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Climate Change Financing in Azerbaijan

Baku-2019

CONTENT

Summary	2
Introduction.....	3
1. Legal and institutional framework for combating climate change in Azerbaijan	6
2. Climate related activities in Azerbaijan and their financing	14
3. Public finance management and budget system in Azerbaijan	21
4. Relevant units and staff of the Ministry of Finance of the Republic of Azerbaijan involved in climate-related financing.....	24
5. SWOT analysis	28
Conclusion and Proposals	29

Summary

The whole world is worried about the Climate change and its consequences. Azerbaijan, like other countries, has been negatively affected by climate change. The global nature of the problem requires concerted efforts to reduce the negative effects of climate change and to take adaptation measures, as well as to strengthen international cooperation in this area. In this regard, the Republic of Azerbaijan has joined a number of key international agreements and initiatives currently in force at the global level to combat climate change.

Taking urgent action to combat climate change and its effects has been identified as one of the Sustainable Development Goals adopted by world leaders at the 2015 UN historic summit. One of the targets is to meet the needs of developing countries for substantial measures to mitigate climate change and implement transparency, as well as fulfillment of the commitment of the developed countries which are parties to the Framework Convention on Fundraising to raise a total of \$ 100.0 billion annually from all sources by 2020 in order to ensure the full operation of the Green Climate Fund through capitalization as soon as possible.

In general, mitigation and adaptation efforts to combat climate change require significant financial resources. In this regard, the financing of measures to combat climate change, the attraction and efficient use of financial resources in this area is one of the most important issues for all countries, especially developing countries.

The main purpose of the report is to analyze climate-related activities in Azerbaijan and the current state of their financing, SWOT analysis of the capacity and infrastructure of the relevant departments and staff of the Ministry of Finance of the Republic of Azerbaijan and, identifying gaps and problems in order to develop pilot projects to attract financial resources for mitigation and adaptation measures against climate change.

Introduction

Climate change and its consequences are disturbing the whole world. According to the latest data of the World Meteorological Organization, the first decade of the 21st century is the hottest decade according to all instrumental meteorological observations. According to the latest report of the Intergovernmental Panel on Climate Change, over the past 100 years, the average annual temperature on Earth has increased by 0.8°C, the world ocean level has risen by 15-25 cm and the ocean depth has reached to 3000 meters. Both intensity and frequency of typhoons and blizzards have increased. Hot winds, hurricanes and rainfalls have intensified. At the same time, there has been an increase in the number of deluges and floods.

Azerbaijan, like other countries, has been exposed to negative impacts of climate change. Studies in this area show that there is also a tendency of rapid climate warming in our country. Over the past 100 years, the average annual temperature in the country has risen by 0.4-1.4°C. The rise in temperature has been unevenly distributed among the regions. Over the past 10 years, the number and strength of deluges and floods in small mountain rivers have been growing in Azerbaijan. In some areas of the country there is a decrease in biodiversity. In addition, a decrease is observed in water resources in Azerbaijan.

According to perennial meteorological observations, two periods (1991-2017, and 1961-1990, which is considered as climatological normal) were evaluated and determined that most of the warming was recorded in the foothills and middle mountainous parts of the Greater and Lesser Caucasus. The average annual increase in temperature in these areas is 0.9-1.1 and 1.0-1.4°C, respectively. The minimum increase was recorded in the Nakhichevan Autonomous Republic and Lankaran-Astara region (0.3-0.6°C). In general, according to the UN assessment in 2011¹, the temperature is expected to rise to 1.0-1.6°C by 2050 and to 4.1-4.5°C by 2100 compared to the base year.

Comparative analysis conducted for 1961-1990 and 1991-2017 shows that the amount of atmospheric precipitation in Azerbaijan decreased by 2-14%. In the warm period of the year, the amount of precipitation decreases by 17%. In the future, this trend is expected to continue.

With climate change, water shortages that are already on the rise are expected to increase even more. It is estimated that water shortages of approximately 5 km³ will increase to 9.5 km³-11.5 km³ by 2050. From 2021 to 2050, surface water will decrease to 23%, while water resources will decrease to 23% from the base by the end of the century. These changes reflect changes in atmospheric precipitation and an increase in evapotranspiration as a result of increased temperature. This could result in a triple or fourfold increase in water scarcity from the base year. In terms of managing expected climate change, a number of measures aimed at significant improvement of water management in the agricultural and electricity sector of the country (water in the electricity sector is expected to be used more in the future) are required. Negative effects on mortality in the city as a result of increasing water level in the Caspian sea and in temperature, which necessitates investment in coastal management infrastructure and potentially displacement of facilities, and return of the malaria, which was typical in certain parts of the country at one time are included in the expected adverse effects.

¹ UN, 2011. Regional Climate Change Impacts Study for the South Caucasus Region. Tbilisi.

One of the biggest problems in terms of climate change is the risk caused by the movement at the level of the Caspian Sea in the 850 km coastline of Azerbaijan. Azerbaijan, especially its territories below the sea level, is prone to flooding. The factor that causes floods is the overflow of Kur and Araz rivers due to the increase in rainfall. The risks of natural hazards also increase due to over-use of agriculture, land change, deforestation, and degradation and erosion of the land created by proper irrigation methods.

The global nature of the problem necessitated the consolidation of efforts of mitigation and adaptation of the negative impacts of climate change and to strengthen international cooperation in this area. In this regard, the Republic of Azerbaijan joined the UN Framework Convention on Climate Change in 1995. The country, as a non-Annex 1 party of the Framework Convention on Climate Change, has undertaken obligations such as the development and regular updating of the cadastre of gas waste with thermal effects and preparation of national data and tries to fulfill these obligations systematically.

The Republic of Azerbaijan also approved the Kyoto Protocol of the UN Framework Convention on Climate Change in 2000. The Doha Amendment adopted for the second period of implementation of obligations under the Kyoto Protocol was ratified by the Milli Majlis of the Republic of Azerbaijan on April 14, 2015.

At the same time, the Paris Agreement, which was added to the UN Framework Convention on Climate Change, was signed by the Republic of Azerbaijan on April 22, 2016 and ratified in October. According to the Paris Agreement, as a contribution to mitigating the effects of global climate change in the intended nationally determined contributions of the Republic of Azerbaijan, a reduction of 35% in the level of emissions of gases with thermal effects compared to the 1990 base year by 2030 was targeted. It should be noted that the emission of greenhouse gases in Azerbaijan makes up 0.1% of the global indicator.

The urgent measures to combat climate change and its impacts were adopted by world leaders at the UN historical summit in 2015 and defined as one of the Sustainable Development Goals (SDGs) reflected in the 2030 Agenda for Sustainable Development, which came into force on January 1, 2016. One of the goals set for this purpose is to meet the needs of climate change mitigation and implementation transparency-based measures in developing countries, as well as the fulfillment of the obligation of the developed countries participating in the UN Framework Convention on Climate Change to collect 100.0 billion USD in total per year from all sources by 2020 to ensure the full functioning of the Green Climate Fund in the shortest possible time through capitalisation.

In general, mitigations and adaptation measures in the fight against climate change require a large amount of financial resources. In this regard, financing, attracting and efficient use of financial resources in this area are important issues for all countries, especially developing countries.

The main purpose of the report is to analyse the current status of capacity and infrastructure (IT, financial software, etc.) of the concerned personnel of the Ministry of Finance of the Republic of Azerbaijan in developing the pilot projects to attract financial resources to the mitigation and adaptation measure carried out in the fight against climate change, to determine the gaps and issues in

this field and to provide recommendations aimed at building the capacity of using the mechanisms of of government to refer to the relevant funds and advanced financing tools.

1. Legal and institutional framework for combating climate change in Azerbaijan

In recent years, the oil and gas sector is the main source of revenues from export, foreign currency revenues and state budget revenues in the Republic of Azerbaijan, as well as the main determinant of economic growth and economic activity. Since 2006, increasing oil revenues have contributed to significantly increasing public expenditures and have accelerated the economic growth and started financing of a number of infrastructure projects through public investment.

The sharp decline in oil prices in the world market since 2014 has led to a decrease in foreign exchange and budget revenues in Azerbaijan and a weakening of the pace of economic growth. The government announced the beginning of the post-oil period and began implementing large institutional and structural reforms.

As a developing country, the problems associated with climate change are also relevant to Azerbaijan. The main expectations regarding climate change may include the rise of the air temperature to 1.4-2.8°C by 2050, the increase in the number of natural phenomena, especially floods, and the rise in the level of the Caspian Sea by 1.5-2 meters by 2050. The results of various assessments show that the agricultural sector, water resources sector, coastal zones, energy sector, forest sector, tourism sector and health sector are the most vulnerable sectors to climate change in Azerbaijan. The areas most vulnerable to climate change are the agricultural sector, water sector and coastal zones. Azerbaijan is considered one of the most flood-affected areas in the world. Emergencies, mainly floods and landslides damage Azerbaijan worth to about \$ 70-80 million per year².

According to Article 39 of the Constitution of the Republic of Azerbaijan, everyone has the right to live in a healthy environment, and no one can threaten or harm the environment and natural resources beyond the limits established by law. According to the Constitution, the state guarantees the maintenance of ecological balance and protection of the legally established species of wild plants and wild animals.

Although there is no specific climate change strategy in Azerbaijan yet, measures have been taken in recent years to improve legislation in Azerbaijan and to adapt existing regulations to the provisions of international treaties acceded by the country, as well as to the legislation of the European Union. A number of new laws have been adopted and amendments have been made to improve environmental legislation.

The legislation mainly covered the areas of atmospheric air, water resources, domestic and industrial waste, water bioresources and protection of biodiversity. Along with the adoption of new laws, appendices and amendments to existing laws, relevant regulations and rules have been developed and approved in order to ensure their implementation.

² Climate change risk profile Azerbaijan. USAID Factsheet.

https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID_Climate%20Change%20Risk%20Profile_Azerbaijan.pdf

It should be noted that the financial mechanisms for environmental protection in the country are regulated by the "Rules for payments for natural resources and rules for imposing and using of the payments for harmful substances released into the environment" which was approved by the Cabinet of Ministers of the Republic of Azerbaijan on March 3, 1992 No. 122 , as well as are regulated by the Law on Environmental Protection.

Climate change is a global problem, and from this point of view, when talking about the legal framework for combating its negative effects, first of all, the international conventions and protocols acceded by the country should be mentioned. The Republic of Azerbaijan has joined 21 conventions and signed relevant protocols so far.

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The priority sectors for mitigation measures were defined as the energy (energy efficiency, and alternative and renewable energy), oil and gas production, utilities and commerce, transport, agriculture, waste management, forestry and land use Sectors within the intended nationally determined contributions.

Despite the fact that Azerbaijan has not taken quantitative obligations under the Kyoto Protocol in connection with the reduction of greenhouse gas emissions, a number of important measures have been implemented in the country in recent years, which include the application of low-carbon renewable energy and waste management technologies with high-energy efficiency, as well as the steps taken for the expansion and protection of forest areas.

In addition to national initiatives related to the mitigation, Azerbaijan successfully cooperates with a number of international organizations through the implementation of various projects. Thus, more than 30 projects have been implemented on climate change mitigation technology and capacity building in this area.

In 1997, the State Commission on Climate Change was established, and the relevant ministries, committees and other relevant organizations were included in the Commission. In order to better coordinate the environment and climate change policy, the State Committee on Ecology was abolished in 2001 and the Ministry of Ecology and Natural Resources was established. In addition, the State Hydrometeorology Committee, formerly an independent body, also became a part of the Ministry of Ecology and Natural Resources.

In 1998-2000, the Initial National Communication of the Republic of Azerbaijan to the UN Framework Convention on Climate Change was developed. In 2010 and 2016, the second and Third National Communications were developed and presented.

Within the framework of the Caspian Environment Programme in Azerbaijan, which was implemented in 2002-2005 with the Canadian International Development Agency, projects contributing to the reduction of greenhouse gases were implemented. In 2003-2006, Azerbaijan participated in the regional project on quality improvement in the process of inventory of greenhouse gases. In 2004-2005, the project on evaluation of National Communication development skills was implemented in Azerbaijan.

In 2004-2006, Azerbaijan participated in the project of Technical Support to Caucasian Countries and Moldova on Global Climate Change Commitments within the TACIS program. Since 2006, with the support of the Norwegian government, capacity building on the Clean Development Mechanism (CDM) project has been implemented;

In September 2015, the first intended nationally determined contributions were submitted to the Secretariat of the Convention.

In addition, the country's mitigation and adaptation strategies for climate change are reflected, directly or indirectly, mainly in the following documents, government programmes and development concepts:

- National Environmental Action Plan for 1998-2003 (1998);
- National Program on forest restoration and expansion (2003-2008);
- Development Program of Hydrometeorology in the Republic of Azerbaijan (2004);
- State Program on Use of Alternative and Renewable Energy Sources (2004);
- Comprehensive Action Plan on improving the environmental situation in the Azerbaijan Republic for 2006-2010 (2006);
- Development Concept "Azerbaijan - 2020: Outlook For The Future (2012);
- State Programme on Reliable Food Supply of the Population in the Republic of Azerbaijan during 2008-2015 (2008-2015);
- State Program on socio-economic development of regions (2004-2008, 2009-2013, 2014-2018 and 2019-2023);
- State Program on Poverty Reduction and Sustainable Development (SPPRSD) 2008-2015 (2008-2015);
- National Strategy of the Republic of Azerbaijan on Conservation and Sustainable Use of Biodiversity for 2017-2020;

- Strategic Roadmap on production and processing of agricultural products in the Republic of Azerbaijan (2016).

The **National Environmental Action Plan for 1998-2003** was the first strategic document covering issues related to climate change. As a result of the implementation of this action plan, public participation in the policymaking and identification of priorities was ensured, dialogue between the parties was established and assistance was provided to local and regional authorities.

Within the **National Program on forest restoration and expansion (2003-2008)** about 60,000 hectares of forests have been restored and new forests established. This indicator was 2 times more than in the previous 5 years. The positive role of forests and greenery in global climate change was underlined in the comprehensive action plan for the implementation of complex forest restoration and forestry activities envisaged in the national program.

As one of the main objectives of the **Development Program of Hydrometeorology in the Republic of Azerbaijan (2004)**, improvement of climate and climate change observation and assessment system, integration into Global Climate Observing System (GCOS) and Global Terrestrial Network - Hydrology (GTN-H) were determined.

The State Program on Use of Alternative and Renewable Energy Sources (2004) was developed to support the development of a number of renewable energy sources in the country. Within the program, it is planned to identify the main directions for the year 2020 on the generation of electricity and thermal power from alternative and renewable sources, develop legislative frameworks; implement incentives (for example, Feed-in-tariffs and direct subsidies) and projects on the development of alternative and renewable energy.

Comprehensive Action Plan for 2006-2010 on the improvement of Ecology in the Republic of Azerbaijan (2006) includes the establishment of an early warning system to reduce damage caused by dangerous hydro-meteorological phenomena associated with climate change, and completion of the forest structure and design activities to identify the perspectives of reducing the anthropogenic pressure on the forest fund and establishing new forest gardens based on the country's climate, soil conditions and organic farming.

Development Concept "Azerbaijan - 2020: Outlook For The Future was approved in 2012. The concept emphasizes the possible impact of climate change on society and economy in the country and the importance of the necessary policy measures. The document provides for the approximation of the average amount of energy used for the production of a single unit of GDP and carbon dioxide (CO₂) emitted to the relevant indicator for the Organization for Economic Cooperation and Development (OECD) countries in the period covered by the Concept.

The state program on reliable food supply of the population in the Republic of Azerbaijan in 2008-2015 emphasized that climate change is one of the main factors causing food shortages in the world and the measures to be taken to ensure food security in the country were determined.

The objectives of the **state programs on socio-economic development of regions** (for 2004-2008, 2009-2013, 2014-2018 and 2019-2023) also included the creation of a favorable environment in the

Republic of Azerbaijan that allows the efficient use of natural resources and the development of an ecological security system that ensures reliable protection of the environment.

The State Program on Poverty Reduction and Sustainable Development (SPPRSD) 2008-2015

can be regarded as essentially the National Sustainable Development Strategy of the country. Environmental issues have been taken into account not only in the environmental sector but also in other sectors of the programme, especially in the sectors of economic development, education (strengthening environmental awareness-raising), as environmental sustainability relates to other areas. In order to achieve the goals set forth in the field of sustainable management of the environment, within the SPPRSD mainly the measures in the following priority areas are intended to be taken:

- sustainable management of forest resources;
- sustainable management of water resources;
- sustainable management of land resources and prevention of desertification;
- sustainable management of biodiversity;
- sustainable management of atmospheric air;
- expansion of the use of alternative energy sources;
- comprehensive waste management;
- comprehensive management of mountain and coastal ecosystems;
- improvement of regulatory framework, monitoring systems and resources for environmental management;
- strengthening ecological awareness-raising and information.

The main objective of the **National Strategy of the Republic of Azerbaijan on Conservation and Sustainable Use of Biodiversity for 2017-2020** is taking actions aimed at the effective use of genetic resources, protection of biodiversity and its delivery to future generations, elimination of poverty, regulation of ecological balance, ensuring the transition to "green economy", stimulation of ecological education, restoration of endemic flora and local fauna types, improvement of the network of specially protected nature areas and reduction of the pressures against the biodiversity. The strategy includes the development of climate-sensitive areas (swampy, high-mountainous areas, coastline of the Caspian Sea, etc.) assessment of the impact of climate change on biodiversity and development of adaptation programs, expansion of the use of traditional plant varieties and animal breeds resistant to adverse environmental factors against the backdrop of global climate change.

The Strategic Roadmap on production and processing of agricultural products in the Republic of Azerbaijan, approved in 2016, is mainly focused on a wide range of issues related to climate change. The document stressed the need to adapt agricultural activities to global climate changes and that the climate factors such as high temperatures, changes in the nature of rainfall, extreme weather conditions (drought, etc.) have led to a decline in productivity in plant and animal husbandry. The importance of expanding the application of plant varieties and animal breeds adapted to these changes and promoting the development of "climate-based smart agriculture" were emphasized on the strategic road map.

In general, agriculture is one of the most sensitive areas of the Azerbaijani economy against climate change. In this sector, which is of strategic importance for the country's economy, the dependency of

production on natural climatic conditions, low turnover speed of capital, etc. cause low savings rate. This ultimately limits the opportunities of agricultural producers to invest at their own expense, as well as to provide appropriate means from the financial markets.

Every year the natural disasters such as flood, hail, drought, frost, mass spread of dangerous pests, etc. significantly damage the agriculture. At the same time, the ineffectual arrangement of agricultural production activities has a serious negative impact on land, water resources and climate. For example, according to official statistics, while in 2017 the greenhouse gas emissions in Azerbaijan were in the equivalent of 3.1 million tons of CO₂ in industrial processes outside the energy sector, this figure in the agricultural sector was in the equivalent of 7.1 million tons of CO₂. Also, the deforestation of agricultural lands was accelerated as a result of complete non-compliance with agrotechnical rules, excessive use of chemicals, lack of economical and efficient use of irrigation water, unsatisfactory condition of part of irrigation and collector-drainage networks and other factors during agricultural activities. Desertification, salinization, soil erosion, the disappearance of a suitable layer of soil for ploughing, thinning of the natural grass cover of pastures, improper use of winter and summer pastures, low quality of pastures as a result of failure to take the necessary measures and such other reasons cause serious concern.

In this regard, the document identified sustainable progress in the agrarian sector through the introduction of advanced technologies to develop the agriculture adapted to climate change and improve the efficiency of water and land use in order to protect the environment, land and water resources as one of the strategic objectives. In this direction, environmental protection, sustainable use of natural resources and management of the effects of natural resources on agriculture have been set as one of the main strategic goals.

According to the strategic road map, measures in this area are intended to be implemented mainly in four priority directions. First, frameworks for mitigation of the negative impact of climate change and other natural disasters on agriculture will be worked out and an adequate adaptation plan will be developed. Within the framework of the priority of improving environmental protection frameworks in the agrarian sector, indicators meeting modern requirements for compliance of agricultural production with ecological norms will be developed, an assessment will be carried out, carbon gas emissions in the agricultural sector will be reduced, field protective forest strips will be established and other relevant measures will be taken. Within the framework of the priority of improving the sustainable use of agricultural lands and water resources, a mechanism will be developed to assess the environmental impact of the land change, management of pastures and the land reclamation situation of irrigated lands will be improved, re-salinization will be prevented and other problems preventing sustainable development will be eliminated. The last priority of this strategic goal will serve the development of eco-friendly agricultural production in the country.

In addition, the National Coordination Council on Sustainable Development (NCCSD) was established in Azerbaijan by the President's order dated October 6, 2016 to achieve sustainable development goals. At present, work is underway to prepare the National Action Plan on climate change mitigation and the National Action Plans on adaptation to reduce or minimize the impacts of climate change. At the same time, initiatives to harmonize national legislation with EU directives are continuing.

As the negative effects of climate change manifest itself as the issues covering various fields such as the reduction in biodiversity, decrease in the productivity of plant-growing and cattle-breeding, increase in risks for food insecurity, etc., the fight against climate change serves as the significant integral part of the policies of environment, economy, finance, energy, agriculture, health and tourism followed in the country. In other words, it is a issue that covers a wide range of areas, in which not only one organization is involved, but the coordinated and joint activities of several organizations that elaborate and implement environmental, economic, financial, energy, agriculture, health and tourism policies are required.

In this regard, as the main domestic institutions involved in activities related to climate change, we can mention the following:

Ministry of Ecology and Natural Resources. It is the main central executive body responsible for the policy and regulation of environmental protection, including the extraction and conservation, monitoring and regulation of Natural Resources in Azerbaijan and the Caspian Sea.

Ministry of Energy. It is the central executive body implementing the state policy and regulation in the field of fuel and energy.

Ministry of Agriculture. It is the central executive body implementing the state policy in the agrarian sector, including production and processing of agricultural products, providing necessary services to producers, veterinary, plant protection and quarantine, efficient use of lands. It is an institution that plays a key role in strengthening the climate resilience of agriculture.

Ministry of Transport, Communications and High Technologies. It is the central executive body that carries out state policy and regulation in the field of transport, including maritime transport and civil aviation, communications (telecommunications and postal), high technologies (Information Technologies, Microelectronics, nano, bio and other innovative scientific technologies). It participates in many climate-related projects in the transport sector.

Ministry of Economy. It is a central executive body carrying out state policy and regulation in the areas of development of economic policy, preparation of macroeconomic forecasts, providing the favorable conditions for economic development and growth, promotion of investment activity, development of entrepreneurship and industry, regulation of license and permit system, prevention of monopoly, elimination of unfair competition, protection of consumer rights, purchase of goods (works and services) at the expense of state funds, timely and complete collection of taxes and other mandatory payments specified by the law and which are included in the authorities of the ministry to the state budget, management and privatization of state property, arrangement of state management of lands, carrying out state register of real estate and unified state cadastre.

Ministry of Emergency Situations It is the central executive body that elaborates the policy and regulation of the civil defence, protection of the population and territories against natural (geophysical, geological, meteorological, hydrological, marine hydrological, wildfires, etc) and technogenic (fire, explosion, devastation of buildings and equipment, accidents caused by disposal of dangerous chemical, radioactive and biological wastes, accidents in power engineering systems, vital utility

systems, cleaning equipment, hydrodynamic equipment, facilities of oil and gas production and processing, main pipelines, and transport incidents, etc.) emergencies, prevention of emergencies, ensuring the fire security, safety of people in water bodies, navigation security of small vessels, technical security in industry and mining activities and construction security, and developing the funds of state material reserves and that performs the management, coordination and supervision in these fields, which arranges the flexible response in case of a high risk or occurrence of emergency situations and the protection of institutions, facilities and equipment of a strategic importance, which are exposed to technogenic and terror dangers.

State Agency on Alternative and Renewable Energy Sources. It is the central executive body carrying out state policy and regulation in the field of alternative and renewable energy and its efficient use, efficient arrangement of activities on alternative and renewable energy sources, coordination of activities and state control in this field in the country.

Azerbaijan Amelioration and Water Management Open Joint Stock Company. Its purpose is to provide public services in the field of land reclamation and water economy, to carry out water supply of lands, to organize the operation of state-owned land reclamation and irrigation systems, to carry out other works related to the development of this area.

State Oil Company. It is engaged in the research, exploration and development of oil and gas fields in the territory of Azerbaijan, extraction, processing and transportation of oil, gas and gas condensate, sale of oil and petrochemical products, gas in domestic and foreign markets, as well as supply of industry and population with natural gas in the territory of the country. It is involved in a number of mitigation projects in the oil and gas sector.

2. Climate related activities in Azerbaijan and their financing

Azerbaijan is highly sensitive to the effects of climate change. According to the latest assessment of the Notre Dame Global Adaptation Initiative³, Azerbaijan fell from 109th place in 1995 to 71th place in 2017 for its resistance to climate change impacts in the world, and ranked 6th among the countries of Central and Western Asia. According to the report, adaptation problems still exist. Azerbaijan is the 80th most sensitive and 81th most ready country.

Adverse effects of climate change manifest itself with an increase in the number of natural phenomena such as floods, deluges, droughts, heat stresses, etc. Although it pushes the adequate adaptation activities to forefront currently both mitigation and adaptation activities are underway.

Increasing the use of renewable energy sources and energy-efficient technologies to reduce the effects to climate change in Azerbaijan, stopping the use of fuel in thermal power plants and using natural gas instead, which is a cleaner fuel, expanding forest areas, reducing the volume of emissions of associated gases into the atmosphere and the conventional fuel unit used in the generation of electricity year by year and other actions have been taken.

The use of alternative energy in the country and the promotion of low-carbon activities in the commercial and residential sectors is a priority. The application of clean technologies to solve the existing ecological problems associated with the development of all sectors of the economy is allowed. In order to attract investments in the green economy, measures are being taken to make wide use of ecologically friendly alternative energy sources, reduce the greenhouse gases, effectively use energy in industry, transport, construction and other fields.

By applying environmentally friendly technologies in areas sensitive to climate change, a number of infrastructure projects - the construction of water reservoirs and power plants, forestry and water projects are being implemented.

In recent years, to strengthen control over dangerous hydrometeorological phenomena caused by the effects of climate changes, improve the forecast and early warning system the application of new technologies in the field of hydrometeorology has been performed and relevant telecommunication system has been built, the number of automated meteorological stations has reached 68.

At the same time, the monitoring system has been improved, new technologies have been introduced in the field of assessment and forecasting of processes going on in the environment, automatic stations have been built for continuous monitoring of atmospheric air pollution, online information on the status of atmospheric air has been provided to the public.

The measures taken to combat climate change in Azerbaijan were financed mainly from the state budget. Currently, the preparing and implementation of the state budget in Azerbaijan is performed on the basis of the budget classification, which is improved in accordance with the Government Financial Statistics Manual (GFSM 2014) of the International Monetary Fund (IMF). The functional

³ <https://gain.nd.edu/our-work/country-index/>

classification of budget expenditures currently applied has been improved in accordance with the UN classification of the functions of government (COFOG).

The lack of a separate cost item that combines in the current budget classification the allocated costs to combat climate change makes it difficult to record and analyze the allocated public expenditure in this direction. As mentioned, it is almost impossible in the GFS and COFOG system to incorporate these costs into a concrete cost item as the adaptation and mitigation measures cover many sectors such as agriculture, environment, protection and healthcare.

A large part of the expenditures related to climate change combating measures in Azerbaijan was allocated within the framework of the costs allocated for the protection of the environment. According to the State Statistics Committee⁴, in 2000-2018, the Environmental Protection expenses amounted to 2.7 billion manats, out of which only 10% or 271.1 million manats were directed to the protection of atmospheric air, capture and neutralization of air pollutants. In 2018, 21.2 million AZN was allocated to this direction from the state budget, which in general accounted for 6.7% of the expenses for Environmental Protection in the same year.

In 2018, 319.3 million Manats were allocated to environmental protection, which is 17.6 times more than in 2000. This amount includes all expenses associated with activities aimed at preventing, reducing and eliminating environmental pollution and any other damage to it. Environmental protection costs per thousand Manats of GDP in 2018 amounted to 10.8 Manats. In total, the costs for environmental protection in 2018 amounted to 0.4% of GDP (Table 1).

Table 1. Environmental protection expenditures

in thousand manats

Expenses	2000	2005	2010	2015	2016	2017	2018
Total	18188.4	30905.7	260673.8	136208.3	155817.2	189044.1	319256.1
Including:							
current expenditures for the implementation of environmental protection measures	11853.9	21395.8	52817.3	32258.4	26324.0	30525.3	47896.3
major overhaul of the main production funds for environmental protection	3129	1860.8	4793.6	1605.0	1043.4	5123.6	3395.1
preservation of reserves and national parks, protection and reproduction of wild animals and fish	301.4	1026.0	3902.7	5949.8	6777.6	6895.9	6807.5
operations of forestry	1181.4	3710.8	9153.0	11530.7	12126.2	13112.3	13245.0

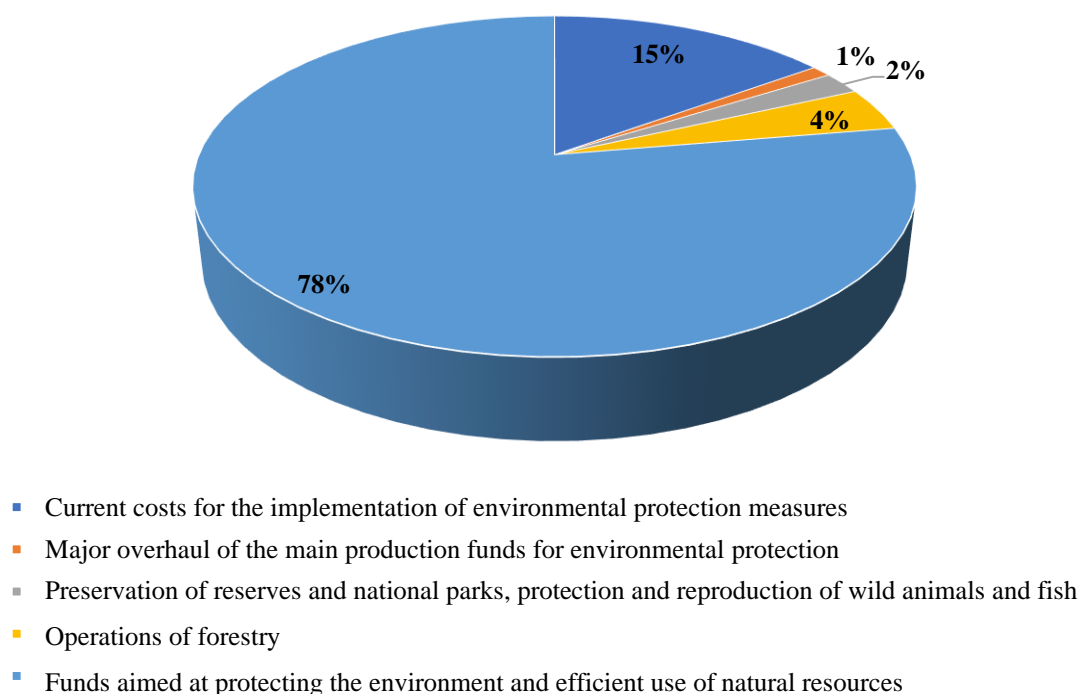
⁴ www.stat.gov.az

funds aimed at protecting the environment and efficient use of natural resources	1722.7	2912.3	190007.2	84864.4	109546.0	133387.0	247912.2
Expenses per thousand manats of GDP, in manats		2.47	9.74	4.52	5.34	6.47	10.77

Source: State Statistical Committee

78% of these funds are directed to environmental protection and efficient use of natural resources. Capital expenditures increased by approximately 144 times compared to 2000 and reached 248.0 million Manats from 1.7 million Manats. (Figure 1). The expenditures allocated for the construction, reconstruction and modernization of the facilities (including the expences of modernization carried out during the major overhaul of the facilities) are included in the expences directed to the main capital for the protection of the environment and efficient use of natural resources, which lead to an increase in the initial expences of the facility and refer to additional capitals of the organization (purchase of machinery, equipment, vehicles, etc.).

Figure 1. Structure of the expenditures for the environmental protection in Azerbaijan in 2018, in percentages



Source: State Statistical Committee

In 2018 233.3 million AZN or 94.1% of the funds directed to the main capital for the environmental protection and efficient use of natural resources was made up by the capital expenditures directed to the protection and efficient use of water resources, 13.5 million AZN or 5.4% by the capital expenditures directed to the protection of atmospheric air, 1.0 million AZN or 0.4% by the capital expenditures directed to the protection and efficient use of lands (Table 2 and Figure 2).

As can be seen from Figure 1, 15% of the costs incurred in environmental protection in 2018 were current costs. This includes the costs of re-cultivation of spoiled lands, maintenance of beds of small rivers, maintenance of water protection zones in a defined manner, control over the quality of water sources and atmospheric air, and implementation of current nature protection measures. The costs of subsequent cleaning (neutralization) of reporting facilities, disposal (burying) of polluted water and transfer of waste to other organizations are also included in the volume of current environmental protection costs.

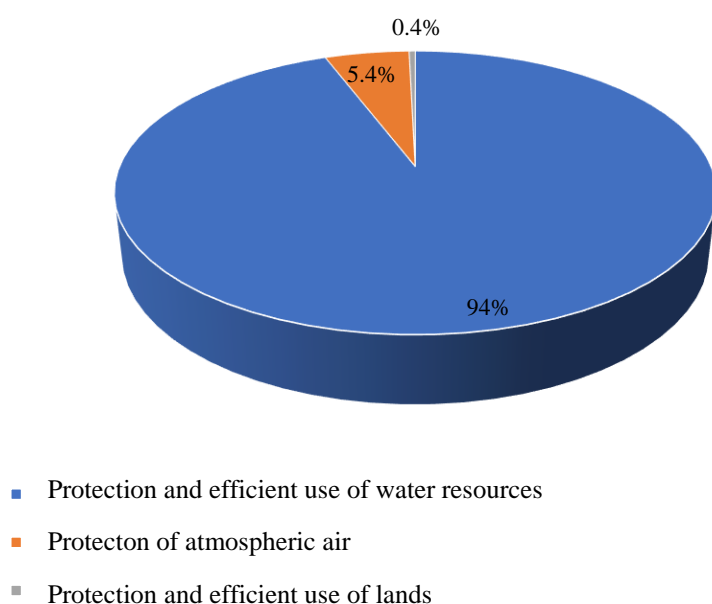
Table 2. Capital expenditures allocated for protecting the environment and efficient use of natural resources

in thousand manats

Expenses	2000	2005	2010	2015	2016	2017	2018
Total	1722.7	2912.3	190007.2	84864.4	109546.0	133387.0	247912.2
Including:							
protection and efficient use of water resources	603.6	1309.8	134936.9	84474.4	108996.0	117387.0	233348.1
protection of atmospheric air	825.9	1503.9	-	-	-	16000.0	13498.5
protection and efficient use of lands	293.2	98.6	55070.3	390.0	550.0	-	1065.6

Source: State Statistical Committee

Figure 3. Structure of the capital expenditures for the environmental protection in Azerbaijan in 2018



Source: State Statistical Committee

In comparison with 2000, the current costs for the implementation of environmental protection measures increased by 4 times, reaching to 47.9 million AZN. The highest growth rate (96 times) compared to 2000 was observed in the growth of current costs for the protection of the environment from production and consumption wastes (Table 3.).

Table 3. Current costs for the implementation of environmental protection measures

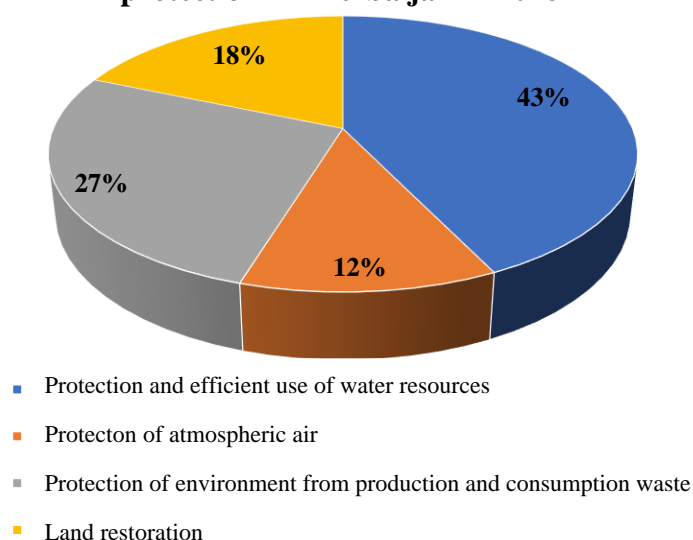
In thousand manats

Expenses	2000	2005	2010	2015	2016	2017	2018
Total	11853.9	21395.8	52817.3	32258.4	26324.0	30525.3	47896.3
Including:							
protection and efficient use of water resources	10508.5	17899.3	39226.5	17276.2	15274.8	16016.7	20518.8
protection of atmospheric air	1040.5	2100.3	1049.6	2518.6	2419.4	3708.1	5694.7
protection of environment from production and consumption waste	132.9	971.2	4054.2	7455.8	6173.0	6938.6	12773.4
restoration of soil	172.0	425.0	8487.0	5007.8	2456.8	3861.9	8909.4

Source: State Statistical Committee

The analysis of the structure of the current expenditures on environmental protection in 2018 shows that the costs for the protection and efficient use of water resources accounted for 43% of the current expenditures on this direction, while the expenditure on the protection of the environment from production and consumption wastes, soil restoration and atmospheric air protection were 27%, 18% and 12% respectively (Figure 3).

Figure 3. Structure of the current expenditures for the environmental protection in Azerbaijan in 2018



Source: State Statistical Committee

In 2018, 3.4 million AZN was allocated for the overhaul of the main production funds for environmental protection, out of which 58.8% or 2.0 million AZN was directed to the capture and neutralization of atmospheric air pollutants. The costs incurred for the overhaul of the main production funds for environmental protection reflect the costs for the overhaul of the buildings, plants and equipment for the treatment and disposal of waste, capture and neutralization of atmospheric pollutants, and cleaning of wastewater and efficient use of water resources.

The capital repair costs for wastewater treatment and efficient use of water resources amounted to 1.3 million AZN, which is 3.3 times less than in 2017. The capital repair costs allocated for the arrangement and neutralization of waste amounted to 35.0 thousand AZN (Table 4).

Table 4. Costs for the major overhaul of the main production funds for environmental protection

in thousand Manats

Expenses	2000	2005	2010	2015	2016	2017	2018
Total	3129	1860.8	4793.6	1605.0	1043.4	5123.6	3395.1
Including:							
wastewater treatment and efficient use of water resources	2155.2	1525.3	1625.5	1115.4	624.5	4281.2	1315.4
capture and neutralization of atmospheric pollutants	973.8	335.5	3047.6	160.1	352.8	773.7	2044.6
waste arrangement and neutralization	-	-	120.5	329.5	66.1	68.7	35.1

Source: State Statistical Committee

In addition, the expansion of relations with international organizations and donor countries is of particular importance in the fight against climate change. In this direction, there is ongoing cooperations with the UN Development and Environment Programmes, UN Industrial Development Organization, North Atlantic Treaty Organization (NATO), Global Environment Fund, Organization of Economic Cooperation and Development, Economic Cooperation Organization, World Bank Group, Asian Development Bank, World Wildlife Fund, etc. At the same time, bilateral cooperations with developed countries are established on the basis of relevant agreements.

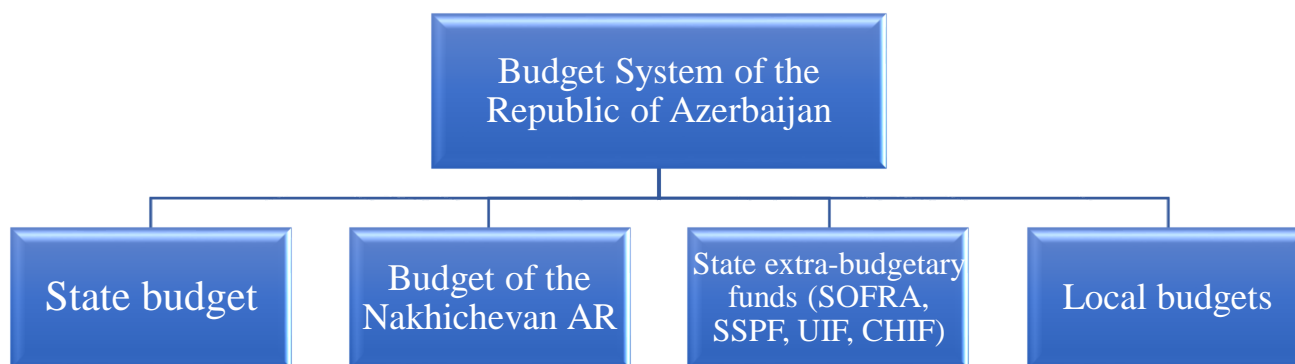
With the support and participation of foreign partners, a number of projects have been implemented aimed at both mitigation and adaptation. The projects implemented in the recent years and ongoing projects with the donor organizations can include the "Integrating climate change risk management by vulnerable communities in the Greater Caucasus region of Azerbaijan" project implemented by the Global Environment Facility, UN Development Programme and Ministry of Ecology and Natural Resources, "Nationally Appropriate Mitigation Actions (NAMA) for Low-Carbon End-Use Sectors in Azerbaijan" project implemented by the Global Environment Facility, UN Development Programme and Ministry of Ecology and Natural Resources, "Support to the Preparation of the Fourth National Communication and the Second Biennial Reporting under the United Nations Framework Convention

on Climate Change" project implemented by the Global Environment Facility, UN Development Programme and Ministry of Ecology and Natural Resources, and "Green Climate Fund (GCF) Readiness Program" implemented by the Green Climate Fund, UN Development Programme and Ministry of Ecology and Natural Resources, which is the appointed national coordinator.

3. Public finance management and budget system in Azerbaijan

The budget system in the Republic of Azerbaijan consists of the state budget, the budget of the Autonomous Republic of Nakhichevan, state extra-budgetary funds (budgets of the State Oil Fund, State Social Protection Fund, Unemployment Insurance Fund and Compulsory Health Insurance Fund) and local budgets (Figure 4.). The organizational, legal and economic basis of the organization of the budget system in Azerbaijan, compilation, approval, execution and supervision of the execution of budgets, as well as the basic principles of the interaction of state budget and extra-budgetary state funds, local budgets are defined by the Law on the budget system. In addition, the Rules of compilation and execution of the state budget were approved by the decision of the Cabinet of Ministers No. 75 dated May 24, 2004. These rules define the principles of the organizational, legal and economic basis for the compilation and execution of the state budget.

Figure 4. Budget system of the Republic of Azerbaijan



According to the Law on the budget system, the purpose of the state budget is to provide the solution of the economic, social and other strategic programs and problems of the country, ensure the collection and use of financial resources in accordance with the legislation for the implementation of the functions of the state.

The state budget of the Republic of Azerbaijan consists of centralized revenues and expenses, local revenues and expenses. A single budget classification is applied in the Republic of Azerbaijan in order to provide a comparison of budgets and budgetary organizations included in the budget system of the Republic of Azerbaijan, as well as financial operations on non-budgetary state funds (including extra-budgetary operations of budgetary organizations).

A single budget classification is applied in the Republic of Azerbaijan in order to provide a comparison of budgets and budgetary organizations included in the budget system of the Republic of Azerbaijan, as well as financial operations on non-budgetary state funds (including extra-budgetary operations of budgetary organizations). The budget classification consists of the classification of budget revenues, and the classification of budget expenditures on the basis of functional, economic, organizational and other principles. The composition of the budget classification on revenues, and its functional, economic, organizational and otherwise composition is determined by legislation. The budget classification consists of the classification of budget revenues, and the classification of budget expenditures on the basis of functional, economic, organizational and other principles.

The drafting of the state budget starts 11 months before the next budget year and covers the period until the budget project is submitted to the Milli Majlis of the Republic of Azerbaijan. The draft state budget for the next budget year is prepared on the basis of macroeconomic forecasts of the country's economic and social development, targeted programs, evaluation of the results of financial and economic activity of all enterprises regardless of the spheres of economy, administrative regions and types of ownership. The drafting of the state budget starts with the decision of the relevant executive authority, which is published in the press during the third decade of January. According to this decision, the country's medium-term economic and social development program developed by the relevant executive authority is being clarified by the end of February.

In accordance with the clarified medium-term economic and social development program, the initial medium-term budget forecast (revenues, expenses, cuts and financing) and investment program for the next year are drawn up in March of the current year. The initial draft of the state budget and investment program is prepared until April 15 of the current year and submitted to the relevant executive authority for consideration along with the main directions of the budget-tax policy, upper limit of revenues and expenses at the level of sections of the budget classification, public debts, priority expenses, and the budget forecast for the following budget year and consolidated budget forecast for subsequent three years.

Until May 1, the Ministry of Finance prepares a letter of instruction on the draft state budget for the next year and compilation of consolidated budget indicators for the next three years and sends it to the organizations involved in the compilation of the budget. This guide, along with relevant information, provides information on the analysis (evaluation) of revenues and expenses, including the upper limit of expenses for organizations and each section, and the norms and forms approved on current expenses, supporting documents for submission of detailed budget proposal to the relevant executive authority.

When determining the financing of budgetary organizations, their extra-budgetary benefits are taken into account. Bodies performing the execution of state budget revenues and organizations financed from the budget submit the budget drafted in accordance with the instructions to the relevant executive authorities until July 1 of current year.

The draft of the state budget for the next budget year and the indicators of the consolidated budget for the next three years will be submitted to the Cabinet of Ministers by the Ministry of Finance and until September 10

the Cabinet of Ministers forwards it to the President. The draft law on the state budget for the next budget year, together with other documents attached to it, shall be submitted to the discussion and approval by the Milli Majlis of the Republic of Azerbaijan in accordance with paragraph 2 of Article 109 of the Constitution of the Republic of Azerbaijan no later than October 15 of the current year.

Strengthening fiscal stability and adoption of sustainable monetary policy are defined as one of the main strategic goals set forth, and the implementation of the Medium Term Expenditure Framework (MTEF) in the direction and ensuring the transition to the result-based budget framework are defined as the main actions in the “Strategic Roadmap on the national economy perspective of the Republic of

Azerbaijan” approved by Decree No. 1138 of the President of the Republic of Azerbaijan dated December 6, 2016.

In order to achieve this strategic goal, a number of important and large-scale measures have been taken to improve the management of public finances in our country in recent years. The regulative base of the budget rule, which defines the framework consisting of macroeconomic and budgetary indicators was developed and its application started for the re-implementation of the budget policy providing medium and long-term macroeconomic stability, financial and debt discipline.

At the same time, the Rules for the preparation of the Medium Term Expenditure Framework was pursuant to Decree No. 235 by the President of the Republic of Azerbaijan dated August 24, 2018 for the purpose of improving the efficiency and addressability of the public expenditures and arranging the transition to the result-oriented budget framework. Along with this rule, another important document, which forms the methodological basis of the MTEF preparation process - the Rules for the preparation of Sector Strategic Plans - has been approved.

According to Decree by the President of the Republic of Azerbaijan dated February 4, 2019, it is planned to initially apply MTEF on 3 sectors (education, agriculture and environmental protection) at the pilot stage in parallel with the process of compiling the state budget project for 2021 and the budget calendar.

Currently, as the development of the MTEF is not integrated into the Law on the budget system the preparation of the traditional annual budget and the development of the MTEF are performed in parallel in 2020. Upon completion of the pilot stage, the MTEF process will be fully intergrated to the existing budget system and budget calendar and relevant amendments will be made to the Law.

4. Relevant units and staff of the Ministry of Finance of the Republic of Azerbaijan involved in climate-related financing

The mitigation and adaptation measures implemented to combat climate change in Azerbaijan are being financed mainly from the state budget. In this regard, the Ministry of Finance plays an important role in climate-related financing, as the main central executive body responsible for the preparation, execution and control of the state budget.

The Ministry of Finance is the central executive body implementing the budget-tax policy in the Republic of Azerbaijan and arranging the management of public finance. In addition to the preparation and implementation of the state budget, the main powers of the Ministry of Finance include the management of public debt and obligations, implementation of state regulation in the areas of organization and implementation of accounting, and performing the state control over the use of state budget funds.

According to the regulations approved pursuant to Decree No. 48 by the President of the Republic of Azerbaijan dated February 9, 2009, the Ministry of Finance participates in the development of investment programs of the state, in the preparation and implementation of state investment policy, development concepts and strategies of state programs in the manner prescribed by the legislation, ensures the implementation of necessary measures for the involvement of external and internal loans into the economy of the country, and performs the legal regulation of other matters assigned to the Ministry upon the legislation and Regulations in the fields of budget system, tax, state treasury, public financial control, audit, arrangement and implementation of accounting.

The Regulations assigned the Ministry of Finance to be involved, within the limits of its power, in the negotiations for involving investments into the economy and receiving loans (including loans with state guarantees) grants, financial and technical assistances, as well as the negotiations for investment projects, and in the economic expertise of the investment projects (proposals) for the purpose of using the loans granted by international financial and economic organizations, foreign states and credit organizations in case of borrowing loans, including of the agreements or proposals for the projects of loans, grants and financial (technical) assistances as specified by the legislation.

The structure of the ministry consists of the Central Administration, institutions included in the structure (State Treasury Agency under the Ministry of Finance, Agency for Management of Public Debts and Financial Obligations, State Financial Control Service and local financial bodies) and the bodies subordinate to the ministry (“Computing Center” LLC, Financial Research and Education Center, “Finance and Accounting Journal Editorial Board” LLC and “Baku Convention Center” LLC) (Figures 5 and 6).

All these units and subordinate organizations together form the unified system of the ministry. The ministry carries out its activities directly through these organizations and units.

The ministry is headed by the minister appointed and dismissed by the President of the Republic of Azerbaijan, who is personally responsible for the fulfillment of the duties entrusted to the Ministry and

execution of his rights. The minister of Finance has one first deputy and three deputies appointed and dismissed by the President of the Republic of Azerbaijan (currently two deputy ministers are vacant).

As mentioned above, a number of important steps have been taken to improve the management of public finances in recent years. In order to reduce the procyclicality of fiscal policy and to ensure financial stability, the budget rule has started to be introduced. Since 2019, the upper limits of the consolidated budget expenditures, expendable oil revenues and the transfer from the State Oil Fund to the state budget are determined in accordance with the budget rule.

In addition, it is planned to introduce the Medium-Term Expenditure Framework for 3 pilot sectors identified in 2020. Relevant measures are being taken by the Ministry of Finance of the Republic of Azerbaijan in order to ensure the implementation of Decree by the President of the Republic of Azerbaijan dated August 24, 2018 on the Rules for the development of the Medium Term Expenditure Framework and of Decree No. 513 of February 4, 2019 on amendments to this Decree. In this direction, the **MTEF Development Center** was established within the Administration of the Ministry and the Center was assigned the strategic planning of the state budget, and the arrangement of the relevant instruction, coordination and generalization of the introduction of the MTEF and transition to the framework of result-oriented budget compilation.

The areas of activities of the MTEEF Development Center are as follows:

- strategic planning of the state budget;
- preparation of MTEF document and Medium-Term Budget Policy document, including the development of macro-fiscal framework;
- monitoring and evaluation of the execution of budget expenditures upon target and result indicators;
- arrangement of the transition to result-oriented budget planning;
- development and improvement of the state budget-tax policy with the participation of relevant departments

The center consists of 18 staff units. The areas of activities of the sectors included in the structure and structure of the center are given in Figure 7.

Initially, one of the pilot sectors is the Environmental Protection sector. It is planned to introduce the MTEF in this sector in parallel with the process of drafting the state budget for 2021. The instructions on the development of MTEF for the 3 pilot sections of the functional classification of state budget expenditures have already been prepared by the Ministry of Finance and sent to budget organizations.

Moreover, relevant measures are being taken to establish an Integrated Information System of Integrated Budget Management in the direction of the facilitation of the exchange of information on the preparation and implementation of the budget and effective implementation of the regulation. The tender procedure for the purchase of software has already been completed and a procurement agreement has been concluded with the winning company. Currently, the installation of the system is underway.

Figure 5. Structure of the Ministry of Finance

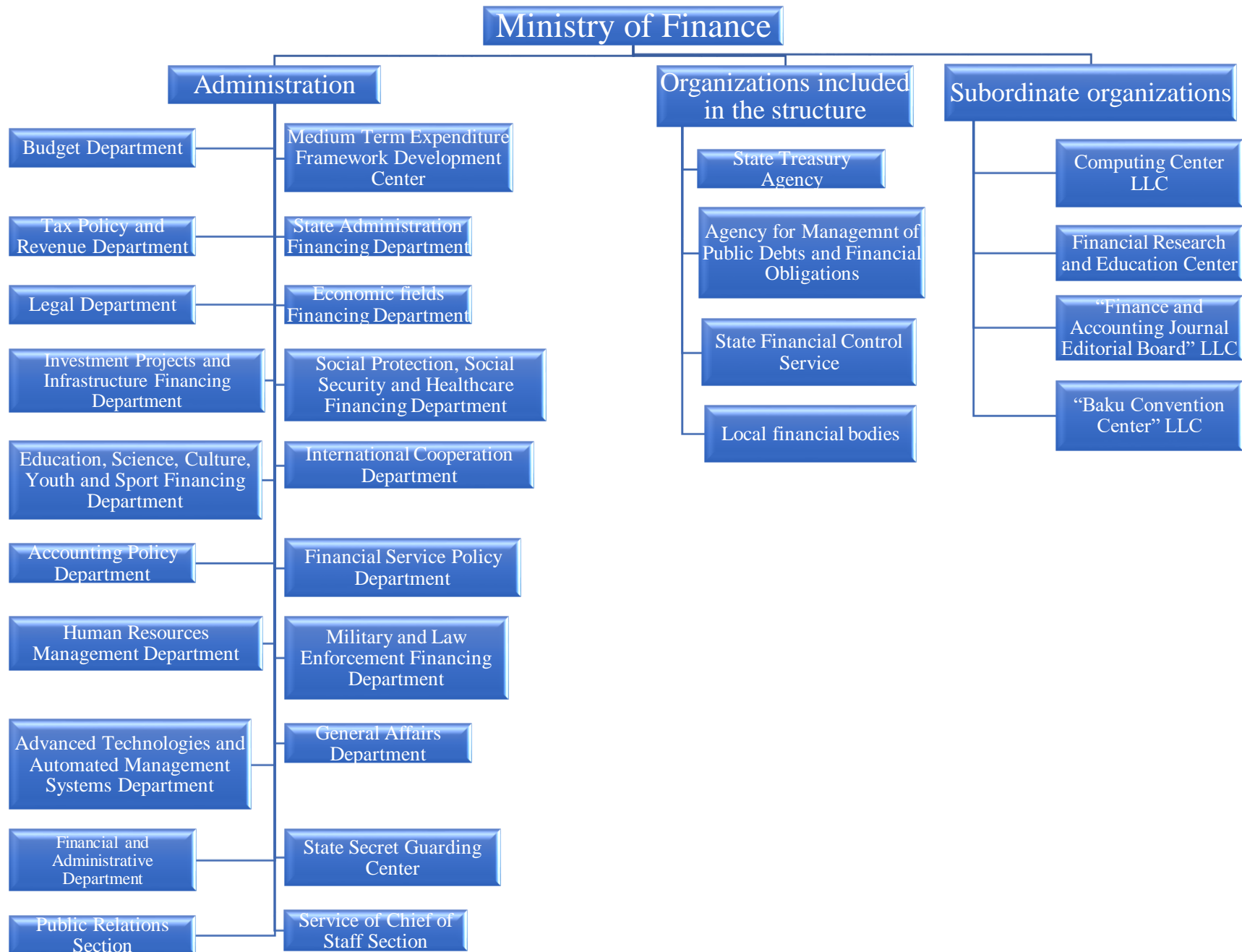
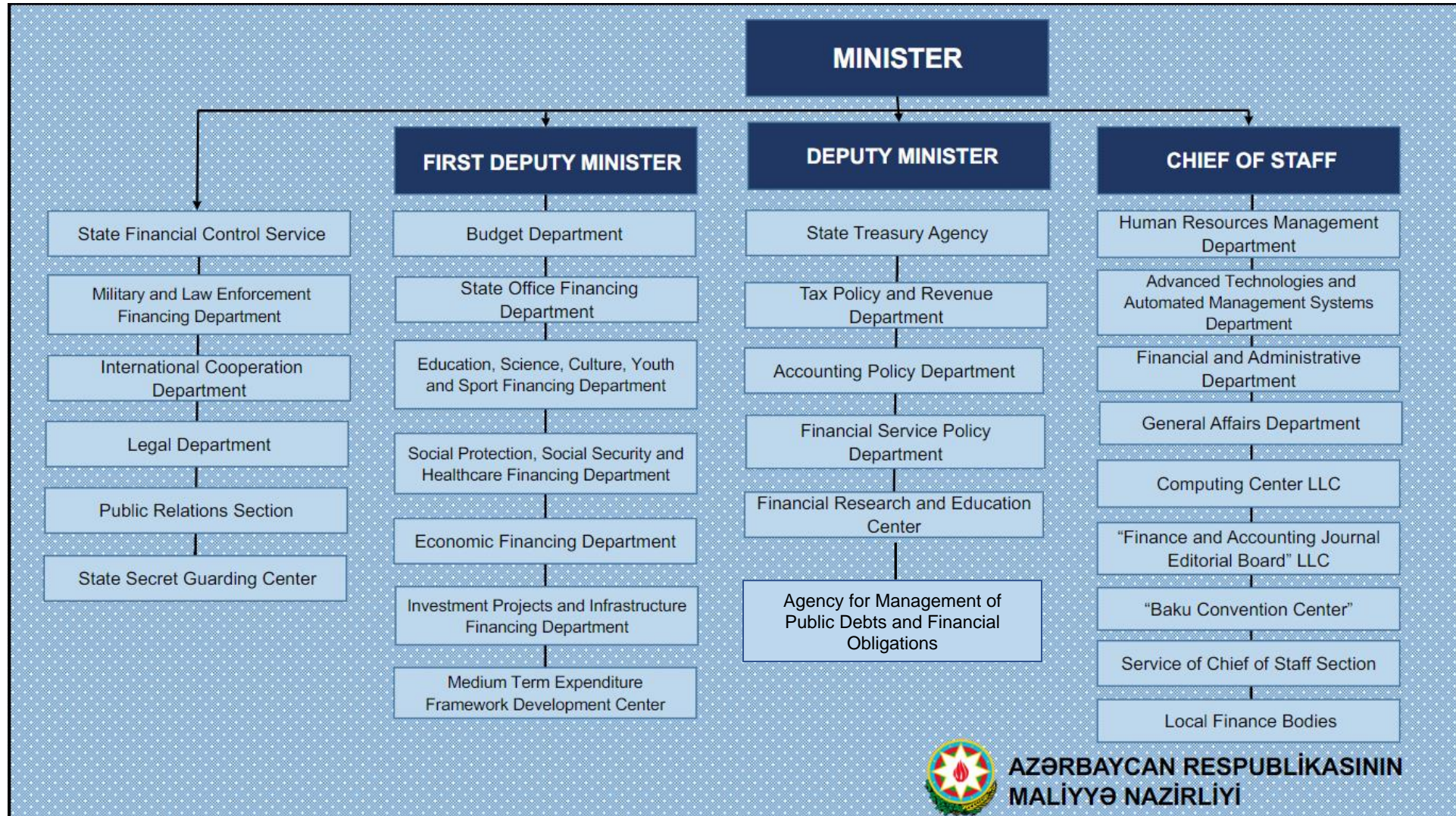


Figure 6. Structure of the Ministry of Finance

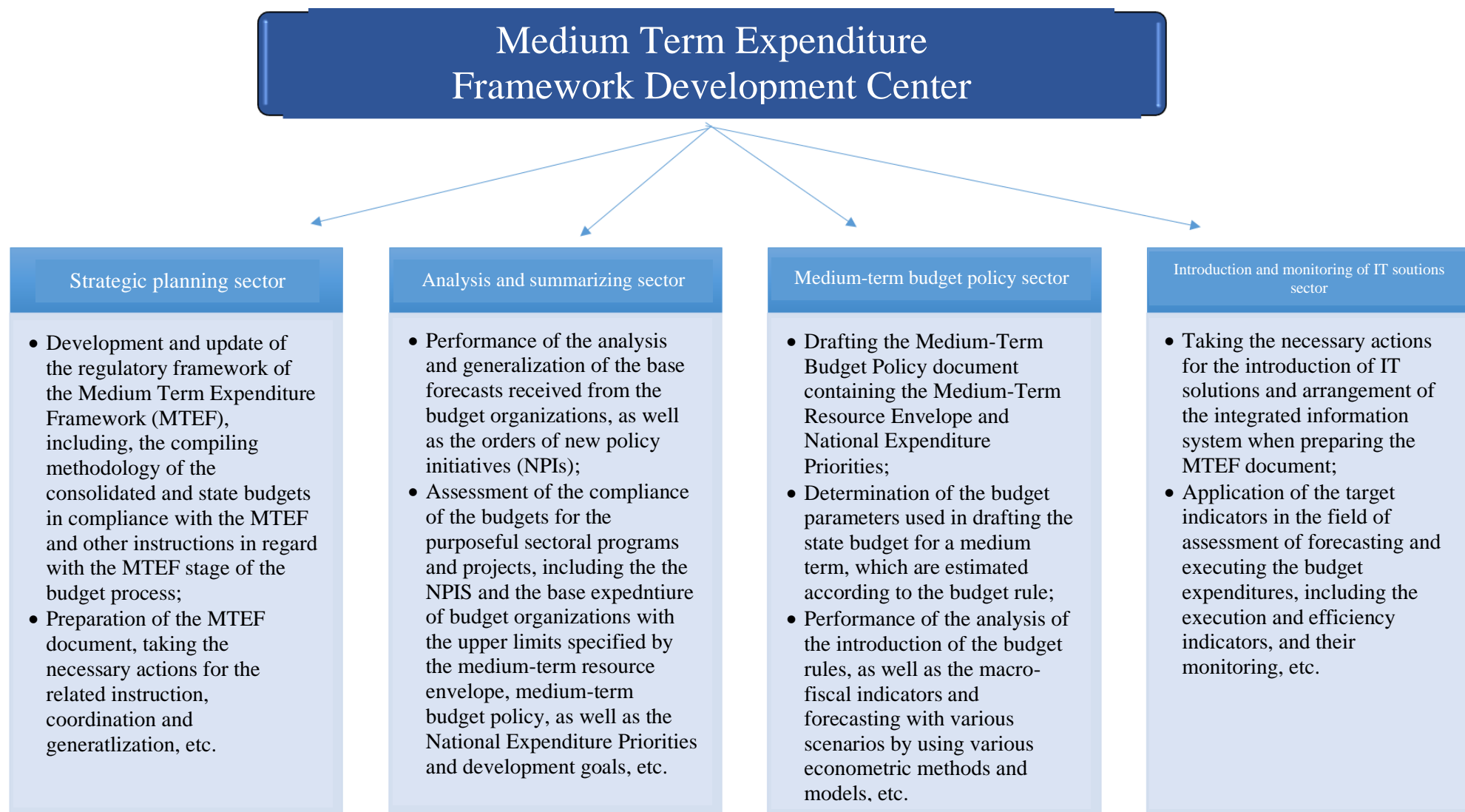


The implementation of the MTEF is the main component of the transition to the result-oriented budget framework. In simple terms, the Medium Term Expenditure Framework is the planning and distribution of the financial resources of the state, taking into account the strategic goals, programs and expected results of the implementation of these goals and programs. In general, international practice shows that it is easier to record, monitor and assess the costs associated with climate change in countries where MTEF and program-based budgets are applied.

The structural unit of the Ministry of Finance, which is directly responsible for the financing of environmental costs, preparation and implementation of the budget project in this direction is the **Economic Financing Department**. The department is responsible for carrying out a number of other tasks within the limits of its power, as well as for the preparation of budget projects in the Environmental Protection section of the functional classification of budget expenditures, financing of activities of the ministries of Ecology and Natural Resources and Agriculture in the field of environmental protection and other fields. The department consists of 3 sectors:

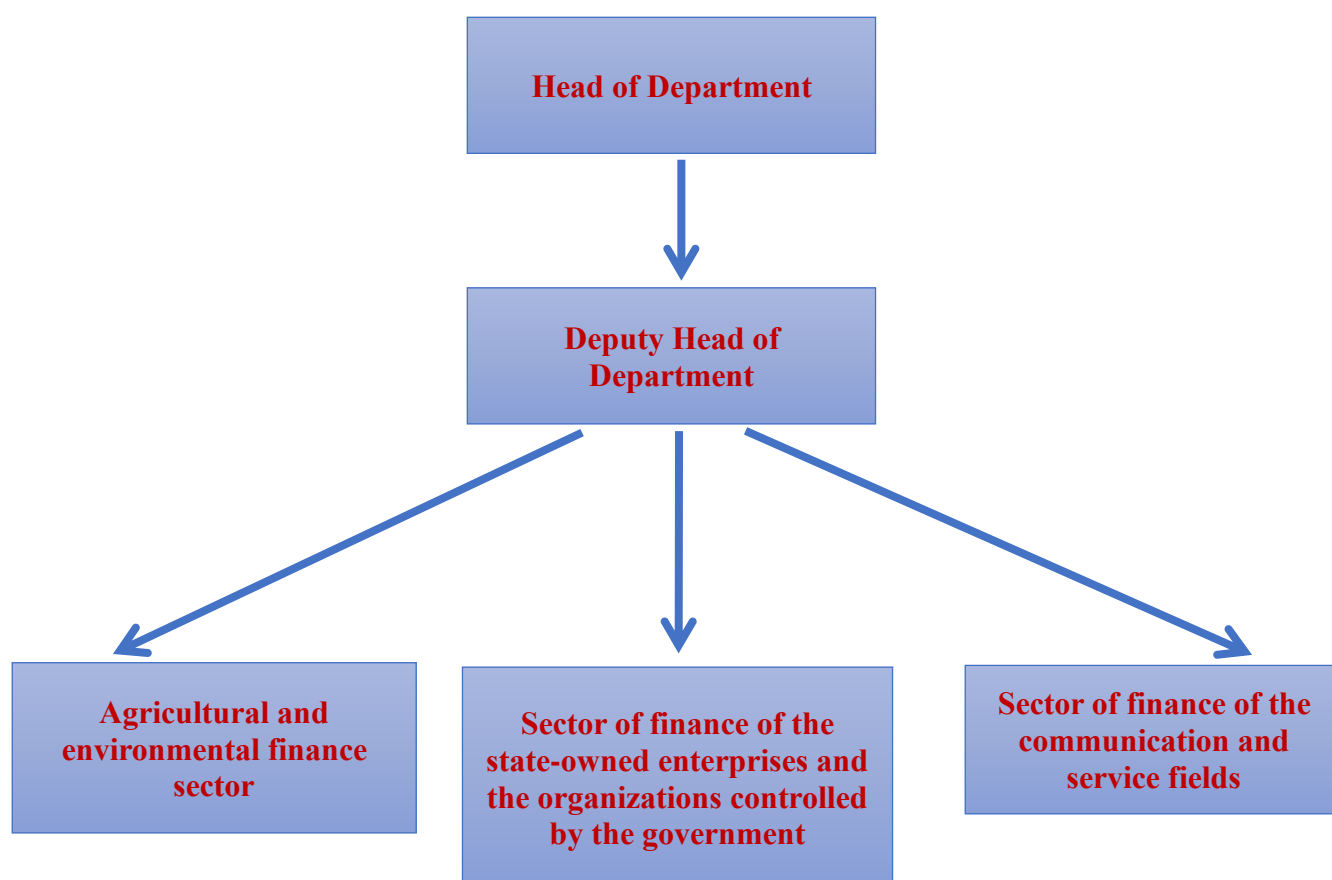
1. Agricultural and environmental finance sector;
2. Sector of finance of the state-owned enterprises and the organizations controlled by the government;
3. Sector of finance of the communication and service fields.

Figure 7. Structure of the Medium Term Expenditure Framework Development Center of the Ministry of Finance



12 employees work in the Economic Financing Department of the Ministry of Finance. The structure of the department is given in Figure 8.

Figure 8. Structure of the Economic Financing Department of the Ministry of Finance



Agricultural and environmental finance sector of the department consists of 3 staff units. This sector participates in the development of agrarian and environmental state programs and projects, performs their financial and economic expertise and arranges the management of public finances in these areas.

Furthermore, part of the financing related to the climate allocated from the state budget includes investment-oriented costs. **The Investment Projects and Infrastructure Financing Department** of the Ministry of Finance is a structural unit that arranges the development and implementation of financial policy in the field of investment projects and infrastructure finance, and preparation and management of budget draft in this field. The department has 13 employees and consists of 3 sectors.

The main areas of activity of the department are:

- participates in the development and implementation of state investment policy, as well as development programs and strategy documents in accordance with the legislation;
- prepares opinions and indicators on the proposals put forward during the determination and compilation on the upper limit of the investment expenditure division of the state budget, and amendments to this division, as well as participates, within its limits of power, in the

determination and management of financial guarantees of investment projects implemented at the expense of the state budget;

- Participates, within its limits of power, in the financial management of investment projects implemented jointly with other countries on the basis of loans and subsidies involved by the government of the Republic of Azerbaijan, as well as bilateral and multilateral cooperation agreements;
- Participates, within its limits of power, in the financial management of investment projects financed by the funds allocated from the state budget to the state-owned legal entities, including loans and subsidies received on the basis of state guarantees;
- Participates, within its limits of power, in the compilation of the upper limit of the relevant cost items of the state budget for the restoration of social and physical infrastructure that has become useless due to the accidents and other circumstances and the elimination of the results of emergency situations, and in the determination of the financial support to the expenditures;
- performs the management of the budget, loans, grants and other financial resources allocated for the financing of state investment projects within the limits of power of the department;
- provides an opinion on the proposed projects and initiatives based on the principles of Public-Private Partnership (PPP), as well as their financial support within the limits of power of the department, perform its expertise and take measures to allocate financial resources during the implementation of these projects, etc.

The International Cooperation Department and Agency for Management of Public Debts and Financial Obligations are also involved in the financial expertise of climate-related projects. The **International Cooperation Department** is the structural unit of the Administration of the Ministry of Finance of the Republic of Azerbaijan, which prepares proposals on financing of international activities of the Republic of Azerbaijan and allocation of funds specified in relevant articles of the state budget in order to pay the required expenses related to it. The department takes part, within its limits of power, in drafting and determining the conditions of international and bilateral agreements by the Government of Azerbaijan. It also participates, within its limits of power, in the implementation of relevant measures within the framework of programs and projects jointly developed with international organizations, in the implementation of measures to be implemented on the basis of technical assistance or other purposeful financial resources allocated within the framework of those programs and projects. The department also provides proposals on the use of purposeful financial resources and financial assistance allocated to the government by foreign states and international organizations. Review of, providing the relevant opinion on and determining the financial terms of of the projects to be implemented on the basis of the technical assistance and grants by donor organizations, as well as with the share participation of the government of Azerbaijan, which are developed by international organizations are also included in the authorities of the International Cooperation Department.

The International Cooperation Department consists of 3 sectors: sector of cooperation with international organizations, sector of bilateral cooperation and sector of finance of representative offices abroad. There are 14 employees in the department.

The Agency for the Management of Public Debts and Financial Obligations under the Ministry of Finance of the Republic of Azerbaijan is an organization included in the structure of the Ministry of Finance of the Republic of Azerbaijan, which ensures that the state procurements are carried out,

performs the management of the state debt and financial obligations and the re-financing of the state debt, manages or submits for management the unencumbered balance in the single treasury account and the resources of the Fund for Ensuring State Debt Liabilities and Guarantees, performs the registry of the state debt and guarantees, debts of foreign states to the Republic of Azerbaijan, including the emission of papers of governmental importance. The role of the agency in climate financing is that if projects are implemented through external loans these projects are reviewed by the agency.

Table 4. Structural units of the Ministry of Finance involved in climate-related financing and their role

Name of unit	Role in climate-related financing	Number of staff involved in climate-related financing issues
Economic Financing Department	Participation in the development of state programs and projects in the field of environment, ensuring the implementation of their financial and economic expertise, and drafting the budget on Environmental Protection section of cost items related to these areas, including the functional classification of budget expenditures and the management of public finances in these areas	3
The Investment Projects and Infrastructure Financing Department	Participation in the development and financing, as well as monitoring and evaluation of investment and infrastructure projects on mitigation and adaptation	3
Medium-Term Expenditure Framework Development Center	Introduction of the Medium Term Expenditure Framework in Azerbaijan (MTEF) and arrangement of transition to the result-oriented budget compilation framework, performance of the relevant instruction and coordination in this field, development of the MTEF on the environment protection sector which is one of the three pilot sectors identified since 2020, implementation of preparatory work in regard with the application of the program-based budget classification.	8
International Cooperation Department	Review of the proposed climate-related projects together with international organizations or at the expense of grants and technical assistance from donor organizations and prepare feedback and proposals on project documents, coordination of international cooperation in the field of climate financing.	4
Agency for the Management of Public Debts and Financial Obligations under the Ministry of Finance	The Agency reviews the projects to be implemented at the expense of loans involved from abroad.	4

5. SWOT analysis

<p>STRENGTHS</p> <ul style="list-style-type: none"> - modern material and technical base; - staff with many years of experience in the field of state financial management and budget planning; - close cooperation with international and regional financial institutions. 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> - poor integration of funding of measures with climate change into budget processes; - current budget classification does not allow to determine how much is allocated to combat climate change; - financing of climate change prevention measures rather through state budget funds, poor cooperation with funds operating in this area; - unsatisfactory awareness of the staff on the rules for applying to international funds.
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> - sufficient financial resources; - introduction of a new budget rule; - The implementation of the Medium-Term Expenditure Framework and the beginning of the implementation of measures related to the transition to the result based budget planning will create an opportunity to develop the climate change Financing Framework and integrate it into the budget process; - Introduction of IT solutions and starting the establishment of an integrated budget information management system; - opportunities to receive technical and financial support from international organizations and funds operating in the fight against climate change, including developed countries. 	<p>THREATS</p> <ul style="list-style-type: none"> - state budget revenues largely consisting of oil revenues causes the budget policy to be susceptible to oil prices and poses a risk to fiscal sustainability. Since the main source of funding for climate change measures is the state budget, the costs directed to this direction are sensitive to fluctuations in oil prices; - The rapid spread of the new coronavirus (COVID-19) infection declared a pandemic by the World Health Organization (WHO) has led to an increase in negative trends in the global economy and a decrease in the aggregate demand for oil. In response, the failure to reach an agreement to reduce oil production at the Vienna meeting of OPEC+ countries prompted a sharp drop in oil prices in the world market in March this year. If this situation continues for a long time this policy can lead to difficulties for the public finances and the exclusion of many costs.

Conclusion and Proposals

Azerbaijan is a country highly vulnerable to the effects of climate change. According to the latest assessment of the Notre Dame Global Adaptation Initiative (ND-GAIN), Azerbaijan fell from 109th place in the world in 1995 to 71st place in 2017 in terms of resilience to the effects of climate change, and 6th place among Central and West Asian countries. The low vulnerability score and high readiness score of Azerbaijan places it in the lower-right quadrant of the ND-GAIN Matrix. According to the report, adaptation challenges still exist, but Azerbaijan is well positioned to adapt. Azerbaijan is the 80th least vulnerable country and the 81st most ready country.

Key climate risks include floods, increasing annual average temperature, rise in sea level, growing water deficit, air pollution, land degradation. Main climate change vulnerable sectors in the country are agriculture, human health, water resources, forestry, tourism. As a contribution to global climate change prevention initiatives, Azerbaijan aims at a 35% reduction in greenhouse gas emissions by 2030 as compared to the 1990 base year.

The first paragraph of the report analyzed the legislative and institutional framework of the measures to combat with climate change in Azerbaijan. Although Azerbaijan does not yet have a specific climate change strategy, in recent years Azerbaijan has taken steps to improve its legislation and bring existing regulations into line with international treaties to which the country is a party, as well as EU law. To date, the Republic of Azerbaijan has acceded to 21 conventions and signed relevant protocols. A number of new laws have been adopted to improve environmental legislation, and amendments have been made to existing ones. The legislation mainly covers the areas of atmospheric air, water resources, household and industrial wastes, water bioresources, and biodiversity protection.

It should be noted that the financial mechanisms for environmental protection in the country are regulated by the "Rules on payments for natural resources and rules on imposing and using of the payments for harmful substances released into the environment" which was approved by the Cabinet of Ministers of the Republic of Azerbaijan on March 3, 1992 No. 122 , as well as are regulated by the Law on Environmental Protection.

The first paragraph also describes the main documents, government programs and development concepts defining strategies for mitigation and adaptation measures in the country, and the main activities of government agencies involved in climate related activities.

The second paragraph examined climate related activities and their financing in Azerbaijan. The negative effects of climate change are reflected in the increase of the number of natural disasters, such as rising annual average temperatures, floods, droughts, heat stresses, water shortages and rising sea levels. Although this highlights adequate adaptation measures, both mitigation and adaptation measures are currently underway.

The measures taken to combat climate change in Azerbaijan were mainly funded by the state budget. At present, the preparation and execution of the state budget in Azerbaijan is based on the improved unified budget classification in accordance with the International Monetary Fund's (IMF) State Financial Statistics Instruction (GFSM 2014). The current functional classification of budget

expenditures has been improved in accordance with the UN Classification of Functions of Public Administration Bodies (COFOG).

The lack of a separate item of expenditure on measures and activities for combating climate change in the current budget classification makes it difficult to record and analyze public expenditures in this area. As noted, adaptation and mitigation measures cover many sectors, from agriculture and environmental protection to health, so it is almost impossible to combine these costs into a single expenditure item in the GFS and COFOG systems.

Expenditures on measures to combat climate change in Azerbaijan in 2000-2018 years, including current and capital expenses on the implementation of environmental protection measures, expenses on the protection of reserves and national parks, protection and reproduction of wild animals and fish, forestry operations funds directed to the protection of the environment and expenditures on the capital repairs of the fixed capital for the efficient use of natural resources were analyzed and summarized in the second paragraph of the report.

The third paragraph is devoted to the key features of the public finance management and budget system in Azerbaijan. This paragraph analyzes the budget preparation, adoption, execution and reporting process in the country according to the Law on Budget System and regulations related to the budget process. Recent reforms and measures aiming the implementation of the Medium-Term Expenditure Framework (MTEF) and transition to the Result-Based Budgeting in Azerbaijan were covered in the third paragraph of the report. The report emphasized the importance of the implementation of the MTEF and Result-Based Budgeting for integrating climate change financing into budget processes.

The fourth paragraph of the report analyzed relevant structural units and staff of the Ministry of Finance of the Republic of Azerbaijan involved in climate financing and gave information on their main activity directions. The Ministry of Finance, as the main central executive body responsible for drafting, implementing and overseeing the state budget, plays a crucial role in climate-related financing. The fourth paragraph describes the structure of the Ministry which consists of the Central Office, the bodies included in the structure (State Treasury Agency under the Ministry of Finance, State Debt and Liabilities Management Agency, State Financial Control Service and local financial bodies) and subordinate bodies of the ministry (“Data Computing Center” LLC, Financial Science Training Center and “Finance and Accounting Magazine Editorial” LLC and “Baku Congress Center” LLC). The activity directions of the main departments involved in climate financing were listed at this paragraph. Emphasis was placed on the Economic Sector Financing and Investment Projects Financing Departments, which are the main departments responsible for climate-related financing, as well as the newly established MTEF Development Center. Moreover, information on the number of the relevant departments were added to the report.

In the last - **fifth paragraph**, a SWOT analysis of the structural units and staff of the Ministry of Finance involved in climate-related financing was conducted. According to the results of this analysis main **weaknesses** of the Ministry of Finance in terms of climate change financing are:

- financing of climate change measures is poorly integrated into budget processes;

- the current budget classification does not allow to determine how much money is allocated for measures to combat climate change;
- the state budget is the main source of financing of measures to combat climate change, weak cooperation with funds operating in this field;
- unsatisfactory staff awareness of the rules for applying to international climate funds.

According to the report main **threats** in climate-related financing in Azerbaijan are:

- the formation of a large part of state budget revenues at the expense of oil revenues makes budget policy sensitive to oil prices and poses a risk to fiscal sustainability. As the main source of funding for climate change measures is the state budget, expenditures in this area are vulnerable to fluctuations in oil prices;
- the new coronavirus (COVID-19) infection outbreak, which was declared as a pandemic by the World Health Organization (WHO), has led to an increase in negative trends in the global economy and a decrease in aggregate demand for oil. In response, sharp drop in oil prices in March and social isolation measures against the COVID-19 in Azerbaijan this year have affected negatively on the Azerbaijani economy and created many challenges for public finance management.

To conclude, the report defined that the climate finance is not so specific for the budgeting system of Azerbaijan, because:

- Our existing budget classifications do not “see” the climate change;
- Climate change is cross-sectorial;
- We don’t have a single designated ministry/minister for climate change mitigation and adaptation activities;
- Outcomes are more challenging to assign and monitor.

The report suggested the following policy objectives and tools for integrating Climate Change (CC) Finance into budget processes of Azerbaijan:

- in order to understand how much government spends on CC Climate Public Expenditure, an Institutional Review (CPEIR) should be conducted;
- in order to make CC finance visible in budgets, CC Budget Tagging System should be implemented. Moreover, other tools as budget annex on CC allocations or CC Citizen’s Budget could also be presented;
- main tools which should be applied for mobilizing more budget resources for CC:
 - ✓ defining CC criteria as an additional weight in project prioritization process;
 - ✓ engaging with the Parliament on CC budget scrutiny;
 - ✓ implementation of Green Bonds;
- CC budget reporting and collaborative research on CC expenditures (CSOs) should be applied in order to increase accountability for budget spending on CC;
- In order to bridge CC planning with regular budgeting processes CC Financing Framework should be integrated into Medium-Term Expenditure Framework, as well as into budget templates and guidelines (circulars).