to reclaim their place in Europe and to join the European Union in due time. Nevertheless, the realities of globalization require, at least in the medium-term, a broader approach that also gives attention to other important member of the international community, such as China and Russian, in addition to those in the immediate neighborhood of the region.

Although, we do not pretend to offer a thorough literature review it will be useful to mention at this point some other authors who look at the issue of regional cooperation in the Southern Caucasus through a variety of perspectives. F. Muller (2001) and V. Papava (2011) emphasize the potential for energy cooperation, from a European perspective in the case of the first and from a Georgian perspective for a second author. Both authors stress the advantages that economic and energy cooperation offer to the region, the first author highlighting the benefits for Europe. While Miller tends to ignore the potential difficulties facing this enterprise Papava, writing in the aftermath of the Russo-Georgian war of 2008, discusses at length the geopolitical context and limitations of this ambitious project. Tsereteli (2009) also takes up the important subjects of the consequences of this war for the Southern Caucasus transport corridor. Without belittling the impact of the conflict the author is generally optimistic about the future prospects of this corridor, arguing that those will depend not only on Russian attitudes but also on those of other interested parties such as the USA, Europe and Turkey. Security concerns are also paramount in the paper by Aptsiauri (2001). The author, deputy Foreign Minister of Georgia at the time, states forcefully the commitment of his Government to the goals of regional economic integration. At the same time he mentions the challenges posed by this task, relating both to internal problems such as corruption. A bloated bureaucracy and a narrow fiscal base, and to external problems such as the lack of proper security arrangements.

3. Economic situation at the national level.

Official data for all Southern Caucasus countries imply that social conditions are at a similar level. On the other hand, analysis from other independent source gives indications of some differences. Thus, although the average wages and salaries in Southern Caucasus countries are not markedly different, social strain is more acute in Georgia if compared with Armenia and Azerbaijan. This is revealed in the figures presented in Table 1 below.

Table 1 Social indicators for Southern Caucasus countries: 2008 (Percentages)

	Armenia	Azerbaijan	Georgia
Gini coefficient	33.8 ¹	16.8 ²	40.8 ¹
Population below poverty line	26.5	11.0	31.0
Unemployment	28.6	6.1	16.5

Notes: 2006¹ ; 2009²

Sources: CIA Factbook (for poverty) and World Bank Databank (others)

The table also shows quite low unemployment and poverty figures for Azerbaijan when compared to those of other Southern Caucasus countries, a fact that is undeniably related to the economic boom created by the recent development of the oil industry in that country.

It is to be noted that, although Georgia appears to lag behind Armenia and Azerbaijan in relation to these social indicators, those countries are far behind Georgia with respect to enrollment in tertiary education as well as some access indicators to information technologies such as the proportion of broadband subscribers in the general population (ITU 2010).

Growth performance of South Caucasus countries, as the Table 2 below clearly illustrates, has not smooth. The 1990s, the first decade after splitting from the Soviet Union, was dismal for all three countries. In recent years all countries have been doing well, although Georgia has lost its position and now lags behind Azerbaijan and Armenia. The stellar performance of Azerbaijan is of course well explained in terms of its oil and gas wealth.

Table 2 Evolution of per capita income (PPP) of countries in the region (Constant 2005 USD and percentages)

	Armenia		Azerbaijan		Georgia	
	Value	Growth rate	Value	Growth rate	Value	Growth rate
1990	2936.04		4753.93		5682.57	
1991	2616.62	-10.9	4647.93	-2.2	4517.92	-20.5
1992	1550.29	-40.8	3543.41	-23.8	2523.10	-44.2
1993	1447.24	-6.6	2683.80	-24.3	1815.17	-28.1
1994	1562.40	8.0	2126.15	-20.8	1656.76	-8.7
1995	1705.12	9.1	1853.79	-12.8	1729.52	4.4
1996	1834.16	7.6	1859.03	0.3	1952.92	12.9
1997	1917.68	4.6	1948.03	4.8	2188.24	12.0
1998	2074.73	8.2	2122.52	9.0	2284.63	4.4
1999	2156.06	3.9	2259.60	6.5	2378.86	4.1
2000	2294.13	6.4	2489.97	10.2	2452.71	3.1
2001	2522.88	10.0	2715.36	9.1	2602.87	6.1
2002	2860.07	13.4	2980.86	9.8	2779.18	6.8
2003	3261.14	14.0	3593.67	10.4	3135.33	12.8
2004	3601.35	10.4	3593.67	9.2	3327.09	6.1
2005	4097.82	13.8	4496.14	25.1	3610.48	8.5
2006	4633.36	13.1	5981.24	33.0	3916.40	8.5
2007	5261.32	13.6	7395.16	23.6	4409.46	12.6
2008	5610.62	6.6	8100.57	9.5	4516.29	2.4
2009	4793.55	-14.6	8752.08	8.0	4335.19	-4.0

Turning our attention to international trade, a look at the pattern of exports in Southern Caucasus countries reveals that for all three countries the key export items are primary goods or goods with processing (Table 3). It is to be noted, that for all three countries agricultural goods are of little significance. Export of food products are also minor for Azerbaijan and Georgia, although they are significant in the case of Armenia. Azerbaijan is increasingly relying on its export of fuels and oil products and these have reduced all other exports to a minimal expression. In contrast to the extreme case of Azerbaijan we can observe that Georgia and, to an even larger extent, Armenia, have a more diversified structure of export. However, neither of the region's countries export

any goods of complex manufacture, illustrating well the low level of application of high technology in production. Armenia is an exception to some extent as its exports are more sophisticated and diversified.

This brief presentation of the economic situation of the Southern Caucasus countries reveals how far behind they are in comparison to other European countries. Although an in depth analysis is behind the scope of the present paper, the preceding discussion is suggestive of the need for significant structural adjustment aimed at increasing the competitiveness of the region's countries and at reducing their manifest social imbalances. Correction of the latter is important not only as a matter of social justice but because the current state of affairs may threaten the political stability of the countries and of the region. It is also emphasizing that those adjustments will play an important role enabling the implementation of the integration schemes that will be discussed in the following sections.

State Oil Company of the Azerbaijan Republic is one of the largest oil companies in the world. Currently, in terms of capital SOCAR is the 68th largest company in the world.

SOCAR is involved in prospecting, exploration and development of oil and gas fields throughout the country, including on land and sea areas. SOCAR is preparing, processing and transportation of oil, gas, gas condensate, and received from the sale of these products in domestic and overseas markets.

SOCAR also carries a large volume of research and design work. Today in Azerbaijan there are 57 fields rich in oil, 18 of which are located in the Azerbaijan sector of the Caspian Sea, and the rest on land.

In general, the Caspian basin has approximately 30 billion tons of oil reserves and 18-20 trillion cubic meters of gas reserves, which are 15% of the world's hydrocarbon resources. In the Azerbaijan sector of the Caspian basin there 3-5 billion tons of oil and 5 trillion cubic feet of gas reserves

Currently, the State Oil Company of the Azerbaijan Republic (SOCAR) is extracted from marine deposits 7.5 million tons of oil and 5 billion m³ of gas per year. In September 1994, for development opened in the 80-ies of the Azeri, Chirag and deepwater Guneshli was signed by a major (of recoverable reserves and the volume of investment) "contract of the century" type "Production-Sharing

Agreement" or "PSA" (Sharing Agreement products) with the participation of 12 well-known oil companies from 8 countries.

With the signing of the first major contract type "PSA" on the Azeri-Chirag-Gunashli (deepwater) in the Azerbaijani sector of the Caspian Sea in Azerbaijan's oil industry has entered a new stage of its development.

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ФУНКЦИОНИРОВАНИЕ МАЛОГО И СРЕДНЕГО БИЗНЕСА: ОПЫТ ДЛЯ СТРАН КАВКАЗА

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1. Introduction

Для развивающихся стран, ставших перед собою задачу достижения экономического благополучия, стало очевидным, что пройти успешно все этапы эволюции в рамках образцовой западной модели, но крайнѐй мере, нереально в течение исторически короткого времени с учетом своих национальных особенностей, нехватки капиталов и быстро меняющихся экономических реальностей в мире.

Если западная экономическая модель развивалась относительно долго, сама диктуя условия производственных параметров, оказав решающее воздействие на мировой рынок, то ведущие азиатские страны, сегодня все ближе и ближе ставшие в один ряд с высокоразвитыми странами Запада, должны были приспособиться к уже существующим реалиям и двигаться по схеме ускоренного догона.

Требовалось разработать и внедрить принципиально новую модель форсированного развития, где государство, в силу нехватки ресурсов и практически нищего населения, отсутствия квалифицированного менеджмента и рабочей силы, смогло бы организовать рыночные силы. Так начало свое рождение азиатская экономическая модель.

Страны Азии приняли многие черты существующих экономических моделей развитых стран, сочетая это со своими социокультурными особенностями, учитывая специфику построения отношений в обществе. Другой отличительной чертой стала роль государства, как ускорителя в экономической жизни стран региона.

Поставив в основу своего развития принцип сравнительных преимуществ, многие страны Азии смогли совершить экономический взлѐт в относительно короткие сроки, взяв на вооружение принципиально новую экономическую доктрину.

Экономическая история показывает, что нигде в мире не было и нет чисто рыночной экономики. Государственный сектор в явной или скрытой форме все равно существует, а их конкретные задачи определяются в зависимости от данного этапа развития экономики. На начальном этапе не обходимость госсектора связана прежде всего с развитием материальной инфраструктуры и базовых отраслей промышленности. То есть отраслей, которые являются фундаментальными, капиталоемкими и не обеспечивают

быструю отдачу. Это отрасли в начале своего развития непривлекательны для частного капитала не только из-за низкой рентабельности, но и в силу отсутствия у частного сектора большого объема собственных капиталов.

Помимо этого, любая комплексная и фундаментальная реформа требует от правительства предварительного изучения и анализа структуры и перспективу всех направлений экономики. подбор и корректировка тех приоритетных, на которых должна строиться будущая модель. Каждое направление должно соответствовать одному либо всем из нижеизложенных критериев - экономика должна быть : экспортоориентированной; импортозамещающей по тем товарам, которые в силу больших объемов, долгострочности их импорта или по стратегическим соображениям крайне необходимы для экономической жизни страны, либо имеют потенциал стать экспортоориентированной.

После определения приоритетных и неприоритетных секторов экономики страна берётся за реорганизацию конкретных производственных единиц различных секторов экономики - за хозяйственных субъектов, для создания наиболее эффективных производственных цепочек.

Правильная оценка приоритетных и для страны направлений и разработка механизмов оптимального взаимодействия всех цепочек хозяйства позволяет достичь максимально эффективного использования мобилизованных средств.

Азиатская модель экономического развития, в отличие от западной, имеет в себе колоссальную долю государственного участия. Оно проявляется ключевых отраслях хотя бы на первом этапе, так и непосредственным его участием в развитии экономики в целом. Можно утверждать также, что частное владение акционерным капиталом здесь не имеет определяющее значение, поскольку практически вся власть принадлежит регулирующим государственным структурам.

Модель эта опирается не только на законы конкурентного саморазвития. Рынок рассматривается не столько как среда для самосовершенствования, сколько в качестве полигона для создания, апробирования и сбыта продукции. Мотором для самосовершенствования, модернизации и развития служит государство.

Для азиатской экономической модели характерны следующие черты: сдерживание текущего потребления в пользу накопления, экспортная экспансия, централизованное индикативное планирование, позволяющее мобилизовать государственные и частные ресурсы для крупных национальных производственных и научно – исследовательских проектов, субсидирование высокотехнологичных отраслей, наличие эффективно действующего бюрократического аппарата и реальных механизмов согласования интересов государства, бизнеса и профсоюзов.

Можно утверждать, что все явления, которые в популярной экономической литературе принято называть «азиатским экономическим чудом», состоялось в рамках единой экономической политики, проводимой из единого центра при соблюдении принципа преемственности социально-политического и экономического курса при смене правящих администраций.

Причем полувековой опыт развития восточно – азиатских стран показывает, что продуктивность экономических реформ, мало зависела от типа политического режима в стране. Он может быть либерально-демократическим с элементами традиционных иерархически – корпоративных отношений как в Японии, носить авторитарный характер, с постепенной его эволюцией в либерально-демократическом направлении, как это видно на примере Южной Кореи, наконец, носить черты, присущие обществу на переходном этапе его развития – от централизованной социалистической системы к авторитарному национально- державному государству, как это происходило в Китае в 80-90 – е годы. Главный критерий здесь - способность правящей администрации контролировать эффективное функционирование государственного аппарата, поддерживать его управляемость, а также способность обеспечивать экономическую дисциплину и грамотно выбирать ориентиры и методы экономической политики.

В основе интенсивного экономического роста в ряде стран Азии лежали следующие особенности хозяйственного развития:

- высокий уровень сбережений и инвестиций;
- экспортная ориентация экономики;
- высокая конкурентоспособность в связи с относительно низкими ставками заработной платы;
- значительный приток иностранных прямых и портфельных инвестиций в силу относительной либерализации рынков капиталов;
- благоприятные институциональные факторы становления рыночно-ориентированной экономики.

Что же касается развитых стран Запада, в них давно функционирует хорошо отлаженная система государственной поддержки и стимулирования высокоэффективного мсб, особенно инновационного. В этом отношении особый интерес представляет опыт таких стран, как США, Япония, Великобритания, Канада, Франция, Израиль, так как при всех проблемах в этих странах имеет общую основу активное участие государства в проведении политики.

Особое внимание в западных странах отводится поддержке малого инновационного предпринимательства. В США институциональной поддержкой инновационного предпринимательства занимаются администрация по делам малого бизнеса. Национальный научный фонд, НАСА, университеты, отраслевые

министерство научных исследований и технологий, Федерация промышленных исследовательских ассоциаций. Патентный центр. Во Франции Министерство экономики. Национальное агентство внедрения результатов исследований. Научно-технологический фонд. В Японии Корпорация финансирования мелкого бизнеса. Народная финансовая корпорация. Центр рискованного предпринимательства. В Италии Фонд технологических нововведений.

Вместе с центральными и коммерческими банками, страховыми фондами все эти организации создают необходимую основу для эффективной реализации национальных программ поддержки малого инновационного предпринимательства.

В общем плане система государственной поддержки малого инновационного бизнеса за рубежом реализуется через два главных канала содействия: малому бизнесу в целом и предприятиям, занятым непосредственно инновационной деятельностью. Вторым каналом государственной поддержки инновационного предпринимательства является содействие инновационной деятельности в целом. Центральное место в этой системе занимает сфера НИОКР и внедрения новейших технологий на основе льготного кредитования и налогообложения, страхования и прямого финансирования венчурного предпринимательства.

Существует многообразие механизмов, с помощью которых в развитых странах мира государство участвует в создании благоприятного инновационного климата и содействует коммерциализации результатов исследовательской деятельности. В обобщенном виде применяемые инструменты можно разделить на три большие группы. Во-первых, это прямое финансовое участие государства в виде финансирования определенных проектов (например, участие в венчурном финансировании) или организаций (например, малых инновационных фирм). Во-вторых, это поддержка связей между государственным и частным сектором научно-инновационной сферы (государственно-частные партнерства). В-третьих, это финансирование создания элементов производственно-технологической инфраструктуры (технопарков, инкубаторов, офисов по продвижению технологий и т. п.).

Эффективный процесс коммерциализации технологий возможен в случае существования в стране целостной и коммерческой инновационной системы, а государственное участие в активизации инновационной деятельности является ключевым. Отметим принципиальные особенности высокотехнологической сферы за рубежом.

1. Поддержка инновационной деятельности осуществляется на всех её стадиях (от выполнения научно-исследовательской работы до реализации технологической продукции (услуг)). Как правило, государством предлагается целый спектр программ в зависимости от стадии развития технологии,
2. Многокомпонентная поддержка инновационной деятельности осуществляется с учетом региональных особенностей и государственных приоритетов. Каждая из стадий развития и преобразования знаний получает финансовую, консультационную, информационную и другие виды поддержки.

3. Большое внимание уделяется программам, переводящим результаты исследований и разработок в стадию коммерческого приложения, а также комплексным программам поддержки начинающих технологических компаний. Государство, участвуя в гарантировании рисков и финансируя высокорисковые проекты, тем самым не подменяет собой бизнеса, компенсирует «провали рынка».
4. Государство активно поддерживает развитие связей науки с промышленностью через финансирование кооперативных НИОКР на доконкурентных стадиях. При этом сотрудничество выгодно как научным организациям, так и бизнес-сектору. Существенным стимулом в таких программах является передача прав на интеллектуальную собственность, созданную за счёт бюджетных средств, и промышленность для её последующей коммерциализации.
5. При создании инновационной инфраструктуры важно строить не только те элементы, которые непосредственно относятся к сфере науки и технологического производства.

«Внешняя» инфраструктура - состояние дорог, аэропортов, других коммуникаций – должны быть привлекательными для потенциальных инвесторов, а не служить препятствием инновационному развитию.

Следует заметить, что на данный момент Грузия находится на достаточно престижном 16- месте по общепринятому рейтингу «бизнесотворения», что является весьма неплохой предпосылкой для развития МСБ в этой стране (кстати в этом списке Армения занимает 55-ую а Азербайджан-66 ую позиции), однако этот факт к сожалению отражает всего лишь легкость начала бизнеса, а не широкие возможности для прибыльного функционирования и процветания МСБ. И правда, по т н глобальной конкурентоспособности наша страна занимает только 88-ое место, тогда как Азербайджан 55-ое (Армения в данном стеке на 4 позиции уступает Грузии)

Ниже приводятся основные экономические показатели малого бизнеса за 2000-2010гг

Годы	Оборот		Выпуск продукции		Занятость		Оплата лари	
	Мил лари	Доля %	Мил лари	Доля %	человек	Доля %	Среднем По стране	В мили
2000	1265,5	33,4	493,7	20,7	125807	33,3	82,2	51,1
2005	1155,8	11,5	551,2	9,4	100415	25,8	204,5	102,3
2010	1793,4	7,7	1060,1	8,7	78772	21,6	670,3	389,0

Источник: Рациональная служба статистики Грузии. Ежеквартальной биulletень. 2011г

Как было отмечено в самом начале статьи МСБ представляет собой для Грузии важную среду для занятости населения. Думается, что данные из

приведенной выше таблицы наглядно показывают роль малого бизнеса в деле решения острых социальных проблем граждан страны.

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ИСТОРИЯ РАЗВИТИЯ НЕФТЯНОЙ ПРОМЫШЛЕННОСТИ СЕВЕРНОГО КAVKAZA

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1. НАЧАЛО ДОБЫЧИ НЕФТИ.

Коммерческая добыча нефти впервые началась во второй половине девятнадцатого века. На протяжении веков нефть добывалась людьми, которые жили в разных уголках мира, где нефть просачивалась на поверхность. В России первое письменное упоминание о получении нефти появилось в шестнадцатом веке. Путешественники описывали, как племена, жившие у берегов реки Ухта на севере Тимано-Печорского района, собирали нефть с поверхности реки и использовали ее в медицинских целях и в качестве масел и смазок. Нефть, собранная с реки Ухта, впервые была доставлена в Москву в 1597 году.

Нефтепроявления также наблюдались многочисленными путешественниками на Северном Кавказе. Местные жители даже собирали нефть с помощью ведер, вычерпывая ее из скважин глубиной до полутора метров. В 1823 году братья Дубинины открыли нефтеперерабатывающий завод в Моздоке для переработки нефти, собираемой с близлежащего Вознесенского нефтяного месторождения.

2. ИСТОРИЯ РАЗВИТИЯ НЕФТЯНОЙ ПРОМЫШЛЕННОСТИ АЗЕРБАЙДЖАНА

Первая нефтяная скважина в мире была пробурена на Биби-Ейбатском месторождении вблизи Баку в 1846 году, более чем на десятилетие раньше, чем была пробурена первая скважина в США.

С этим событием связывают начало современной нефтяной промышленности. Нефтяная промышленность Азербайджана имеет 130-летнюю историю своего развития. Колодезная добыча нефти в Азербайджане была известна ещё в далекой древности.

По свидетельству Марко Поло уже в XIII веке на Апшеронском п-ове действовали многочисленные нефтяные колодцы и добытая из них нефть использовалась для освещения и лечения больных. В начале XIV века французский монах-миссионер Журден Каталани де Северак, побывавший в Азербайджане, в своих записях упоминает о добыче нефти в окрестностях Баку. Ценные сведения о колодезной добыче нефти в Азербайджане содержатся в

сообщениях путешественников XVI-XVII веков. Колодезная добыча нефти в Азербайджане продолжалась до 1871 года.

С 1871 года в Азербайджане началась промышленная добыча нефти на месторождениях Балаханы и Биби-Эйбат с применением механического способа бурения скважин. Первая скважина, пробуренная в 1871 году в Балаханах, давала 70 баррелей (10 тонн) нефти в сутки.

С развитием техники и технологии механического способа бурения скважин на Апшеронском п-ове один за другим открываются новые нефтяные месторождения (Бинагады, о. Артема, Сураханы и др.), увеличивается добыча нефти, начинается развитие инфраструктуры нефтяной отрасли, интенсивно развивается нефтепереработка, в Азербайджане формируется национальная буржуазия.

В 1859 году в Баку был построен первый нефтеперегонный завод. В 1867 году здесь действовали уже 15 таких заводов. После отмены в 1876 году акцизного налога на нефтепродукты стали строиться новые заводы и внедряться новая технология, позволившая получать новые виды продуктов переработки. В 1876 и 1881 годах были построены два новых завода по производству смазочных масел.

Начиная с 70-х годов XIX столетия в Баку произошел невиданный в то время экономический взлет. В городе был создан мощный промышленный потенциал, были открыты сотни крупных и мелких фирм по добыче, переработке и торговле нефтью. Баку превращается в один из финансовых центров мира. В 1873 году Роберт Нобель, швед по происхождению, посетивший Кавказ (в поисках древесины для оружейной фабрики братьев Нобель в г. Ижевске в Сибири) застал "нефтяную лихорадку" в Баку и вложил 25000 рублей на приобретение небольшого керосинового завода.

Спустя несколько лет в 1876 году братья Нобель организывают в Баку нефтяную компанию по добыче и переработке нефти, впоследствии ставшей самой крупной нефтяной компанией в России, которая полностью вытеснила с российского рынка Рокфеллерскую компанию "Стандарт Ойл". Братьям Нобель принадлежали нефтедобывающие промыслы, десятки нефтеперерабатывающих заводов, нефтеналивные танкера, баржи, железные дороги, гостиницы и др.

В Бакинском регионе находилось много больших месторождений с относительно легко извлекаемыми запасами, но транспортировка нефти до рынков сбыта была трудной и дорогой. Братья Нобель и семейство Ротшильдов сыграли ключевую роль в развитии нефтяной промышленности в Баку, бывшего в то время частью Российской империи. Промышленность стремительно развивалась, и на рубеже веков на долю России приходилось более 30% мировой нефтедобычи.

3. ИСТОРИЯ РАЗВИТИЯ БАТУМИ.

Большое значение имело как для Грузии, так и для всего Закавказья, развитие Бакинской нефтяной промышленности. В дореформенный период добыча нефти на Апшеронском полуострове была ничтожной, спрос на нее был невелик. В 70-х гг. с окончанием строительства железной дороги Баку—Батуми, нефтяная промышленность Баку стала развиваться со сказочной быстротой. Если в 1850 году в Баку было добыто 260 тыс. пудов нефти, а в 1862 году — 340 тыс. пудов, то с начала 70-х годов рост добычи нефти дает следующую картину: в 1872 г. добыто 1. 500 тыс. пудов, в 1873 г. — 3 млн. пудов, в 1876 г. — 10 млн. пудов, в 1885 г. — 116 млн. пудов, а в 1890 году добыча нефти достигла 242. 900 тыс. пудов.

В нефтяную промышленность вкладывали свои капиталы не только местные промышленники (Мирзоев, Кокорев, Зубалашвили, Бектабегов, Лианозов, Бенкендорф, Муромцев, Эристави, Тер-Акопов, Джакели и др.), но и крупнейшие европейские «финансовые короли» — братья Нобель, Ротшильд и др., которые постепенно вытесняли местных капиталистов из нефтяной промышленности. Бакинская нефть быстро обеспечила себе выход на мировые рынки, где она успешно конкурировала с американской нефтью. Развитие бакинской нефтяной промышленности значительно содействовало росту промышленности в г. Батуми. После того, как железная дорога соединила Батуми с Тбилиси и с Баку, здесь быстро стало расти число фабрик и заводов. Особенно развились те отрасли батумской промышленности, которые были связаны с экспортом Бакинской нефти. Рост экспорта нефти и продуктов из Батуми наглядно виден по следующим данным; в 1883 г. было вывезено 3.349 тыс. пудов нефти и нефтепродуктов, в 1885 г. — 10. 409 тыс. пудов, а в 1891 году — 48. 872 тыс. пудов. В некоторые годы количество нефти, экспортируемой из Батуми, составляло свыше 20 процентов мирового потребления нефти. Для хранения нефти капиталисты выстроили в Батуми железные резервуары, вмещавшие в себе миллионы пудов. За границу нефть вывозилась на особых нефтеналивных судах, а также в бочках и бидонах, которые укладывались в деревянные ящики. В связи с этим в Батуми возникли предприятия, выпускавшие тару для экспорта нефти (бидоны, металлические и деревянные ящики). Бидоны изготовлялись из белой жести, которая ввозилась из Англии. Подавляющая часть этой импортной белой жести поступала на батумские предприятия. Например, в 1889 году в Россию было завезено 1.076.724 пуда белой жести, из которых 1.059. 161 пуд был использован батумской промышленностью. Для производства ящиков требовалось большое количество лесоматериалов, которые поступали в Батуми как из отдельных районов Грузии, так из России и из-за границы. Особенно много леса ввозилось из Австрии, откуда лес доставлялся в Одессу по железной дороге, а оттуда морским

путем в Батуми. В 1890 году в Батуми морем было завезено 2. 700 тыс. пудов лесоматериала. Первый завод экспортной нефтяной тары был построен в Батуми в 1883 году капиталистами Бунге и Палашковским. Завод ежедневно изготовлял 12 тыс. бидонов и 6 тыс. деревянных ящиков. С 1886 года завод перешел в руки Ротшильда и был расширен, его производительность достигла 36 тыс. бидонов и 18 тыс. деревянных ящиков в день. Предприятие насчитывало более 150 станков, все основные процессы были механизированы, оно ежегодно расходовало 150 тыс. пудов угля (ткибульского) и 1000 кубических сажень дров. Помимо этого завода в Батуми были основаны 10 других предприятий по производству тары для экспорта нефти, их дневная производительность составляла примерно 100 тыс. бидонов и 60 тыс. деревянных ящиков.

Каспий и Северный Кавказ оставались центром советской нефтяной промышленности вплоть до Второй мировой войны. Растущая добыча удовлетворяла потребности индустриализации России. Контроль добычи нефти в Баку, отсечение Советского Союза от добычи в этом регионе, были основной стратегической задачей Германии во время войны. Добыча нефти на Каспии снова начала расти после войны, и в 1951 году достигла рекордного уровня в 850 000 баррелей в день. Баку оставался крупным промышленным центром, около двух третей советского нефтяного оборудования производилось в этом регионе.

3. В РАЗВИТИИ НЕФТЯНОЙ ПРОМЫШЛЕННОСТИ АЗЕРБАЙДЖАНА МОЖНО ВЫДЕЛИТЬ 5 ЭТАПОВ:

I ЭТАП - колодезная добыча нефти до 1871 года.

II ЭТАП - промышленная добыча нефти с применением механического способа бурения с 1871 года до национализации нефтяной промышленности в 1920 году.

III ЭТАП - после национализации нефтяной промышленности в Советское время до открытия и ввода в разработку крупного морского месторождения Нефтяные камни (ныне Нефтдашлары) в 1950 году.

IV ЭТАП - с вводом в разработку месторождения Нефтяные камни в 1950 году (значительное расширение поисково-разведочных работ, открытие и ввод в разработку новых нефтегазовых месторождений в Каспийском море, интенсивное развитие инфраструктуры морской нефтегазодобычи) до подписания в 1994 году первого "Контракта века" с вовлечением иностранных инвестиций.

V ЭТАП - начинается с подписанием 20 сентября 1994 года первого крупного "Контракта века" по месторождениям Азери-Чираг-Гюнешли (глубоководная часть) и вовлечением крупномасштабных иностранных инвестиций в нефтяную отрасль суверенного Азербайджана. К 80-му году XIX столетия в Баку было построено 200 небольших нефтеперегонных заводов (установок), значительная часть которых принадлежала братьям Нобель.

После установления Советской власти в Азербайджане в 1920 году нефтяная промышленность была национализирована и добыча нефти в 1921 году упала до 2.4 млн. тонн. В последующие годы с расширением поисково-разведочных работ открывались и вводились в разработку новые месторождения, из года в год увеличивалась добыча нефти, достигая 23.6 млн. тонн в 1941 году, что составляло почти 76% общесоюзной добычи нефти в то время.

В 1941-1945 годах во время войны добыча нефти в Азербайджане упала до 11.1 млн. тонн в связи с перебазированием нефтедобывающих мощностей Азербайджана в новые нефтяные районы Туркмении, Татарии, Башкирии и другие восточные районы России.

В послевоенные годы с открытием месторождений Гюргяны-море в 1947 году начинается морская добыча нефти в Азербайджане, хотя на острове Пираллахы (о. Артема) нефть добывалась еще с 1902 года. В 1950 году в открытом море было выявлено и введено в разработку крупное нефтяное месторождение Нефтяные камни (Нефтдашлары). С этого времени начинается новый этап развития нефтяной промышленности, значительно расширяются морские геологоразведочные работы, один за другим открываются и вводятся в разработку новые нефтяные и газовые месторождения (Песчаный-море, Бахар, Сангачалы-Дуваный-море-о.Булла, Булла-море и др.), развиваются техника и технология морского бурения, инфраструктура морской добычи нефти.

В 1965 году уровень добычи нефти в Азербайджане достигает 21.6 млн. тонн. Дальнейшие перспективы развития добычи нефти и газа в Азербайджане связаны в основном с морскими месторождениями. В Азербайджанском секторе Каспийского моря открыто 28 месторождений нефти и газа (18 из них находятся в разработке), выявлено более 130 перспективных структур. За всю историю разработки морских месторождений Азербайджана добыто более 460 млн. тонн нефти с конденсатом и порядка 345 млрд. м³ газа. Максимальный уровень добычи нефти из морских месторождений в объеме 12.9 млн. тонн был достигнут в 1970 году, а газа в объеме 14 млрд. м³ - в 1982 году. В настоящее время Государственной Нефтяной Компанией Азербайджанской Республики (ГНКАР) из морских месторождений добывается 7.5 млн. тонн нефти и 5 млрд. м³ газа в год. В сентябре 1994 года для разработки открытых ещё в 80-х годах месторождений Азери, Чираг и глубоководной части Гюнешли был подписан крупный (по извлекаемым запасам и объему инвестиций) "Контракт века" типа "Продакшн-Шеринг" или "СРП" (Соглашение о Разделе Продукции) с участием 12 известных нефтяных компаний мира из 8 стран.

С подписанием первого крупного контракта типа "СРП" по месторождениям Азери-Чираг-Гюнешли (глубоководная часть) в азербайджанском секторе

Каспийского моря нефтяная промышленность Азербайджана вступила в новый этап своего развития.

ГОСУДАРСТВЕННАЯ НЕФТЯНАЯ КОМПАНИЯ АЗЕРБАЙДЖАНСКОЙ РЕСПУБЛИКИ

Государственная Нефтяная Компания Азербайджанской Республики является одной из крупнейших нефтяных компаний в мире. С целью использования нефтяных ресурсов Азербайджанской Республики на основе единой государственной политики, усовершенствования структуры управления нефтяной индустрией, обеспечения развития топливно-энергетического комплекса Распоряжением Президента Азербайджанской Республики Г.Алиева от 13.09.1992 г. на базе Государственного Концерна «Азернефть» и Производственного Объединения «Азернефтькимья» была создана Государственная Нефтяная Компания Азербайджанской Республики. В целом, «Азернефть», олицетворявшая Азербайджанскую нефтяную индустрию, в зависимости от специфики объединяемых и управляемых ею предприятий в различные времена, подчинялась различным союзным и республиканским организациям в качестве треста или объединения (Совет Народных Комиссаров Азербайджанской ССР, Верховный Совет Народного Хозяйства СССР, Министерство Тяжелой Промышленности СССР, Совет Народного Хозяйства Азербайджанской ССР) и называлась «Азернефтькомитет», «Азернефтькомбинат» (в дальнейшем была разделена на объединения «Азернефть», «Азернефтьзаводлары» и «Азернефтьмашынгайырма»), Объединение «Азернефтьчыхарма». В управлении компании находится два нефтеперегонных завода, несколько международных нефтегазовых трубопроводов и несколько инженерных компаний. В настоящее время ГНКАР по объему капиталу является 68-й самой крупной компанией в мире. ГНКАР занимается поиском, разведкой и разработкой нефтяных и газовых месторождений на всей территории республики, в том числе и на сухопутных и морских участках. Занимается подготовкой, обработкой и транспортировкой нефти, газа, газового конденсата, а также продажей получаемых от них продуктов на внутренних и зарубежных рынках. Она также выполняет в большом объеме научно-исследовательские и проектные работы. В настоящее время в Азербайджане существует 57 месторождений, богатых нефтью, 18 из которых находится в Азербайджанском секторе Каспийского моря, остальные на суше. В целом, бассейн Каспия располагает примерно 30 миллиардами тонн запасов нефти и 18-20 триллионами кубических метров запасов газа, что составляет 15% мировых углеводородных ресурсов. В Азербайджанском секторе Каспийского

бассейна существует 3-5 миллиардов тонн запасов нефти и 5 триллионов кубических метров газовых запасов

ДЕЯТЕЛЬНОСТЬ В ЗАРУБЕЖНЫХ СТРАНАХ

ГНКАР открыл свои представительства в ряде городов: Стамбуле, Тегеране, Астане, Бухаресте, Франкфурте, Женеве, Лондоне, Вене, Тбилиси, Киеве. ГНКАР предусматривает строительство в Румынии нефтехимического перерабатывающего комплекса. Продукты, производимые на этом заводе, будут отправляться в страны Европы. Представительства ГНКАР в Германии и Австрии сотрудничают с европейскими компаниями в сфере реализации проекта «Набукко». В 2008 г. в Швейцарии открылась дочерняя компания ГНКАР «SOCAR Trading SA». В ее основную функцию входит организация продажи азербайджанской нефти в Европе. Финансовый фонд компании составляет 5 миллионов швейцарских франков. В 2007 году Турции начали строить завод «Petkim», являющийся одним из крупнейших нефтеперегонных заводов в стране. Государственная Нефтяная Компания Азербайджана намерена открыть до конца 2011 года на Украине 17 бензозаправочных станций. До 2015 г. компания сдаст в эксплуатацию в Румынии бензозаправочных станций.

SOCAR ENERGY GEORGIA MMC

Еще одна дочерняя компания ГНКАР «SOCAR Energy Georgia» MMC была создана в 2006 г. Вся деятельность компании осуществляется в Грузии. В основной круг деятельности «SOCAR Energy Georgia» MMC входит оптовая и розничная продажа нефти в Грузию, импорт в страну нефти, нефтепродуктов, а также сжиженного газа, строительство нефтяных терминалов и хранилищ. Компания контролирует в Грузии 72% продажи нефти и 61% продажи дизеля. Кроме того, Кулевский нефтяной терминал также находится в управлении компании. ГНКАР ежемесячно импортирует в Грузию 20.000 тонн нефтяных продуктов, а также 15.000 тонн бензина. Объем инвестиций, вложенных компанией по сегодняшний день в грузинскую экономику, составляет 400 миллионов долларов США, кроме этого, ГНКАР в течение 3 лет подряд (2008, 2009, 2010 гг.) была наиболее крупным налогоплательщиком в Грузии. Только в 2010 году ГНКАР внесла в Грузинский бюджет налог в размере 100 миллионов долларов США. ГНКАР открыла в Грузии и несколько бензозаправочных станций. В настоящее время в Грузии количество бензозаправочных станций, принадлежащих ГНКАР, достигло 60. Кроме того, согласно договору, достигнутому в 2010 г., компания «SOCAR Energy Georgia» была генеральным спонсором Грузинской Футбольной Федерации. 12 апреля 2011г. в Грузии ГНКАР сдала в пользование 66-ю бензозаправочная станцию.

Umeo –обеспечивает перевозку азербайджанской нефти в порт Новороссийск через трубопровод Баку-Новороссийск.

Azfen BM – совместное предприятие ГНКАР

SOCAR cape - совместное предприятие ГНКАР

С целью более эффективной добычи нефти и природного газа как в море, так и на суше ГНКАР осуществляет совместные проекты со многими мировыми компаниями. На сегодняшний день ГНКАР подписала 26 соглашений по совместной разработке нефтегазовых месторождений Азербайджана с более чем 30 компаниями из более чем 20 стран мира. По своей значимости, глобальное значение проектов «Азери-Чираг-Гюнешли», «Шахдениз», Баку-Тбилиси-Джейхан (BTC) и Южно-Кавказский газопровод, имеют весьма важное значение. В настоящее время именно в море, Азербайджанском секторе Каспийского моря осуществляются такие проекты как «Азери-Чираг-Гюнешли» и «Шахдениз», находящиеся в центре мирового внимания. По соглашению, полномасштабная разработка месторождений проводится в 3 фазы (этапа). Проект «Фаза-1» охватывает полномасштабную разработку центральной части месторождения «Азери», проект «Фаза-2» – западной и восточной частей месторождения «Азери», а проект «Фаза-3» – месторождений «Азери» и «Чираг» и глубинной части месторождения «Гюнешли».

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ДЕТСКИЕ СТОМАТОЛОГИЧЕСКИЕ ЗАБОЛЕВАНИЯ

Кетеван Ширшари-Нанобашвили

Тбилисская Медицинская Академия

Заместитель Представителя Международного Центра

Диаспора Азербайджана в Грузии.

Проблема денфобии у детей



Кариес - одна из самых распространенных проблем у детей. Молочные зубы сильнее подвержены разрушительному действию бактерий, которые вызывают кариес. Тонкая эмаль не предохраняет зуб достаточно, как у взрослых, в результате кариозный процесс проникает вглубь, вызывая пульпит (воспаление «нерва зуба») и периодонтит (воспаление зубных тканей). Болезнь может затронуть сразу несколько зубов или один зуб в нескольких местах.

Тщательный уход за зубами, ограничение ребенка в сладком помогут предупредить развитие болезни. Сохранить зуб, пораженный кариесом можно, если во время обратится к врачу-стоматологу за консультацией.



Большая часть родителей считают, что лечить молочные зубы бессмысленно, так как они выпадут, а коренные вырастут здоровыми. Это не так. Если больной молочный зуб выпал, на его месте появится уже пораженный новый зуб. Ведь зубные дефекты – это инфекция в организме, которая оказывает негативное влияние на работу сердечно-сосудистой системы и желудочно-кишечного тракта. Разрушенные зубы могут стать причиной неправильного

прикуса. Поэтому так важно лечить молочные зубы. Если не лечить кариес у детей, это приведет к более серьезным проблемам с зубами, а также дальнейшему проникновению инфекции в организм ребенка.

Кроме неправильного представления о значимости сохранения молочных зубов, в детской стоматологии также остро стоит проблема дентофобии (стоматофобия – боязнь стоматологического лечения).

Для того, что преодолеть страх перед стоматологическими манипуляциями важнейшим моментом является соблюдение врачебной этики, отношение к «особенным пациентам» и правильное деонтологическое представление о работе с «испуганными» больными.



Слово «Деонтология» происходит от греческого DEON – «долг» и переводиться «наука о должном». Медицинская деонтология – это совокупность этических норм и принципов поведения медработников при выполнении своих профессиональных обязанностей. Врачебная этика включает:

Общие вопросы поведения

• Врачебные правила, регулирующие взаимоотношения врача и пациента; взаимоотношения врача с коллегами.

- У врачей, в том числе и у стоматологов, прямое отношение к исполнению профессионального долга имеют их общемедицинская подготовка, владение современными методами профилактики, диагностики, лечения и реабилитации, психотерапевтическое искусство, строгое соблюдение правил внутренней (отношение к труду, дисциплина, дружелюбие и чувство коллегиальности) и внешней (приличие, хороший тон и соответствующий вид) культуры поведения.
- Кроме поведения врача в лечебном заведении, вышеуказанную проблему, особенно в детском население, можно решать и путём прямо-профессиональным контактом с маленькими пациентами.

В связи с этим вопросом у многих стоматологов имеется разные мнения.

Чтобы помочь пациентам в краткосрочной или долгосрочной перспективе уменьшить беспокойство о предстоящем лечении, в стоматологии предлагаются различные методы:

Отвлечение – используя этот метод, пациент забывает о своем страхе. Во время лечения больной должен быть отвлечен с помощью средств внешнего воздействия (например, музыки или фильмов) или с помощью терапевтической поддержки (гипноза или мечтания). Пациент отвлекается от фактического лечения и ничего не замечает.

Поведенческая терапия – этот метод основан на предположении, что страх является усвоенным поведением. Пациенты должны осознать свои проблемы и быть уверенными о действиях врача. На нескольких встречах с пациентами обсуждаются и разыгрываются потенциальные ситуации у стоматолога, чтобы они узнали и были уверены, что фактическая ситуация не страшна. Этот процесс может занять несколько недель. Тем, кто по-настоящему боится стоматологов, психологи советуют признать, что у них фобия, и заставить себя ходить к стоматологу как можно чаще, включая то время, когда зубы абсолютно здоровы.

Обычный общий наркоз – это по своей сути очень глубокий сон, вызванный искусственно с помощью специальных лекарственных препаратов. Многие пациенты всё же боятся использования общего наркоза. Однако, процедура проведенная квалифицированным и опытным анестезиологом абсолютно безопасна и имеет свои преимущества. Лечение проходит без боли, так как пациент пребывает в состоянии сна с потерей болевой чувствительности. Кроме того, значительно экономится время – за одно посещение пациенту можно вылечить сразу несколько зубов. Восстановление после пробуждения происходит по-разному, часто наблюдаются послеоперационные эффекты, такие как тошнота, рвота и головная боль.

Тотальная внутривенная анестезия (ТВА) – с помощью этого метода, пациент погружается в сон, который обусловлен одновременным внутривенным введением обезболивающих и снотворных средств. В то же время это состояние не такое глубокое, как при использовании наркоза. Это можно описать как своего рода «сумерки», когда пациент не замечает, что происходит вокруг, но в то же время он не «отключается» полностью.

Но, в детском возрасте побороть эту проблему несколько сложнее, хотя не невозможно. По нашему мнению и опыту одним из наилучших способов – это опознавательный информативный путь общения с маленькими пациентами. В виду имеется посещение учебных заведений стоматологами, где контакт происходит на «территория пациентов», которым доктор объясняет значение профилактических манипуляций для сохранения здоровья зубов. А детей, уже с заболевшими зубами, приглашает к себе (в клинику) для тщательного осмотра и лечения.

Конечно, мы не доказываем, что метод неоспорим, но наряду с другими путями побороть дентофобию в детях, нами предложенный метод может сыграть важную роль в решении вопроса «страха».

Регулярный осмотр ребенка у стоматолога позволит предотвратить развитие стоматологических заболеваний, обеспечить необходимую профилактику. Даже выбор зубной щетки и пасты для малыша лучше делать вместе с дантистом. Раз в месяц посещайте с ребенком зубного врача, вы обеспечите своему малышу здоровые зубы и десна.

Поэтому необходима проведение профилактики у детей в клиниках. Эта предотвратит заболевание зубов у детей. Необходимо открывать новые медицинские учреждения, стоматологические клиники для детей дошкольного и подросткового возраста.

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the 1990s, the number of people with a mental health problem has increased in the UK (Mental Health Act 1983, 1990).

There is a growing awareness of the need to improve the lives of people with mental health problems. The Department of Health (1999) has set out a vision of a new mental health system, which will be based on the following principles:

- (i) People with mental health problems should be treated as individuals, with their own needs and wishes.
- (ii) People with mental health problems should be given the opportunity to participate in decisions about their care and treatment.
- (iii) People with mental health problems should be given the opportunity to live in their own homes and communities.

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