



Ministry of Environmental Protection and Agriculture



ANNUAL REPORT
2020



Rural development	6
Rural Development Agency.....	8
Preferential agro-credit project.....	10
Co-financing project for processing and storage enterprises	18
Agricultural Modernization, Market Access and Flexibility (AMMAR) Co-financing Program	26
State Program for Support of Agricultural Production	30
State Program «Plant the Future»	31
Tea Plantation Rehabilitation State Program «Georgian Tea».....	43
The program supporting young entrepreneurs in rural area “Young Entrepreneur”	45
Agricultural insurance program	48
Harvesting Agricultural Machinery Co-Financing Program	52
«State Program for Modernization of the Dairy Sector and Market Access»	54
Rural Development Program	56
Agricultural Landowners Incentive Program	58
Agro-diesel Support Program	59
State Program for Subsidizing Wheat Imports	60
State program for maintaining prices for primary food products	61
Non-standard apple crop sales promotion program	62
State Technical Assistance Program	63
Support to Agricultural Cooperatives	65
Wheat Flour Subsidy State Program	67
Farm / Farmer Registration Project.....	68
Agricultural Extension	68
Fulfillment of obligations by the Rural Development Agency under the Fourth Phase Agreement of the European Neighborhood Program for Agriculture and Rural Development (ENPARD IV)	70
Statistics of projects/programs of A (A) IP “Rural Development Agency” in terms of gender	71
Information Department of the Rural Development Agency	72
Imereti Agrozone	72
Programs/projects in development	73
National Wine Agency	74
Another international recognition of Georgian wine	75
Vintage 2020.....	76

Promotion Of Georgian Wine	78
Export of wine and spirits	80
Quality of Georgian wine	81
testing.....	82
Certification	82
Vineyard Cadaster Program	83
The first regional representation of the Agency.....	83
National Food Agency	84
National Food Agency in the face of a pandemic	85
Food safety	86
Ensuring veterinary safety	88
Ensuring phytosanitary well-being.....	91
Amelioration of Georgia	94
Agency of Protected Areas.....	96
National Environment Agency	112
National Forestry Agency	118
State Laboratory of Agriculture	124
Environmental Information and Education Center	142
Department of Environmental Supervision.....	146
National Agency for Wildlife	154
NATIONAL AGENCY FOR SUSTAINABLE LAND MANAGEMENT AND LAND USE MONITORING	158
LEPL Scientific-Research Center of Agriculture	160
Nuclear and Radiation Safety Agency	180
MINISTRY OF ENVIRONMENTAL PROTECTION AND AGRICULTURE OF GEORGIA	182
Department of Agriculture, Food and Rural Development	183
Department of Environment and Climate Change	185
Waste and Chemicals Management Department	191
Department of Hydro melioration and Land Management.....	193
Department of International Relations and European Integration	197
Department of Environmental Assessment	220
Department of biodiversity and Forestry	224
Legislative activity	232



RURAL DEVELOPMENT

The Rural Development Strategy of Georgia 2017-2020 presents three main priority areas, namely: economy and competitiveness, social conditions and living standards, environmental protection and sustainable management of natural resources. For 2020, the Action Plan (2018-2020) of the Rural Development Strategy of Georgia (2017-2020), includes 63 activities.

Under the responsibility of the Ministry of Environment Protection and Agriculture of Georgia, the Action Plan (2018-2020) of the Rural Development Strategy of Georgia (2017-2020) in 2020 envisaged 27 activities with a total budget of 255,495.8 thousand GEL. As of 2020, the actual budget allocation amounted to 245,238.7 thousand GEL.

Key indicators of activities under the responsibility of the Ministry of Environmental Protection and Agriculture of Georgia for 2020

OBJECTIVE	ACTIVITY	BUDGET 2020	
		ESTIMATED BUDGET (GEL)	BUDGET ACTUAL EXPENDITURE (1000 GEL)
Priority Area 1: Economy and Competitiveness			
Objective 1.1: Economic recovery, restructuring and modernization of farming activities. Through diversification and efficient supply chain development.	1.1.1 Preferential agro-credit	74,000.0	93,182.86
	1.1.2 Youth entrepreneurship support programme	3,245.4	2,020.51
	1.1.3 Plant the future	16,550.0	21,179.96
	1.1.4 Co-financing of storage and processing enterprises	12,200.0	9,227.17
	1.1.5 Support for beekeeping agricultural cooperatives	107.0	106.96
	1.1.7 Development of infrastructure of agricultural cooperatives	4,493.0	4,050.49
	1.1.10 Agricultural Modernization, Market Access and Sustainability	9,800.0	6,661.00
	1.1.11 Construction and rehabilitation of amelioration systems	32,000.0	19,496.1
	1.1.12 Improving irrigation and drainage systems	19,150.0	17,172.7
	1.1.13 Supporting the production of Georgian tea	500.0	23.1
	1.1.14 Harvesting Equipment Co-financing Project	4,000.0	3,487.8
	1.1.15 State Program for Support of Agricultural Production	10,000.0	9,224.0
	1.1.16 State Program for Support of Agricultural Land Owners	42,000.0	29,183.0
1.1.17 Dairying Segment Modernization and Market Access Program	4,000.0	3,670.8	



Priority Area 2: Social conditions and living standards			
Objective 2.3: Involvement of local population. Increase the involvement of the rural population (especially women and youth) in identifying local needs and identifying ways to address them.	2.3.1 Meetings with community groups	0.0	0.0
Priority Area 3: Environmental Protection and Sustainable Management of Natural Resources			
Objective 3.1: Water, forest and other resources. Improve water, forest and other resource management in targeted rural areas.	3.1.1 Protection of protected areas and management of resources	50.0	43.5
	3.1.2 Development of ecotourism in protected areas and effective communication with the public	300.0	1,511.67
	3.1.3 Improve the management of protected areas	0.0	0.0
	3.1.4 Sustainable use of forest resources	12,000.0	11,719.4
	3.1.5 Forest maintenance and restoration	1,150.0	1,364.2
	3.1.6 Forest Registration and Inventory	800.0	1,157.6
	3.1.7 Annual geological monitoring	15.5	15.51
	3.1.8 Conducting geological planning works	0.0	5.9
	3.1.9 Groundwater Monitoring	5.8	44.66
	3.1.10 Monitoring of environmental pollution	0.0	0.0
Objective 3.3: Climate change. Implement mitigation measures for possible negative impacts caused by climate change. Risk assessment	3.3.1. Carrying out regular observations on hydrometeorological parameters, expanding the observation network. (3.3.1 Production of hydrometeorological observations and expansion of the observation network.)	1,129.1	2,689.9
	3.3.2 Agricultural insurance measures	8,000.0	8,000.00
Total budget		255,495.8	245,238.7

Detailed information on the implementation of the activities under the responsibility of the Ministry of Environmental Protection and Agriculture of Georgia is provided in "The Monitoring Report for 2020 of the 2018-2020 Action Plan of the Rural Development Strategy of Georgia (2017-2020)".



Rural
Development
Agency

RURAL DEVELOPMENT AGENCY

Rural Development Agency develops programs/projects initiated by the Ministry of Environmental Protection and Agriculture of Georgia. the Ministry of Environmental Protection and Agriculture of Georgia's initiated programs/projects In order to promote not only the agricultural sector but also environmental protection and rural development in general.

In 2020, as a result of a rebranding carried out by the NNLE Agricultural and Rural Development Agency, the name of the agency was changed to the NNLE "Rural Development Agency".

The mission of the agency is to promote the welfare of farmers and rural residents by providing the necessary resources most efficiently and correctly.

Along with fighting the current pandemics and its impact, comprehensive measures were implemented to support farmers' "Care for the Village and Farmers" as a bailout plan was developed.

In addition to direct assistance to farmers, the bailout plan promoted support to long-term directions. Direct assistance programs considerably reduced the production costs of primary goods to farmers. The implementation of all the programs/projects developed by the State to promote agrarian development in line with contemporary demands was continued. Having due regard to the current situation, several current projects were modified to make them more flexible.

RURAL DEVELOPMENT AGENCY

In 2020, the Rural Development Agency implemented the following programs/projects

- "Preferential Agrocredit Project"
- "Co-financing project of processing and storage enterprises"
- "Agricultural Modernization, Market Access and Flexibility (AMMAR) Co-financing Program"
- "State Program of Agro-Production Promotion "
- "Plant the Future"
- "Georgian Tea"
- "Young Entrepreneur"
- "Agricultural Insurance Program"
- "State program of Co-financing harvesting agricultural machinery "
- "State Program of Dairy Modernization and Market Access" (DiMMA)
- Rural Development Program
- "Program of Stimulating Agricultural Landowners"
- "Agro-diesel Support Program"
- "State Program for Subsidizing Wheat Import"
- "State Program for Maintaining Prices on basic Food Products"
- "Industrial apple sales promotion program"
- "State Technical Assistance Program"
- "Programs to support development of agricultural cooperatives"
- "Wheat Flour Subsidy State Program"
- "Farms / Farmers Registration Project"

See also:

- Agricultural extension
- Fulfillment of obligations by the Rural Development Agency under the Fourth Phase Agreement of the European Neighborhood Program for Agriculture and Rural Development (ENPARD IV)
- RDA programs/projects statistics by gender
- RDA Information Department /Call Center
- Imereti Agrozone
- Programs/projects under development



PREFERENTIAL AGRO-CREDIT PROJECT

The project has been implemented since 2013. The project aims to promote primary agricultural and processing production, storage, and product realization, by increasing easy and affordable access to the funds and finances for agro-entrepreneurs.

Under the project, farmers and enterprises employed in the field of primary production, processing and storage enterprises receive Preferential Agrocredit and agroleasing for fixed and current assets from financial institutions.

Under the anti-crisis plan, changes were made to the Preferential Agrocredit in 2020, the state has fully funded 6-month interest rate to finance the ongoing costs of growing annual crops. With this change, farmers were able to repay the loan by the time of harvest.

In addition, the co-financing rate of fixed assets rose from the existing annual 8% to 11%. The State finances the farmer's 48-month loan at the annual interest rate of 11%. Likewise, the leasing co-financing rates went up from the existing annual 9% to 12%. Financing of grape processing enterprises and production of pasta products was also added to the component of fixed assets.

To support the livestock sector, secondary collateral component has been added to the project, which supports loans under the current assets in the meat sector. If the farmer has no sufficient collateral to secure his/her loan, the State provides 50% collateral for the loan amount.

The project also incorporated a new sub-component to finance the food industry with loans ranging from GEL 1,500,001 through GEL 10,000,000. The Agency co-finances such loans at an annual interest rate of 11% for 36 months. To the project also was added financing food industry in the part of agro-leasing, with the state co-financing of 12%, for 36 months.

Credits/leases are issued by commercial banks / financial institutions participating in the project (13 banks and 4 leasing organizations), and the agency co-finances the credit/leasing interest rate/leasing fee. It should be noted that the interest of the banking/leasing sector in the agricultural sector is one of the most important achievements of the project, which contributes to the development of agriculture.

Depending on the size and purpose of the credit, the interest rates are as follows:

Agrocredit for fixed assets

From 20,000 GEL to 1,500,000 GEL not more than 18%.

The agency co-finances the interest rate at the rate of 11% for no more than 48 months.

Agrocredit for fixed assets - a subcomponent of the Component for agricultural mechanization

From 7,000 GEL to 1,500,000 GEL not more than 18%

The agency co-finances the interest rate at 8% for no more than 48 months.

Agrocredit for fixed assets - subcomponent for the cultivation of new perennial crops

From 20,000 GEL to 1,500,000 GEL not more than 18%

The agency co-finances the interest rate at the rate of 11% for no more than 66 months.

Agrocredit for Fixed Assets - Subcomponent of the Component - for Food Industry Financing

From 1,500,000 GEL to 10,000,000 GEL plus no more than 5% refinancing rate

The agency co-finances the interest rate at the rate of 11% for no more than 36 months.

Preferential agro-leasing

From 20,000 GEL to 1,500,000 GEL not more than the maximum refinancing rate plus 12%.

The agency co-finances the interest rate at the rate of 12% for no more than 48 months.

Preferential Agroleasing Sub-component of the component for agricultural mechanization

From 7,000 GEL to 1,500,000 GEL not more than the maximum refinancing rate plus 12%

The agency co-finances the interest rate at 9% for no more than 48 months.

Preferential Agroleasing Component - For Financing Food Industry

In addition to the maximum refinancing rate of GEL 1,500,000 to GEL 10,000,000 inclusive, Refinancing rate plus 7%

The Agency co-finances the interest rate at the rate of 12% for a maximum of 36 months.

Agrocredit for Current Assets - subcomponent of the component - for financing annual crops.

Not more than 18% on secured credits from GEL 5,000 to GEL 100,000, not more than 21% on unsecured credits

The Agency co-finances the interest rate on fully secured credits, unsecured credits in the amount of 18% for not more than 6 months.

Agrocredit for Current Assets - sub-component of the component - for financing grape purchasing enterprises

Not more than 16% from 20,000 GEL to 15,000,000 GEL

The agency co-finances the interest rate at the rate of 8% for no more than 36 months.

Agrocredit for Current Assets – subcomponent of the component - for financing apple purchasing enterprises

Not more than 18% from GEL 1,000,000 to GEL 5,000,000 inclusive

The agency co-finances the interest rate at 8% for no more than 12 months.

Agrocredit for Current Assets - sub-component of the component - for financing tea-buying enterprises

From 20,000 GEL to 5,000,000 GEL including not more than 18%

The agency co-finances the interest rate at 8% for no more than 12 months.

CREDITS ISSUED, CO-FINANCING, AND BENEFICIARIES

Basic statistical and financial data (2013-2020)

Indicator	2013 March 2020 December	2020 January – 2020 December
Volume of credits issued by banks (GEL)	2,813,636,848	503,569,096
Amount of co-financing of the Agency (GEL)	406,346,111	91,346,466
Number of credits issued by banks	47,398	7,152
Number of unique beneficiaries	26,909	6,333

Credit amounts issued by years (2013-2020)

Year	Preferential credit issued by banks (GEL)	Amount of state co-financing of credit interest (GEL)
2013	249,609,891	4,143,845
2014	481,068,899	29,306,079
2015	318,214,075	53,032,584
2016	200,041,574	49,129,338
2017	310,799,591	48,890,679
2018	293,552,195	60,649,537
2019	456,781,528	69,847,585
2020	503,569,096	91,346,466
Total	2,813,636,848	406,346,111

Note: As part of the Preferential Agrocredit Project, in the 01.01.2020-31.12.2020 reporting period, except for the number and amount of the loans covered by the 2020 Annual Report, loans were issued to borrowers dealing with grapes, spirits, and apple due to the specifics of the activities involved, such loans will be reflected in the Program in Q1-Q2 2021. In total, these loans amounted to GEL 131.5 mln. Accordingly, having regard to the amount of the above loan, the loans issued in the 01.01.2020-31.12.2020 reporting period totaled GEL 635.1 mln..

Credits to working capital and fixed assets by years (2013-2020)

Purpose	Credit amount (GEL)	Number of credits
For working capital	609,893,187	14,761
For fixed assets	2,203,743,661	32,637
Total	2,813,636,848	47,398

In 2013-2020, a total of GEL 47,249 units of loans of GEL 2,775,456,019 and 149 leases in the amount of GEL 38,180,829 were issued.

Credits to current assets and fixed assets (2020)

Purpose	Credit amount (GEL)	Number of credits
For working capital	75,664,131	2,918
For fixed assets	427,904,965	4,234
Total	503,569,096	7,152

In 2020, a total of GEL 7,116 loans amounting to GEL 493,316,724 and 36 leases amounting to GEL 10,252,372 were issued.

CREDITS ISSUED BY SECTORS

Statistical and financial data by sectors (2013-2020)

Purpose	Number of credits issued by banks	Credit amount issued by banks (GEL)	Share in total credit (%)	Amount of state co-financing of credit interest (GEL)
Livestock	13,117	373,113,475	13.26	53,350,609
Purchase of grapes	353	317,691,827	11.29	24,842,247
Viticulture	4,077	267,544,247	9.51	39,551,242
Wine production	485	206,446,760	7.34	41,545,979
Gardening	2,030	202,111,098	7.18	31,732,588
Greenhouse	1,889	104,337,319	3.71	16,398,589
Poultry	996	100,233,431	3.56	18,987,609
Sheep breeding	3,484	94,026,623	3.34	13,178,631
Mixed	1,543	90,926,688	3.23	14,745,732
Other	19,424	1,057,205,381	37.57	152,012,886
Total	47,398	2,813,636,848		406,346,111

Statistical and financial data by sectors (2020)

Purpose	Number of credits issued by banks	Credit amount issued By banks (GEL)	Share in total credit (%)	Amount of state co-financing of credit interest (GEL)
Wine production	112	66,701,699	13.25	6,485,344
Gardening	413	54,790,036	10.88	9,881,825
Viticulture	622	42,094,978	8.36	16,477,213
Mixed processing plants	37	38,702,271	7.69	2,194,795
Growing grain crops	1,424	34,984,255	6.95	861,982
Livestock	645	34,237,305	6.80	8,541,061
Technic	393	18,925,952	3.76	3,930,339
Product storage warehouses	231	17,852,504	3.55	4,130,067
Mixed primary production	462	17,571,619	3.49	4,374,134
Other	2,813	177,708,478	35.29	34,469,705
Total	7,152	503,569,096		91,346,466

Statistical and financial data on annual crop yields by regions within the framework of the anti-crisis plan “Caring for the village and farmers” (2020)

Region	Number of credits issued by banks	Amount of credit issued by bank (GEL)	Amount of co-financing to be issued / Issued (GEL)
Adjara	2	15,000	1,159
Guria	10	131,500	10,481
Imereti	26	548,800	45,607
Kakheti	1,539	36,910,560	2,879,321
Mtskheta-Mtianeti	7	201,700	16,351
Racha-Lechkhumi	3	240,000	18,695
Samegrelo	39	651,365	53,606
Samtskhe-Javakheti	632	7,029,650	544,984
Kvemo Kartli	222	4,809,450	376,097
Shida Kartli	427	6,855,106	517,118
Total	2,907	57,393,131	4,463,419

Credits issued to resident Legal and Physical entities by commercial banks

Date	Total credit portfolio (thousand GEL)	From: Loan portfolio in agriculture, forestry, and fishing (thousand GEL)	Share in full credit portfolio (%)
01/01/2011	5,946,310	47,219	0.79
01/01/2012	7,449,543	59,868	0.80
01/01/2013	8,372,207	59,206	0.71
01/04/2013 *	8,401,257	56,251	0.67
01/01/2014	10,115,168	153,711	1.52
01/01/2015	12,478,505	281,454	2.26
01/01/2016	15,509,651	312,677	2.02
01/01/2017	18,512,300	377,293	2.04
01/01/2018	21,761,898	393,783	1.81
01/01/2019	25,902,382	406,154	1.57
01/01/2020	31,078,641	482,165	1.55
01/01/2021	37,374,287	692,524	1.85

Source: National Bank of Georgia. * «Preferential agrocredit project» started in 2013. March 27th

From April 2013 to January 1, 2021, the total credit portfolio increased 4.45 times (by 345%), while the credit portfolio in agriculture, forestry, and fisheries increased 12.31 times (by 1.131%).

TAXES PAID TO THE STATE BUDGET

2013-2019 Beneficiaries registered as taxpayers in 2013-2019 (both entrepreneurial individuals and legal entities) paid 984,796,717 GEL to the state budget.

Taxes paid to the state budget by the beneficiaries of the preferential agro-credit project (2010-2019, only beneficiaries registered as taxpayers)

Year	Taxes paid by enterprises to the state budget (GEL)	Increase of taxes paid to the state budget in the given year compared to 2012 (GEL)
2010	73,049,789	
2011	99,892,630	
2012	105,433,099	
2013	117,278,674	11,845,575
2014	132,278,734	26,845,636
2015	136,478,322	31,045,223
2016	132,813,948	27,380,849
2017	144,311,110	38,878,011
2018	150,216,449	44,783,350
2019	171,419,480	65,986,381
Total		246,765,025

Source: Ministry of Finance of Georgia

In 2013-2019, each year an average of GEL 35.3 million more was paid to the budget compared to 2012 (In total - 246,765,025 GEL more).

2020 data will be available in the second quarter of 2021

THE GROSS INCOME OF BENEFICIARY ENTERPRISES

The gross income of beneficiaries registered as taxpayers in 2019 is 2.76 times higher than the gross income of agricultural enterprises in 2012 (176 % increase).

Beneficiaries' gross income by years (beneficiaries registered as taxpayers)

Year	Joint income (GEL)	The increase compared to the previous year (GEL)
2010	663,480,009	
2011	828,377,129	164,897,120
2012	935,755,752	107,378,623
2013	1,309,638,759	373,883,007
2014	1,505,815,384	196,176,625
2015	1,522,399,979	16,584,595
2016	1,781,567,269	259,167,290
2017	1,931,017,045	149,449,776
2018	2,178,893,327	247,876,282
2019	2,578,944,917	400,051,590

Source: Ministry of Finance of Georgia. 2020 data will be available in the second quarter of 2021.

JOBS

From the beginning of the project "Preferential Agrocredit", from 2013 to December 2019, up to 11,200 new jobs have been created. The number of employees is higher because the given data are obtained only according to the indicators of the beneficiaries registered as taxpayers.

Number of Employees by Years (Only Beneficiaries Registered as Taxpayers (Both Entrepreneur Physical and Legal

Year	Jobs
2012	11,259
2013	15,868
2014	17,235
2015	18,930
2016	22,910
2017	20,606
2018	22,499
2019	22,420

Source: Ministry of Finance of Georgia

2020 data will be available in the second quarter of 2021.



CO-FINANCING PROJECT FOR PROCESSING AND STORAGE ENTERPRISES

The project aims to create new processing and storage enterprises in Georgia.

The project includes two components:

- Co-financing component of processing enterprises.
- Co-financing component of storage enterprises.

In the framework of the program:

- Agency co-financing - not more than 50% of the total cost of the project, but not more than 600,000 GEL.
- Preferential credit / leasing - not more than 1,500,000 GEL.
- Beneficiary's co-participation and/or alternative financing source of project financing.

Note: Special conditions of co-financing apply to projects that will be implemented in the area defined by the list of highland settlements and villages adjacent to the dividing line and/or which will be implemented by an agricultural cooperative. In this case, the co-financing of the Agency is determined by not more than 60% of the total cost of the project, but not more than 600,000 GEL.

The target area of the co-financing project for processing and storage enterprises is all municipalities and self-governing cities of Georgia, except for the following self-governing cities: Tbilisi, Rustavi, Kutaisi, Batumi, Poti.

Processing Enterprise Component (implemented since 2014)

Below are the already received and forecasted results of the 56 beneficiaries of the project. As of December, 2020 total of 44 enterprises have been launched. All 56 enterprises will be launched in 2021. The figures do not take into account the increase in production and given sales projected average forecast figures. The source of the actual data is the operational information available to the Rural Development Agency, and the forecast data are taken from the business plans approved in the project grant competition.

The average annual estimated data for the 56 enterprises funded under the project are as follows:

INDUSTRIES, ENTERPRISES, INVESTMENTS, AND STATE CO-FINANCING

Statistical and financial data by sectors of funded enterprises (2014 – 2020)

Sector	Number of enterprises	Total Investments (GEL)	State co-financing Grant (GEL)	Share of the state co-financing (Grant) in the total investment (%)
Production of peach puree	1	4,257,803	600,000	14
Laurel processing	2	2,363,379	945,351	40
Fish processing	1	1,557,241	622,896	40
Hazelnut processing	8	11,297,104	3,986,087	35
Berries processing	1	1,048,493	419,397	40
Combined feed production	2	2,284,268	840,290	37
Ham production	1	827,733	331,093	40
Grain processing	1	2,393,702	957,480	40
Milk processing	6	5,401,739	2,472,675	46
Milk processing ("Gudis Kveli" - Sheep cheese)	1	548,500	219,400	40
Production of mushroom briquettes and mushrooms	1	2,741,335	598,255	22
Wine production	5	8,234,989	3,181,864	39
Tea processing	2	2,057,495	989,198	48
Production of tea and spices	1	880,706	352,282	40
Production of dried fruits	2	2,245,033	947,593	42
Fruit processing	15	24,142,361	8,389,576	35
Fruit processing (alcohol production)	1	1,003,492	600,000	60
Production of fruit juices, syrups	1	1,704,081	610,376	36
Meat processing	1	934,105	373,642	40
Meat and fish processing	1	1,050,588	420,235	40
Production of "Janjukhi" and "Tklapi"	1	1,108,528	443,411	40
Total	56	80,057,647	28,901,103	36

Statistical and financial data by sectors of funded enterprises (2020)

Sector	Number of enterprises	Total Investments (GEL)	State co-financing Grant (GEL)	Share of the state co-financing (Grant) in the total investment (%)
Walnut processing	1	1,974,972	600,000	30
Production of dried fruits	2	2,245,033	947,593	42
Fruit processing	2	2,435,843	1,200,000	49
Fruit processing (alcohol production)	1	1,003,492	600,000	60
Total	6	7,659,340	3,347,593	44

In addition to the grant, processing enterprises are also financed by the state with a credit interest rate. In this part, the projected co-financing of the beneficiary enterprises of the project is GEL 14,201,734 (its size may be affected by the early or partial repayment of the credit, changes in the exchange rate, and changes in credit disbursement terms for enterprises that have not yet fully repaid).

RAW MATERIALS, PRODUCTION, AND SALE

Existing and estimated data of raw material purchases and product sales by sectors of funded enterprises (2014-20 Existing and estimated data of raw material purchases and product sales by sectors of funded enterprises (2014-2020))

Sector	Number of Enterprises	Cost of raw materials	Cost of manufactured products (GEL)	Revenue from the sale of products (GEL)
Production of peach puree	1	982,800	1,452,999	2,304,048
Laurel processing	2	528,637	914,220	1,453,780
Fish processing	1	1,034,504	1,084,703	1,526,667
Hazelnut processing	8	61,721,963	66,624,855	71,150,458
Walnut processing	1	1,800,000	755,000	1,780,000
Berries processing	1	112,376	159,286	196,424
Combined feed production	2	3,359,344	3,263,588	3,784,564
Ham production	1	122,283	100,544	200,902
Grain processing	1	878,884	1,264,034	1,436,452
Milk processing	6	1,883,560	2,264,317	3,435,703
Milk processing ("Gudis Kveli" – Sheep Cheese)	1	21,850	34,087	60,210
Production of mushroom briquettes and mushrooms	1	686,252	717,087	1,219,048
Wine production	5	987,806	2,254,727	3,930,896
Tea processing	2	302,200	616,275	1,228,802
Production of tea and spices	1	47,065	200,460	418,000
Production of dried fruits	2	1,032,000	1,878,000	3,940,000
Fruit processing	15	5,904,434	10,228,828	17,149,245
Fruit processing (alcohol Production)	1	108,000	540,000	800,000
Production of fruit juices, syrups	1	179,547	232,540	451,532
Meat processing	1	584,545	825,061	1,035,000
Meat and fish processing	1	548,818	896,855	1,350,779
Production of "janjukhi" and "tklapi"	1	118,295	91,608	269,314
Total	56	82,945,162	96,399,073	119,121,823

JOBS CREATED

Co-financing component of Processing Enterprises – Working Places (already created + estimated) (2014-2020)

Sector	Number of Enterprises	Employed (person)	The average number of employees in the enterprise
Production of peach puree	1	12	12
Laurel processing	2	51	26
Fish processing	1	13	13
Hazelnut processing	8	578	72
Walnut processing	1	15	15
Berries processing	1	28	28
Combined feed production	2	38	19
Ham production	1	11	11
Grain processing	1	50	50
Milk processing	6	87	15
Milk processing ("Gudis Kveli" – Sheep Cheese)	1	6	6
Production of mushroom briquettes and mushrooms	1	49	49
Wine production	5	65	13
Tea processing	2	25	13
Production of tea and spices	1	23	23
Production of dried fruits	2	66	33
Fruit processing	15	365	24
Fruit processing (alcohol Production)	1	12	12
Production of fruit juices, syrups	1	23	23
Production of fruit juices, syrups	1	18	18
Meat processing	1	24	24
Meat and fish processing	1	23	23
Total	56	1,582	28

RESULTS GAINED FROM THE STATE GRANT

Created investments

Total investment (GEL)	80,057,647
State co-financing in the form of a grant (GEL)	28,901,103
Attracted investment (GEL)	51,156,544
1 GEL grant attracted investment (GEL)	1.77

80,057,647 GEL (grant, credit, entrepreneur investment) have been invested in 56 enterprises since 2014 or are in the process of investment. The share of the state grant (GEL 28,901,103) in investments was 36.1%. One GEL invested by the state attracted 1.77 GEL investment (agrocredit and entrepreneurial investment).

Employment

Total number of employees (including seasonal employment)	1,582
The average salary of 1 employee including income tax (GEL/month)	475
Total Salary of Employees Including Income Tax (GEL / Year)	9,280,000
Income tax total (GEL / year)	1,856,000
1 GEL salary created by the grant (GEL/year)	0.26

56 enterprises will employ 1,582 people (average 28 employees in 1 enterprise) including seasonal employees. The annual salary of the employees is 9,280,000 GEL (475 GEL (including income tax) per 1 employee per month). One GEL invested by the state creates an annual salary of 0.26 GEL (of which 0.05 GEL will be paid annually to the state budget in the form of income tax).

Raw materials

Cost of raw materials to be purchased (GEL)	82,945,162
Purchases of raw materials created with 1 GEL grant (GEL/year)	2.87

56 enterprises will purchase local raw materials for GEL 82,945,162 per year - one GEL invested by the state will bring in 2.87 GEL per year for hundreds of small and medium-sized local farms.

Revenues and products

Graduation mass of agricultural products (kg / year)	19,518,069
Cost of agricultural products to be sold (GEL)	96,399,073
Created value added (GEL)	22,722,751
sales cost of products created with 1 GEL grant (GEL/year)	4.12
the added value created by 1 GEL grant (GEL/year)	0.79
the added value created by 1 GEL grant (GEL/year)	0.79

56 enterprises in the country will create an additional 19,518.07 tons of agricultural products with a sales value of more than 119 million GEL (1 GEL grant creates 0.68 kg of agricultural products annually). One GEL invested by the state as a grant will create a value-added of 0.79 GEL per year.

Co-financing component of Storage Enterprises (implemented since 2016)

SECTORS, ENTERPRISES, INVESTMENTS, AND STATE CO-FINANCING

Statistical and financial data by sectors of funded enterprises (2016-2020)

Sector	Number of Enterprises	Total Investment (GEL)	State co-financing (GEL)	State co-financing share in the total investment (%)
Fruit saver	1	1,313,521	525,408	40
Vegetable saver	1	1,020,616	510,308	50
Seed crop saver	2	4,077,036	1,200,000	29
Nut saver	5	3,981,136	1,983,980	50
Nut saver	1	862,440	344,976	40
Potato saver	1	1,657,723	627,556	38
Savings of berry crops	3	2,815,910	1,332,716	47
Savings of curcumin crops	7	9,096,813	4,142,631	46
Fruit storage	6	8,490,678	3,600,000	42
Fruit and vegetable Storage	16	20,323,563	9,093,589	45
Total	43	53,639,435	23,361,165	44

One GEL grant invested by the state as a grant in a co-financing component of storage enterprises attracted an investment of GEL 1.30..

Statistical and financial data by sectors of funded enterprises (2020)

Sector	Number of Enterprises	Total Investment (GEL)	State co-financing (GEL)	State co-financing share (grant) in the total investment (%)
Storage of berry crops	1	1,350,477	600,000	44
Fruit and vegetable Storage	9	10,305,050	5,124,422	50
Total	10	11,655,527	5,724,422	49

THE CAPACITY OF STORAGE ENTERPRISES

Performance (Capacity) of Funded Enterprises by Sectors (2016-2020)

Type of storage enterprise	Quantity	Total capacity (tone)
Fruit storage	1	500
Vegetable storage	1	800
Seed crop storage	2	2,000
Walnut storage	5	2,756
Hazelnut storage	1	1,000
Potato storage	1	1,800
storage of berry crops	3	700
storage of curcumin crops	7	4,710
Fruit storage	6	4,500
Fruit and vegetable storage	16	11,180
Total	43	29,946

ENTERPRISES BY REGIONS AND SECTORS

Funded enterprises by regions and sectors (2016-2020)

Region / Sector	Number of Storage enterprises
Guria	1
Berry	1
Imereti	1
Berry	1
Kakheti	8
Hazelnut storage	3
Fruit storage	1
Fruit and vegetable storage	4
Mtskheta-Mtianeti	2
Fruit storage	1
Fruit storage	1
Samegrelo-Zemo Svaneti	2
Hazelnut storage	1
Hazelnut storage	1
Kvemo Kartli	4

Storage of vegetables	1
Seeded	1
Potato saver	1
Fruit and vegetable storage	1
Shida Kartli	25
Seeded	1
Hazelnut storage	1
Berry	1
Drupaceous	7
Fruit storage	4
Fruit and vegetable storage	11
Total	43

Funded enterprises by regions and sectors (2020)

Region / Field	Number of storage enterprises
Imereti	1
Berry	1
Kakheti	1
Fruit and vegetable storage	1
Kvemo Kartli	1
Fruit and vegetable storage	1
Shida Kartli	7
Fruit and vegetable storage	7
Total	10

In addition to the grant, the state-owned storage enterprises (within the framework of the preferential agrocredit project) also finance the credit interest; In this part, the projected co-financing of the beneficiary enterprises of the project is GEL 7,127,589 (its size may be affected by early or partial repayment of the credit, exchange rate fluctuations and changes in credit tranche terms for those enterprises that have not yet completed the credit).



AGRICULTURAL MODERNIZATION, MARKET ACCESS AND FLEXIBILITY (AMMAR) CO-FINANCING PROGRAM

The program is implemented within the framework of the "Agricultural Modernization, Market Access, and Flexibility Project" (AMMAR). The program is funded by the International Fund for Agricultural Development (IFAD) and the Global Environment Facility (GEF). The program started in 2016 and is implemented by the Rural and Agricultural Development

The program aimed to increase the quality and productivity of the primary production product, to promote the expansion and modernization of existing processing and storage agro-enterprises, as well as the introduction of international standards and modern technologies.

PRIMARY PRODUCTION COMPONENT

Beneficiaries of the program: Farmers and commercial legal entities who want to upgrade existing orchards or plant new ones, arrange/ renovate greenhouses, purchase agricultural equipment, purchase frost and hail protection systems, cultivate primary / recyclable Procurement of equipment required for BIS, and arrangement of infrastructure for primary crop storage.

Main conditions of the program: the beneficiary receives co-financing from the state in the amount of 40% of the total cost of the project, the co-beneficiary's participation is 60%. The maximum amount of state co-financing for agricultural cooperatives is the corresponding amount of USD 150,000 in GEL, for other persons - the corresponding amount of USD 15,000 in GEL.

COMPONENT OF PROCESSING AND STORAGE ENTERPRISES

Beneficiaries of the program: Commercial legal entities that want to modernize existing processing/storage enterprises or create new processing/storage enterprises.

Main conditions of the program: the beneficiary receives co-financing from the state in the amount of 40% of the total cost of the project, the co-beneficiary's participation is 60%. The maximum amount of state co-financing is the corresponding amount of USD 100,000 in GEL.

PURPOSE INVESTMENTS AND STATE CO-FINANCING

"Agricultural Modernization, Market Access and Flexibility (AMMAR)" Co-financing Program - number of projects and investments by components (2016-2020)

Component	Number of Projects	Investment (GEL)	Amount of state co- financing (GEL)	State co-financing share in the total investment (%)
Processing and storage enterprise component	14	6,612,724	2,620,687	40
Primary production component	694	31,932,608	12,586,880	39
Total	708	38,545,332	15,207,568	39

"Agricultural Modernization, Market Access and Flexibility (AMMAR)" Co-financing Program - Number of projects and investments by components (2020)

Component	Number of Projects	Investment (GEL)	Amount of state co- financing (GEL)	State co-financing share in the total investment (%)
Processing and storage enterprise component	2	958,680	383,472	40
Primary production component	113	5,267,143	2,105,993	40
Total	115	6,225,823	2,489,465	40

One GEL grant invested by the state under the program attracted an investment of GEL 1.50.

Purpose, projects, investments

"Agricultural Modernization, Market Access and Flexibility (AMMAR)" Co-financing Program - Number of Projects and Investments for its intended purpose (2016-2020)

Purpose to be financed	Number of Projects	The total amount of Investments	Amount of state co- financing (GEL)
Processing plant	1	741,000	296,400
Purchase / repair of equipment	11	3,707,307	1,471,883
Technology adapted to climate change	1	13,850	5,540
Beekeeping inventory	56	2,695,918	1,073,631
The primary storage of the crop.	10	1,582,429	551,702
Cultivation / rehabilitation of a perennial garden	25	565,024	226,116
Arrangement / re-equipment of the greenhouse	101	9,037,709	3,563,525
Purchase of irrigation system	1	22,850	9,140
Agricultural machinery	452	17,844,740	7,118,488
Certification (Global GAP)	1	26,300	10,520

Anti-hail nets	8	1,115,150	445,105
Arranging a savings farm	1	650,741	260,296
Drip irrigation system	40	542,313	175,222
Total	708	38,545,332	15,207,568

„Agricultural Modernization, Market Access and Flexibility (AMMAR)" Co-financing Program - Number of Projects and Investments by Purpose (2020)

Purpose to be financed	Number of Projects	The total amount of Investments	Amount of state co- financing (GEL)
Processing plant	1	741,000	296,400
Purchase / repair of equipment	1	217,680	87,072
Beekeeping inventory	4	153,168	61,267
Cultivation of a perennial garden / Rehabilitation	7	277,815	111,126
Arrangement / re-equipment of the greenhouse	9	338,543	135,417
Agricultural machinery	90	3,788,334	1,514,469
Anti-hail nets	3	709,283	283,713
Total	115	6,225,823	2,489,465

Estimated results in the primary production component:

- Greenhouses produce products of 3.24 million GEL annually.
- Honey is produced annually of 3.3 million GEL.
- Refrigerators will earn GEL 550,000 annually.
- Farmers will save GEL 4.1 million annually on renting agricultural machinery.

Estimated results in the component of processing and storage enterprises:

- 402 people will be employed
- 1.32 million GEL will be issued annually in the form of salaries.
- Products worth 5.8 million GEL will be created.

REGIONS, PROJECTS, AND INVESTMENTS

Projects and investments by regions (2016-2020)

Region	Number of Projects	The total amount of Investments	Amount of state co- financing (GEL)
Adjara	4	85,851	34,340
Guria	13	481,817	192,727
Imereti	69	6,427,464	2,557,623
Kakheti	221	8,282,627	3,288,480
Mtskheta-Mtianeti	20	2,490,649	989,254
Racha-Lechkhumi, Kvemo Svaneti	10	992,757	393,863
Samegrelo	66	4,969,420	1,949,560
Samtskhe-Javakheti	14	504,210	191,997
Kvemo Kartli	26	1,531,524	598,316
Shida Kartli	265	12,779,014	5,011,408
Total	708	38,545,332	15,207,568

Projects and investments by regions (2020)

Region	Number of Projects	The total amount of Investments	Amount of state co- financing (GEL)
Guria	1	39,657	15,863
Imereti	12	376,991	150,797
Kakheti	39	1,579,688	631,875
Mtskheta-Mtianeti	3	61,203	24,481
Samegrelo	10	464,622	185,849
Kvemo Kartli	1	6,833	2,733
Shida Kartli	49	3,696,828	1,477,867
Total	115	6,225,823	2,489,465



STATE PROGRAM OF AGRO-PRODUCTION PROMOTION

The goal of the state program of agricultural production is to promote primary production of annual and perennial crops.

The program has the following objectives:

- Co-financing of agricultural machinery, in particular: agricultural tractor with not more than 100 hp, hand tractor (moto block), self-propelled equipment for agricultural land rehabilitation works, agricultural machinery.
- Co-financing purchase of fixed assets for the arrangement of a new greenhouse and/or the expansion/modernization of an existing greenhouse and the co-financing of their installation works.
- Co-financing purchase of an irrigation system for annual crops and their installation works.

The amount of co-financing of the Agency to arrange the greenhouse and/or irrigation system of this Resolution per beneficiary is not more than 50%, but not more than 50,000 GEL, and in the case of an agricultural cooperative with less than 70% Has at least 0.1 ha of agricultural land, the amount of co-financing is determined by not more than 50% of the value of the goods/services to be purchased, but not more than 500,000 GEL. In addition, the amount of co-financing for an agricultural cooperative is determined according to the number of shareholders of the cooperative, of not more than GEL 50,000 per shareholder.

PURPOSES, PROJECTS, AND INVESTMENTS

"State Program of Agricultural Production Promotion" - amounts of projects and investments by purpose (2020)

Purpose	Number of Enterprises	Total Investment (GEL)	State co-financing (GEL)	State co-financing share in the total investment (%)
Greenhouse	104	6,556,352	3,311,486	51
Irrigation system	28	1,119,128	484,939	43
Agricultural machinery	252	12,496,061	5,854,703	47
Total	384	20,171,540	9,651,127	48

One GEL grant invested by the state under the program attracted GEL 1.09 investment. Regions, Projects, and investments Projects and investments by regions (2020)



STATE PROGRAM «PLANT THE FUTURE»

Under the program, farmers, with the help of state co-financing, can plant perennial orchards and set up nurseries. The program was launched in March 2015 and its main goal is to effectively use the agricultural lands in Georgia through the cultivation of perennial crops, which will replace imported products with Georgian products, increase exports, facilitate the provision of raw materials for processing enterprises and improve the social-economic situation of the rural population.

The program "Plant the Future" consists of four components and one subcomponent: Component of co-financing perennial gardens, Co-financing component of the nursery gardens, Co-financing component for the installation of anti-hail systems and/or arrangement of a well/borehole pumping station, Co- Financing component of damaged seedlings as a result of natural disasters subcomponent for financing berry crops.

Under the perennial gardens component (as of 2020) 70 % of the seedling cost, and in case of cooperatives with agricultural status, settlements adjacent to the dividing line and highland settlements 80% of the value (maximum amount of co-financing per seedling is defined) 50% of the value of drip irrigation system are funded, and In case of cooperatives with agricultural status, villages adjacent to the dividing line and highland settlements, 60% of the cost (co-financing of no more than GEL 2,500 per hectare is provided for the arrangement of drip irrigation system) are also funded.

The beneficiary of the state program "Plant the Future" can participate several times, however, the total amount of funding received should not exceed 250,000 GEL, and the total area of cultivated garden should not exceed 50 hectares.

As a part of the garden component of the program, cultivation of at least 0.5 ha of perennial garden by one beneficiary will be financed.

The amount of co-financing per 1 ha should not exceed 10,000 GEL. The maximum funding limit for 1 hectare of the blueberry crop is 15,000 GEL.

Under the garden component, first, 70% / 80% of the cost of the purchased seedlings will be financed, and from the remaining difference of the amount - a drip irrigation system.

Agricultural cooperatives participating in the program will be financed/reimbursed for the cost of the poisoning equipment to be purchased based on the submitted invoice and/or the relevant document, but not more than 5,000 GEL. The berry crops sub-component envisages 100% financing of seedlings required for the cultivation of berry crops (blueberries, raspberries, blackberries), purchase/installation of drip irrigation system, and 100% of the cost of materials for garden cultivation for 0.15 ha to 0.5 ha of agricultural land.

Under the nursery component of the program 70% of the cost of setting up the nursery is funded, but not more than GEL 500,000; However, in case of creating a new nursery, the total value of the target (s) defined by the nursery component should be at least GEL 100,000.

The co-financing component for the arrangement of hail-suppression systems and/or wells/bore-holes/pumping station envisages financial assistance to potential beneficiaries for the modernization of existing perennial orchards and/or planting the new ones or the cultivation of new perennial gardens in all municipalities and self-governing cities of Georgia, except for the following self-governing cities: Tbilisi, Rustavi, Kutaisi, Batumi, Poti.

- Physical and legal entities will be financed not more than 10% of the cost of arranging anti-hail systems for vineyards, apples, pears, and plums, and in the case of cooperatives with agricultural status, villages adjacent to the dividing line and highland settlements - not more than 20%, with the upper limit of co-financing defined.
- Individuals and legal entities will be financed/reimbursed not more than 50% of the cost of arranging the well / bore system (including the pumping station), but not more than 15,000 GEL; And in the case of cooperatives with agricultural status, villages adjacent to the dividing line and highland settlements - not more than 60%, but not more than 18,000 GEL.
- Arrangement of drip irrigation system is financed on an agricultural land plot, which is not financed and/or required for perennial garden cultivation within the component of this program, in case of physical and legal entities - not more than 50%, but not more than 1,250 GEL 0.5 per hectare, and in case of cooperatives with agricultural status, villages along the dividing line and mountainous settlements - not more than 60%, but not more than GEL 1,500 per 0.5 hectares. The component finances arrangement of no more than 50 ha of a drip irrigation system by one beneficiary

The component of financing the damaged seedlings as a result of natural calamities (hereinafter referred to as the Seedling Component) provides for the replacement of seedlings in perennial orchards/plantations/vineyards damaged as a result of natural calamities such as hail, hurricane and flood, through the financing of the cost of perennial crop seedlings of potential beneficiaries.

- The cost of seedlings to be purchased is financed under the seedling's component both in case of purchase of seedlings on the local market and their import. The maximum value of each seedling is set. Within the seedling component, replacement of damaged seedlings on not more than 50 ha is financed for one beneficiary of not more than 250,000 GEL.

The sub-component of financing the berry crops provided 100% financing of the cost of seedlings needed for the cultivation of berry crops (blueberries, raspberries, blackberries), purchase/installation of drip irrigation system, and other necessary materials for 0.15 ha to 0.5 ha of agricultural land.

Gardens component

CROPS, AREAS, AND INVESTMENTS

Crops cultivated/in the process of cultivation and investments (2015-2020)

Crop	Area (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (GEL)
Cherries	4.11	48,589	23,456	48%
Sour cherry-plum	3.84	10,050	6,895	69%
Peach	45.89	422,438	193,191	46%
Sweet cherry	180.87	2,410,561	1,025,277	43%
pomegranate	70.13	638,667	279,513	44%
Apricots	17.89	135,284	64,602	48%
Laurel	5.16	66,195	42,527	64%
nectarine	1.46	12,964	6,265	48%
Apples	1,185.73	19,652,658	10,116,724	51%
olive	544.35	4,691,786	2,822,396	60%
Hazelnut	696.79	2,531,052	1,344,362	53%
Walnut	3,042.53	25,028,633	14,886,667	59%
quince	42.72	315,208	158,822	50%
Blueberries	859.96	24,607,909	12,421,823	50%
Blackberry	239.03	3,209,128	1,923,037	60%
Pear	100.05	2,145,948	840,678	39%
Almonds	2,137.77	18,674,716	9,259,992	50%
Raspberry	422.61	6,803,668	4,085,326	60%
White grape wine	133.31	2,260,697	1,149,449	51%
Red grape wine	215.13	3,088,520	1,860,097	60%
Table grapes	54.88	965,697	332,895	34%
Sour plum	192.96	1,199,854	685,487	57%
Feijoa	40.70	285,639	154,808	54%
Pistachio	124.11	539,100	349,320	65%
Plum	350.17	3,496,980	1,759,091	50%
cornel	2.54	16,350	9,255	57%
Persimmon	133.66	1,267,424	566,903	45%
total	10,848.33	124,525,714	66,368,856	53%

By investing 1 GEL state grant, 0.89 GEL investment is attracted. From 2015 to December 31, 2020, a total of 2,688 orchards (garden component and berry crop financing subcomponent) have been cultivated or are in the process of being cultivated.

Crops cultivated and in the process of cultivation and Investments (2020)

Crop	Area (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (GEL)
Cherries	1.20	14,875	8,188	55
Sour cherry plum	1.70	3,750	2,625	70
Peach	7.38	71,896	40,270	56
Seet cherry	35.27	844,280	260,892	31
pomegranate	24.34	174,123	92,148	53
Apricots	5.20	84,602	34,714	41
Laurel	5.16	66,195	42,527	64
nectarine	1.46	12,964	6,265	48
Apples	167.99	3,345,099	1,717,647	51
olive	76.50	622,483	408,340	66
Hazelnut	70.14	212,383	131,346	62
Walnut	233.45	1,976,454	1,245,511	63
quince	4.79	48,552	26,133	54
Blueberries	403.35	12,657,543	5,822,994	46
Blackberry	62.05	963,515	557,207	
Pear	35.49	1,191,127	388,524	33
Almonds	720.68	7,639,310	3,579,948	47
Raspberry	104.68	1,599,954	1,054,409	66
White grape wine	95.91	1,648,593	877,934	53
Red grape wine	215.13	3,088,520	1,860,097	60
Table grapes	50.48	847,112	281,010	33
Sour plum	49.71	369,381	207,604	56
Plum	39.66	358,820	196,329	55
Persimmon	1.99	29,365	13,720	47
Total	2,413.73	37,870,895	18,856,381	50

REGIONS AND AREAS

Areas cultivated and in the process of cultivation by regions (2015-2020)

Region	2015-2020 – Area (ha)	Out of it in 2020 – area (ha)
Adjara	68.78	24.40
Guria	306.38	110.08
Imereti	689.42	197.28
Kakheti	3,864.84	507.25
Mtskheta-Mtianeti	172.86	53.27
Racha-Lechkhumi and Kvemo Svaneti	40.11	19.47
Samegrelo-Zemo Svaneti	957.28	327.51
Samtskhe-Javakheti	25.68	0.50
Kvemo Kartli	2,263.77	810.08
Shida Kartli	2,459.22	363.89
Total	10,848.33	2,413.73

YIELD AND INCOME

Estimated Crop Yield and Farmers' Estimated Income by Years

Year	2021	2022	2023	2024	2025	2026	2027
Harvest (tons)	27,045	40,276	55,189	77,129	90,114	98,899	104,149
Income (GEL)	51,544,018	86,049,385	131,370,540	198,216,689	245,775,306	286,225,102	312,841,809

The program "Plant the future" - cultivated crops forecast harvest (tons) List

Crop, tons / year	2021	2022	2023	2024	2025	2026	2027
Drupaceous	2,010	4,304	7,029	10,637	13,560	15,976	17,316
Seeded	20,935	27,878	33,819	41,470	44,543	45,427	45,929
Subtropical	573	937	1,426	1,886	2,394	2,518	2,600
Nuts	2,305	4,706	7,897	11,805	15,025	17,807	19,495
Berry	1,223	2,452	5,018	11,316	14,568	17,138	18,770
Essential oil	0	0	0	16	24	32	40
Total	27,045	40,276	55,189	77,129	90,114	98,899	104,149

The program “Plant the Future” - Farmers' Estimated Income (GEL per Year) by Crops and Years

Crop, tons / year	2021	2022	2023	2024	2025	2026	2027
Drupaceous	3,398,112	7,105,664	11,370,071	16,998,524	21,469,162	25,208,927	27,306,143
Seeded	27,253,146	36,322,822	44,093,779	54,116,704	58,173,578	59,378,672	60,078,831
Subtropical	676,232	1,068,636	1,559,631	2,023,989	2,523,275	2,654,225	2,727,585
Nuts	14,016,845	28,519,378	47,960,856	72,109,638	92,025,766	109,274,193	119,962,609
Berry	6,199,683	13,032,885	26,386,204	52,958,272	71,569,183	89,689,961	102,742,737
Essential oil	0	0	0	9,561	14,342	19,123	23,904
Total	51,544,018	86,049,385	131,370,540	198,216,689	245,775,306	286,225,102	312,841,809

Note: 1) Yield is given as average; 2) The calculation of the given indicators takes into account the permissible percentages of the norm of drying of newly planted seedlings established by the Agricultural Scientific Research Center; 3) Given rates may increase up to 25-30% against a high agro-technical background and in appropriate favorable microclimatic conditions..

Nursery component

CROPS AND INVESTMENTS

Crops and Investments (2016-2020)

Crop	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (GEL)
Cherries	1,807	904	50
Peach	1,808	904	50
Sweet cherry	1,808	904	50
Vine	994,567	624,297	63
Apples	1,808	904	50
nut	23,040	11,520	50
Berries	1,227,140	858,089	70
quince	1,808	904	50
Blackberry	725,190	500,000	69
Blueberries	1,176,853	801,483	68
Pear	1,808	904	50
Almonds	1,808	904	50
Raspberry	295,898	147,949	50
Plum	1,808	904	50
Total	4,457,148	2,950,568	6

Crops and Investments (2020)

Crop	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (GEL)
Vine	994,567	624,297	63%
Berries	1,227,140	858,089	0%
Blackberry	725,190	500,000	69%
Blueberries	1,176,853	801,483	68%
Total	4,123,750	2,783,869	68%

REGIONS AND INVESTMENTS

Regions and Investments (2016-2020)

Region	Total investment (GEL)	State co-financing (GEL)
Imereti	1,520,958	996,949
Kakheti	459,067	321,347
Samegrelo-Zemo Svaneti	1,480,950	960,157
Kvemo Kartli	535,943	352,846
Shida Kartli	460,230	319,269
Total	4,457,148	2,950,568

Regions and Investments (2020)

Region	Total investment (GEL)	State co-financing (GEL)
Imereti	1,225,060	849,000
Kakheti	459,067	321,347
Samegrelo-Zemo Svaneti	1,457,910	948,637
Kvemo Kartli	535,943	352,846
Shida Kartli	445,770	312,039
Total	4,123,750	2,783,869

Sub-component of Berry crops Finaning

The sub-component of financing berry crops envisages 100% financing of seedlings needed for berry crop (blueberry, raspberry, blackberry) garden, purchase/installation of drip irrigation system, and other necessary materials for 0.15 ha to 0.5 ha of agricultural land.

CROPS, AREAS, AND INVESTMENTS

Crops already cultivated and in the process of cultivation and investments (2019-2020)

Crop	Area (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Blueberries	234.31	9,463,191	9,463,191	100
Blackberry	26.05	414,892	414,892	100
Raspberrry	96.43	2,540,604	2,540,604	100
Total	356.78	12,418,686	12,418,686	100

Crops already Cultivated and in the process of cultivation and Investments (2020)

Crop	Area (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Blueberries	183.66	7,353,211	7,353,211	100
Blackberry	21.10	335,235	335,235	100
Raspberrry	82.34	2,193,919	2,193,919	100
Total	287.10	9,882,366	9,882,366	100

REGIONS AND AREAS

Areas already cultivated and in the process of cultivation by regions (2019-2020)

Region	2019-2020 – Area (ha)	Out of it in 2020 – Area (ha)
Guria	56.41	40.47
Imereti	85.36	58.78
Kakheti	4.13	4.13
Mtskheta-Mtianeti	14.38	5.59
Racha-Lechkhumi and Kvemo Svaneti	3.72	3.72
Samegrelo-Zemo Svaneti	146.71	129.10
Samtskhe-Javakheti	5.09	5.09
Kvemo Kartli	0.86	0.86
Shida Kartli	40.11	39.36
Total	356.78	287.10

Co-Financing the arrangement of an anti-hail system

CROPS, AREAS, AND INVESTMENTS

Crops and investments (2020)

Crop	Area (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Apple	5.50	345,593	26,125	8
Apples, sweet cherries, pears	1.95	123,191	14,235	12
Table grapes	30.00	1,885,050	165,300	9
Total	37.45	2,353,834	205,660	9

REGIONS AND AREAS

Areas by regions (2020)

Region	2020 – area (ha)
Kvemo Kartli	35.50
Shida Kartli	1.95
Total	37.45

Financing the arrangement of drip irrigation systems

CROPS, AREAS, AND INVESTMENTS

Crops and Investments (2020)

Crop	Area of the land on where drip irrigation system arrangement is planned	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Apples	29.51	174,657	77,055	44
Nut	89.79	505,323	224,172	44
Nuts, persimmons	1.60	7,124	3,562	50
Walnuts	4.30	20,161	10,728	53
Persimmon	0.50	2,920	1,252	43
Total	125.71	710,185	316,769	45

REGIONS AND AREAS

Areas by regions (2020)

Region	2020 – area (ha)
Imereti	4.00
Kakheti	2.85
Samegrelo-Zemo Svaneti	88.04
Shida Kartli	30.81
Total	125.71

Financing the arrangement of drip irrigation systems

CROPS, AREAS, AND INVESTMENTS

Crops and Investments (2020)

Crop	The total area of the land plot on which well/boring well/pumping station is planned to be arranged (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Apples	4.00	29,406	14,703	50
Apples, peaches, sweet cherries	6.13	18,000	9,000	50
Apples, sweet cherries	12.00	32,816	15,000	46
Apples, pears, plums, sour plum, walnuts	1.00	30,560	18,000	59
Nut	7.85	58,237	29,119	50
Nuts, persimmons	4.24	53,300	26,650	50
Walnuts	2.86	62,200	33,000	53
Blueberries	50.50	208,834	100,503	48
Wine vine	7.30	62,500	30,000	48
Sour plum	4.00	29,000	16,200	56
Persimmon	1.97	58,200	29,100	50
Total	101.85	643,053	321,275	50

REGIONS AND AREAS

Areas by Regions (2020)

Region	2020 – Area (ha)
Guria	8.60
Imereti	3.90
Kakheti	15.69
Mtskheta-Mtianeti	1.00
Samegrelo-Zemo Svaneti	50.54
Kvemo Kartli	12.00
Shida Kartli	10.13
Total	101.85

Financing of spraying equipment for cooperatives funded under the co-financing component of perennial gardens

NAME AND MODEL OF SPRAYING EQUIPMENT, INVESTMENTS

Name and model of the spraying equipment, investments (2020)

Name and model of the poisoning device	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Self-spraying equipment of vineyards and orchards	6,300	5,000	79
Total	6,300	5,000	79

Replacement of damaged seedlings in perennial crop(s) in the garden, plantation, vineyard

CROPS, AREAS, AND INVESTMENTS

Crops already cultivated and in the process of cultivation and Investments (2020)

Crop	Area (ha)	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Wine vine with white grapes	4.80	27,813	27,813	100
Wine vine with red grapes	50.00	249,923	249,923	100
Total	54.80	277,736	277,736	100

REGIONS AND AREAS

Areas already Cultivated and in the process of cultivation by regions (2020)

Region	2020 - area (ha)
Kakheti	54.80
Total	54.80



TEA PLANTATION REHABILITATION STATE PROGRAM «GEORGIAN TEA»

The goal of the program is to rehabilitate both privately and state-owned tea plantations, to use their potential effectively, to establish modern tea processing plants, and to promote the growth of local tea production (including bio tea). The program has been implemented since 2016.

According to the changes made in the state program "Georgian Tea" in 2020, the amount of state funding for rehabilitation works has increased.

In the case of agricultural cooperatives, co-financing from the state has been increased up to 90% of not more than GEL 3,000 per hectare, while for the other beneficiaries there will be co-financing of 70% of not more than GEL 2,500 per hectare.

In the framework of the program, the beneficiary must ensure the rehabilitation of the tea plantation and the full implementation of the 36-month agro-technological plan.

After the completion of agro-technological works for the next 2 (two) years (i.e. 4th and 5th year), the beneficiary of the program must receive a raw leaf annually:

- Not less than 2,000 kg per hectare.
- In the case of bio tea - not less than 1,000 kg per hectare.

Given the fact that tea processing enterprises have already been established in the country, and the raw materials for tea are scarce, the beneficiaries of the program will no longer have the obligation to establish an enterprise.

PROJECTS, AREAS, AND INVESTMENTS

Tea Plantation Rehabilitation Program - Number of Projects, Area and Investments (2016-2020)

Number of Projects	Area to be Rehabilitated (ha)	Total Investment (GEL)	Amount of the State co-financing	Mass * of finished products (processed tea without packaging) (kg/year)	The sale price of finished products (processed tea) (GEL/year)
51	1,192	2,970,834	2,068,922	1,430,000	42,900,000

* Finished products include processed tea without packaging.

One GEL invested by the state attracted an investment of 0.44 GEL (total investment includes only investments necessary for the rehabilitation of tea plantations, does not include costs such as fencing, construction of a tea processing plant, purchase of equipment, introduction of standards ...). With the investment of 1 GEL state grant, 0.60 kg will be produced annually. Tea products and farmers/enterprises will earn 20.74 GEL annually.

The number of permanent employees will be 525, and the number of seasonally employed - up to 1,400 people. The average salary for employees in the enterprise will be in the range of 400-500 GEL per month.

Tea Plantation Rehabilitation Program - Number of Projects, Area and Investments (2020)

Number of projects	Rehabilitation area (ha)	Total Investment (GEL)	Amount of the state co-financing (GEL)
2	168	419,192	293,434

In addition, in 2019, 8 cooperatives were provided with the machinery needed for primary tea processing (at 314,080 GEL).



THE PROGRAM SUPPORTING YOUNG ENTREPRENEURS IN RURAL AREA “YOUNG ENTREPRENEUR»

The program is initiated by the Ministry of Environmental Protection and Agriculture of Georgia and has been implemented in 2018 with the funding of the Rural Development Agency, a donor organization, and the Danish International Development Agency (DANIDA).

The program aimed to stimulate the development of young entrepreneurs in rural areas and their involvement in business, to strengthen economic growth and the private sector in the regions, and to invest in the chain of production and sale of agricultural products.

Program Beneficiaries: Individual entrepreneurs wishing to start a new business in the regions, ranging in age from 18-35 for men and 18-40 for women, whose founders/shareholders and the Chairman / Director (s) of the Board are men aged 18-35 and/or women aged 18-40.

Key conditions of the program: The program finances both agricultural and non-agricultural business activities. State co-financing is not more than 40% (not more than 60,000 GEL) of the investment cost of the project described in the business plan. The investment cost of the project should be at least 10,000 (ten thousand) GEL.

SECTORS, PROJECTS, AND INVESTMENTS

Program “Young Entrepreneur” - Number of projects and investments by purpose (2018-2020)

Sector	Number of Projects	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Services	36	4,144,220	1,613,710	39%
Primary agricultural Production of products	127	12,192,497	4,744,249	39%
Agricultural products Processing production	71	7,673,830	2,951,564	38%
Agricultural products Storage enterprise	6	491,715	196,686	40%
Production	1	109,595	43,838	40%
Total	240	24,611,857	9,550,046	39%

One GEL invested by the state in the form of a grant attracted an investment of 1.58 GEL.

Program “Young Entrepreneur” - Number of Projects and Investments by Purpose (2020)

Sector	Number of Projects	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Service	8	871,974	346,390	40%
Primary agricultural	16	1,733,057	641,798	37%
Production of products				
Agricultural products	14	1,823,301	683,720	37%
Processing production				
Agricultural products	1	97,311	38,924	40%
Savings enterprise				
Total	39	4,525,643	1,710,833	38%

REGIONS, PROJECTS, AND INVESTMENTS

Projects and Investments by regions (2018-2020)

Sector	Number of Projects	Total investment (GEL)	State Co-financing (GEL)
Guria	10	1,141,563	454,200
Imereti	4	338,602	135,230
Kakheti	148	14,018,048	5,454,640
Mtskheta-Mtianeti	21	2,647,667	995,579
Racha-Lechkhumi	15	1,426,355	570,542
Samegrelo-Zemo Svaneti	7	759,169	303,668
Samtskhe-Javakheti	7	1,038,746	408,896
Kvemo Kartli	11	1,575,309	578,112
Shida Kartli	12	1,142,135	441,581
Total	240	24,611,857	9,550,046
სულ	240	24,611,857	9,550,046

Projects and Investments by regions (2020)

Sector	Number of Projects	Total investment (GEL)	State Co-financing (GEL)
Guria	3	347,815	136,726
Kakheti	22	2,338,507	896,629
Mtskheta-Mtianeti	3	293,760	109,904
Racha-Lechkhumi	2	284,516	113,806
Samegrelo-Zemo Svaneti	1	85,000	34,000
Kvemo Kartli	6	961,545	333,967
Shida Kartli	2	214,500	85,800
Total	39	4,525,643	1,710,833



AGROINSURANCE PROGRAM

The goal of the "AgroInsurance" program is to develop the insurance market in the agricultural sector, to promote agricultural activities, to maintain income for those engaged in agricultural activities, and to reduce risks. The program has been implemented since 2014.

In 2020, with amendments to, perennial crops insurance, farmers have the opportunity to insure their crop for three calendar years.

Under the "Agroinsurance" program, farmers have the opportunity to insure their crops from hail, floods, storms, and autumn frosts.

Under the program, it is possible to insure no more than 5 ha of land, except for cereals, where the maximum land area is 30 ha. In the case of agricultural cooperatives, the maximum amount of the insurance premium is GEL 50,000, while the area of the insured land is unlimited.

A farmer who purchases insurance under the program will be funded for its value:

- 50% - in case of vine insurance
- 70% - in the case of all other crop insurance

INSURANCE PREMIUMS, POLICIES, AND INSURED AREAS

Program «Agroinsurance» - the number of policies, insurance premiums, and the size of the insured areas by years (2014-2020)

Year	Number of Policies	Total insurance premium (GEL)	Insured area, ha
2014	21,056	12,586,739	18,723
2015	7,634	3,444,300	4,944
2016	18,795	11,981,874	15,472
2017	21,394	11,649,283	20,718
2018	12,574	7,135,833	11,557
2019	16,473	9,583,048	13,852
2020	17,881	13,432,374	18,178
Total	115,807	69,813,452	103,442

DATA BY REGIONS

Program «Agroinsurance» - the number of policies, insurance premiums and insured areas and reimbursements by regions (2014-2020)

Region	Number of Policies	Insurance premium (GEL)	Share of the State Premium (GEL)	Area (ha)	Compensated Loss (GEL)
Adjara	24,533	5,744,907	4,303,516	7,936	6,470,406
Guria	8,938	1,783,184	1,574,255	3,163	503,899
Tbilisi	11	1,189	886	2	0
Imereti	6,359	495,786	305,456	2,151	14,107
Kakheti	45,567	36,944,842	24,107,647	53,973	25,929,892
Mtskheta-Mtianeti	289	164,975	132,315	354	13,691
Racha-Lechkhumi and Kvemo Svaneti	407	72,817	42,159	160	14,772
Samegrelo-Zemo Svaneti	8,814	2,318,733	1,725,858	6,636	1,128,546
Samtskhe-Javakheti	4,765	4,855,265	3,333,387	5,637	2,281,234
Kvemo Kartli	3,287	2,513,969	1,856,494	11,393	2,834,268
Shida Kartli	12,842	14,917,785	10,740,101	12,038	13,105,789
Total	115,807	69,813,452	48,122,074	103,442	52,296,603

Agroinsurance Program - the number of policies, insurance premiums and insured areas and reimbursements by regions (2020)

Region	Number of Policies	Insurance premium (GEL)	Share of the State Premium (GEL)	Area (ha)	Compensated Loss (GEL)
Adjara	1,347	375,909	262,757	299	17,227
Guria	93	22,598	15,810	44	2,525
Tbilisi	2	45	31	0	0
Imereti	190	48,746	33,678	131	70
Kakheti	9,745	6,870,275	3,852,891	9,747	5,527,017
Mtskheta-Mtianeti	28	12,239	8,390	37	0
Racha-Lechkhumi and Kvemo Svaneti	16	1,303	708	4	0
Samegrelo-Zemo Svaneti	684	210,996	147,697	598	13,557
Samtskhe-Javakheti	722	595,600	416,870	731	225,253
Kvemo Kartli	689	669,111	450,014	3,272	697,984
Shida Kartli	4,366	4,625,552	3,232,560	3,316	1,649,965
Total	17,881	13,432,374	8,421,407	18,178	8,133,597

STRUCTURE OF INSURANCE PREMIUMS

Agroinsurance Program - Amounts and Structure of Insurance Premiums by Years (2014-2020)

Year	Total Insurance premium (GEL)	Share of Insurance premium (GEL)	State premium share (GEL)	State premium share in the total premium (%)
2014	12,586,739	779,693	11,800,629	94%
2015	3,444,300	1,442,672	1,948,980	57%
2016	11,981,874	3,677,059	8,223,721	69%
2017	11,649,283	4,238,293	7,406,244	64%
2018	7,135,833	2,657,198	4,474,889	63%
2019	9,583,048	3,730,594	5,846,204	61%
2020	13,432,374	5,010,480	8,421,407	63%
Total	69,813,452	21,535,989	48,122,074	69%

LOSS RETIOS AND PAYMENTS

Insurance premiums by years (2014-2020)

Region	Number of Beneficiaries	Damaged land area (ha)	Compensated loss (GEL)
2014	6,395	10,210	11,296,414
2015	4,483	2,561	2,904,487
2016	6,399	6,061	6,211,368
2017	5,663	9,659	9,284,934
2018	1,619	4,849	5,645,178
2019	2,540	8,929	8,820,626
2020	2,854	9,428	8,133,597
Total	20,537	51,698	52,296,603

Premiums and Compensations Received in the Field of Agricultural Insurance in Georgia: Comparison of 2010-2012 Data with State Program.

"Agroinsurance" with the period after the start of implementation.

Year	Total insurance premium (GEL)	Compensated loss (GEL)
2010	76,933	84,805
2011	84,626	93,286
2012	93,089	956,353
2013	182,556	56,727
2014	12,586,739	11,296,414
2015	3,444,300	2,904,487
2016	11,981,874	6,211,368
2017	11,649,283	9,284,934
2018	7,135,833	5,645,178
2019	9,583,048	8,820,626
2020	13,432,374	8,133,597

EFFICIENCY

Program «Agroinsurance» - the structure of insurance payments by years (2014 - 2020)

Year	Compensated Loss (GEL)	Compensated Loss/Agency premium share (%)	Compensated Loss/Total insurance premium (%)
2014	11,296,414	96	90
2015	2,904,487	149	4
2016	6,211,368	76	2
2017	9,284,934	125	0
2018	5,645,178	126	9
2019	8,820,626	151	2
2020	8,133,597	97	61
Total	52,296,603	109	75

The efficiency of state funding in the program is high - Co-financing of the insurance premium of 100 GEL paid by the state is 108.67 GEL. Also, the state has contributed to the development of the insurance industry (income, knowledge, experience, training of specialists ...). The state has effectively transferred the agro-insurance administration function to the private sector (appropriate costs would have been significantly higher if administered by the state) - insurance companies would have reimbursed 74.91% of the premium received, which is a moderate figure for insurance practice. (The rest includes agent fees, administration costs, and profits for insurance companies).



CO-FINANCING PROGRAM OF HARVESTING AGRICULTURAL MACHINERY

The aim of the state program for co-financing of agricultural machinery is to increase access to harvesting agricultural equipment (any type of harvesting equipment, both self-propelled and trailers, except for grape harvesting equipment).

The program provides co-financing of agricultural machinery for harvesting, both self-propelled and trailers.

The amount of co-financing of the Agency in the case of agricultural machinery (combine) intended for harvesting grain per beneficiary is not more than 30% of the value, but not more than 150,000 GEL, and in the case of other types of harvesters (except grapes) in the case of agricultural machinery Not more than 150,000 GEL.

Purchased agricultural machinery must be new (not in operation).

Purpose, projects, and investments

CO-FINANCING PROGRAM OF HARVESTING AGRICULTURAL MACHINERY

Number of Projects and Investments by Purpose (2019-2020)

Purpose	Number of Projects	Total investment (GEL)	State Co-financing (GEL)	Share of the State co-financing (%)
Combine	18	6,065,836	2,327,330	38%
Other types of harvesting machinery (except for grapes)	69	7,449,796	3,528,111	47%
Other types of Agricultural machinery	89	10,080,628	4,822,217	48%
Total	176	23,596,259	10,677,658	45%

Co-financing program of Harvesting Agricultural Machinery – Number of Projects and Investments by Purpose (2020)

Purpose	Number of Projects	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Combine	5	1,839,421	471,876	26%
Other types of harvesters' technology (except grapes)	69	7,449,796	3,528,111	47%
Total	74	9,289,217	3,999,988	43%

REGIONS, PROJECTS, AND INVESTMENTS

Projects and investments by regions (2019-2020)

Region	Number of Projects	Amount of Investment (GEL)	Amount of State co-financing (GEL)
Nationwide	74	9,289,217	3,999,988
Guria	1	39,080	19,540
Imereti	1	85,930	42,965
Kakheti	74	10,709,040	4,955,113
Mtskheta-Mtianeti	3	541,350	229,840
Racha-Lechkhumi	2	193,125	96,563
Samegrelo	2	54,150	27,075
Kvemo Kartli	6	1,288,171	612,514
Shida Kartli	13	1,396,195	694,061
Total	176	23,596,259	10,677,658

Projects and investments by regions (2020)

Region	Number of Projects	Amount of Investment (GEL)	Amount of State co-financing (GEL)
Without a region*	74	9,289,217	3,999,988
Total	74	9,289,217	3,999,988

*Note: In 2020, the program did not indicate the region/municipality where the purchased equipment would be used, therefore, the regions/municipalities are not indicated in the database.



«STATE PROGRAM FOR MODERNIZATION OF THE DAIRY SECTOR AND MARKET ACCESS»

The program is implemented within the framework of the Agricultural Anti-Crisis Plan, with the financial support of the International Fund for Agricultural Development (IFAD).

The goal of the state program for modernization of the dairy sector and market access is to develop the rural economy by promoting the establishment of a competitive, diversified and sustainable dairy sector.

The program provides co-financing for the dairy sector. Starting a new business, as well as expanding / modernizing / re-equipping an existing one. Cattle insurance premium and/or fixed assets may be co-financed in the following areas: primary production of milk, milk collection point, milk processing enterprise, primary production of animal feed, veterinary medicine, and artificial insemination. The program, financed by the project costs 40% to 80% of co-financing, while the value limits range from 8,000 to 195,000 GEL.

The geographical area of the program is the following regions of Georgia: Imereti, Samegrelo-Zemo Svaneti, Samtskhe-Javakheti, Racha-Lechkhumi, and Kvemo Svaneti, Kakheti, and Kvemo Kartli.

PURPOSE, PROJECTS, AND INVESTMENTS

„State Program for Modernization of the Dairy Sector and Market Access“- number of Projects and Investments by Purpose (2020)

Purpose	Number of Projects	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (%)
Veterinary and artificial Insemination	1	51,625	40,655	79
Cattle feed primary Production	77	16,970,695	12,151,611	72
Dairy processing plant (Small size)	6	307,702	211,930	69
Primary milk production	148	4,366,305	3,223,808	74
Total	232	21,696,328	15,628,004	72

One GEL invested by the state in the form of a grant attracted an investment of 0.39 GEL.

REGIONS, PROJECTS, AND INVESTMENTS

Projects and investments by regions (2020)

Region	Number of Projects	Amount of Investment (GEL)	Amount of State co-financing (GEL)
Imereti	25	2,164,924	1,639,337
Kakheti	47	10,141,963	7,059,587
Racha-Lechkhumi and Kvemo Svaneti	4	965,246	694,050
Samegrelo and Zemo Svaneti	54	2,210,451	1,604,066
Samtskhe-Javakheti	88	3,065,742	2,260,971
Kvemo Kartli	14	3,148,001	2,369,993
Total	232	21,696,328	15,628,004



RURAL DEVELOPMENT PROGRAM

It is important for rural development to provide appropriate conditions for the creation of new jobs in rural areas, to promote entrepreneurship, economic diversification, targeted measures for agricultural development, and to attract investment in the sector. To this end, the European Neighborhood Program for Agricultural and Rural Development (ENPARD) and with the support of the United Nations Development Program (UNDP) is implementing by the Rural Development Agency (RDA).

The program aims to promote rural economic and environmental activities through co-financing.

The geographical area of the program is the following municipalities: Keda, Khulo, Borjomi, Akhalkalaki, Tetrtskaro, Kazbegi, Lagodekhi, and Dedoplistskaro.

Co-financing volume

- Agency co-financing per beneficiary is defined as not less than GEL 20,000 and not more than GEL 340,000, however, for each project submitted by the potential beneficiary, not more than 170,000 GEL, which does not exceed 80% of the total cost of the submitted project.
- For renewable energy and energy-efficient projects, which provide thermal insulation or heat / cold generation, mainly by renewable energies, the minimum amount of co-financing for the agency is 1,500 GEL, and the maximum amount is 30,000 GEL, which does not exceed 80% of the total cost of the submitted project.

PURPOSE, PROJECTS, AND INVESTMENTS

“Rural Development Program” - Quantities of Projects and Investments by Purpose (2020)

Purpose	Number of Projects	Total investment (GEL)	State Co-financing (GEL)	Share of the state co-financing (GEL)
Expansion of furniture enterprise	1	132,600	106,080	80%
Arranging camping tours	1	213,992	170,000	79%
Arrangement of a solar micro electric station	4	145,358	93,705	64%
Manufacture of polypropylene boxes	1	398,816	170,000	43%
Food facility	1	208,698	166,958	80%
Sewing	1	34,600	27,680	80%
Family Hotel	5	1,241,079	850,000	68%
Arranging a recreation area	1	163,528	163,528	100%
Hardware Service Center	1	290,298	170,000	59%
Production of wood mulch and briquettes	1	207,003	165,000	80%
Hackathon	1	20,020	20,000	100%
Total	18	3,055,991	2,102,951	69%

One GEL invested by the state in the form of a grant attracted an investment of 0.45 GEL.

REGIONS, PROJECTS, AND INVESTMENTS

Projects and investments by regions (2020)

Region	Number of Projects	Amount of Investment (GEL)	Amount of State co-financing (GEL)
Adjara	2	433,416	197,680
Kakheti	5	1,110,734	843,528
Mtskheta-Mtianeti	3	420,202	219,000
Samegrelo	1	20,000	20,000
Samtskhe-Javakheti	3	366,107	290,785
Kvemo Kartli	4	705,533	531,958
Total	18	3,055,991	2,102,951



AGRICULTURAL LANDOWNERS INCENTIVE PROGRAM

The program provides subsidies for the cost of agricultural goods and plowing services. To receive the subsidy provided by the program, physical and legal entities need to own agricultural land registered in the public register. If the beneficiary owns a total of not less than 0.25 ha and not more than 10 ha of land (s), the amount of the subsidy is set at GEL 200 - respectively, with 200 points accrued on the card in proportion to 1 ha of land, and/or if the beneficiary has co-ownership of 0.25 ha and not more than 10 ha of a land plot (s), the amount of the subsidy is determined by 200 GEL for each registered land plot in co-ownership - respectively, by 200 points accrued on the card in proportion to 1 ha of a land plot.

Points could be used to buy agricultural goods in specialized stores.

As of December 31, 2020, more than 215 thousand farmers used agro-cards within the framework of the program for incentives for agricultural landowners, 27,890,044 GEL was cashed in 446 specialized trade facilities.



AGRO-DIESEL SUPPORT PROGRAM

The program aims to support the growth of primary agricultural production, which in turn will have a positive impact on food supply and cost of production.

Physical and legal entities owning agricultural land who own at least 0.25 ha of agricultural land registered with the National Agency of Public Registry (except for pasture category) will be able to participate in the program or persons who for the first time register and specify agricultural land plots. The program provides for the transfer of fuel discount cards in the amount of 15,000 liters per hectare and more than 100,000 hectares of agricultural land for farmers benefiting from the program.

CASH COUPONS AND FILLED DIESEL FUEL

„Agrodiesel Assistance Program“ - the number of coupons paid and the amount of diesel (liters) by region (2020)

Region	Number of cash coupons	Number Diesel consumed
Ajara	13,838	317,600
Guria	19,047	488,970
Tbilisi	12,093	356,310
Imereti	45,681	1,144,200
Kakheti	102,618	3,211,170
Mtskheta-Mtianeti	12,929	341,660
Racha-Lechkhumi Kvemo Svaneti	4,897	124,840
Samegrelo-Zemo Svaneti	35,717	951,110
Samtskhe-Javakheti	16,657	456,760
Kvemo Kartli	71,795	2,164,430
Shida-Kartli	29,641	864,190
Other	67,433	1,832,750
Total	432,346	12,253,990

As of 31.12.2020, farmers who have already cashed in discount cards in total, 6.9 mln. GEL saved.



STATE PROGRAM FOR SUBSIDIZING WHEAT IMPORTS

The goal of the state wheat import subsidy program is to maintain the retail selling price of non-forage / food wheat and first-grade wheat flour.

The goal of the program is to stimulate the creation of stocks of wheat and first-grade wheat flour in the country.

The amount of the subsidy is the equivalent of not more than USD 40 per ton of wheat in national currency, under the program, a subsidy will be provided per beneficiary for not less than 2000 and not more than 40,000 tons of wheat.

As of 31.12.2020, 7 contracts have been signed with 6 companies. The total volume of the subsidized product (wheat) was 40,000 tons, while the amount of the subsidy issued by the Agency was 4,523,822 GEL.



STATE PROGRAM FOR MAINTAINING PRICES ON BASIC FOOD PRODUCTS

The goal of the program is to maintain the retail selling prices on basic food products, to stop the growth of prices for products through subsidies, and to stimulate the creation of the necessary stocks of products in the country.

BENEFICIARIES, THE TONNAGE OF GOODS, AND CO-FINANCING OF THE AGENCY

" State program for maintaining prices on basic food products" - Number of Beneficiaries, Tonnage of Goods and Co-financing of the Agency by Product Names (2020).

Product	Number of Beneficiaries	Quantity, tone	Agency co-financing (GEL)
Rice	1	1.11	339.50
Pasta products	3	264.82	51,710.78
sunflower oil	2	764.10	208,372.06
Milk flour	1	746.33	752,160.00
Sugar	3	1,151.00	134,939.25
Wheat	1	253.40	8,926.27
Total	9	3,180.76	1,156,447.86



INDUSTRIAL APPLE CROP SALES PROMOTION PROGRAM

Due to the sharp reduction of the international market price for the delivery of non-standard/industrial apples, according to the decision of the Government of Georgia, the Ministry of Environment Protection and Agriculture will implement a project to subsidize industrial apples.

Within the framework of the project, in case of purchasing industrial apples, the state subsidy will be given to the fruit processing companies, which until December 1, 2020, will purchase 1 kg of industrial apples from individuals employed in the fruit-growing sector for not less than 0.22 GEL. The Rural and Agricultural Development Agency will issue a subsidy of 0.10 GEL for 1 kg of non-standard apples.

In 2020, amendments were made to the “Preferential Agrocredit” project, as a result of which non-standard apple-buying enterprises were given loans for working capital only to purchase industrial apples. Under the subcomponent, loans could only be obtained from companies registered with the 2020 coworking rdinating headquarters set up to facilitate the smooth implementation of apple crop sales promotion measures.

Under the subcomponent, the loan amount per beneficiary ranged from GEL 1,000,000 to GEL 5,000,000, while the co-financing term of the agency was set at 12 months.

As a result, in 2020, 7 loans of GEL 7,804,000.69 were issued to non-standard apple purchasing enterprises to purchase non-standard apples only.

In 2020, the number of non-standard apples purchased by 14 enterprises as of 31.12.2020 under the program amounted to 49,978,243 kg. The subsidy amount was GEL 4,997,824.



STATE TECHNICAL ASSISTANCE PROGRAM

In the framework of the program, beneficiaries receive co-financing for the introduction of the international food safety management systems/standards and branding.

The co-financing of the Agency in the direction of food safety standards/systems was set at not more than 50%, not more than 15,000 GEL, and for agricultural cooperatives not more than 90%, not more than 25,000 GEL.

The co-financing of the Agency for branding and packaging design was set at not more than 50%, but not more than 15,000 GEL, and in the case of agricultural cooperatives, not more than 90%, not more than 25,000 GEL. Under the Technical Assistance Program, agricultural cooperatives participating in state programs are assisted in obtaining accounting services.

The program includes financing agricultural cooperatives with equipment/machinery, through which the products will be produced in the form of sales following market demand. The co-financing of the agency was set at no more than 70%, but not more than 10,000 GEL. The program also provides consulting services and training for the beneficiaries of the Agency - sharing international practices and experiences.

INTERNATIONAL FOOD SAFETY STANDARDS

A total of 49 contracts were signed in 2016-2020:

Name	Contracts
ISO 22000	34
HACCP	8
GLOBAL G.A.P	2
FSSC-22000	1
BRC	2
BIO	2

BRANDING

In 2020, 10 contracts were signed

Name	Contracts
Branding	10

CO-FINANCING THE PURCHASE OF EQUIPMENT BY AGRICULTURAL COOPERATIVES

In 2020, 1 contract was signed

Name	Contract
Equipment	1

TRAINING

A total of 749 beneficiaries were trained in 2017-2020

Training Name	Year	Number of Beneficiaries
Mandatory retraining of the program "Plant the Future"	2017-2020	608
Theoretical and practical teaching of other / formation of crop and seed crops	2020	55
Labor Safety Specialist Training Course	2020	11
GLOBAL G.A.P standard	2020	45
International Food Safety Standards (BRC, IFS and FSSC-22000)	2020	30



SUPPORT TO AGRICULTURAL COOPERATIVES

GRANTING STATUS TO AGRICULTURAL COOPERATIVES

As of December 31, 2020, 1,000 cooperatives with agricultural status have been registered. A total of 10,468 shareholders are united in cooperatives.

Region	Agricultural Cooperatives	Shareholder
Kakheti	126	1,427
Kvemo Kartli	93	893
Shida Kartli	74	695
Mtskheta-Mtianeti	50	443
Samtskhe-Javakheti	195	2,106
Imereti	115	1,216
Racha-Lechkhumi Kvemo Svaneti	85	544
Samegrelo Zemo Svaneti	95	1,701
Guria	38	494
Ajara	66	522
Tbilisi	63	427
სულ	1,000	10,468

PROGRAMS SUPPORTING DEVELOPMENT OF AGRICULTURAL COOPERATIVES

Several state programs are implemented to support business-oriented farming associations and agricultural cooperatives.

In 2012, registration was announced for programs to support agricultural cooperatives in various fields, which include the introduction of both primary and processing international and food safety systems and financial support in the promotion of the product.

State Program for Support of Beekeeping Agricultural Cooperatives - The program aims to improve the material and technical base of beekeeping farms of agricultural cooperatives and to increase the quality and quantity of honey and other beekeeping products. The state program involves co-financing of 30% of the cost as a State grant to transfer various types of skis. As a result of the registration announced in the program, 7 applications were registered.

State Program for Support of Dairy Agricultural Cooperatives - The goal of the program is to promote production of milk and dairy products in Georgia. Under the program, agricultural cooperatives registered in highland settlements will be provided with 95% co-financing for the purchase of milk processing machinery, not more than 150,000 GEL, and 90% co-financing in the rest of Georgia, not more than 150,000 GEL. As a result of the registration announced in the program, 5 applications were registered.

Viticulture Cooperative Support Program - The goal of the state program is to facilitate the processing of domestically produced grapes, including those produced by agricultural cooperatives; Establishment grape receiving-processing enterprises equipped with modern technologies within the framework of agricultural cooperatives; The co-financing of the agency includes not more than 90% co-financing for the purchase of machinery for processing at least 100 tons of grapes, not more than 500,000 GEL, and 95% co-financing in highland settlements not more than 500,000 GEL.

2016-2020		
Program	Beneficiary	State co-financing
Grape processing	26	12,400,116.90
Milk processing	27	2,928,475.80
Beekeeping	209	1,724,243.30
Total:	262	17,052,836.00

2020			
Program	Beneficiary	Amount of Investment	State co-financing
Grape processing	13	7,578,319.60	6,485,216.90
Milk processing	3	437,118.00	415,259.00
Beekeeping	7	149,000.00	109,700.00
Total:	23	8,164,437.60	7,010,175.90



WHEAT FLOUR SUBSIDY STATE PROGRAM

In response to the pandemic situation in the world wheat market and to maintain the retail price of bread for mass consumption, a state program of "flour subsidy" was implemented.

The program provided a subsidy for first-grade wheat flour to potential beneficiaries under the following conditions:

The Agency has issued a Call for Expressions of Interest in which potential beneficiaries have applied following the terms and conditions set by the Agency.

In the framework of the program, one 50-kilogram bag of subsidy for first-grade wheat flour amounted to no more than 20 GEL. As a result of the subsidy, the beneficiary was obliged to sell one 50 kg bag of subsidized first-grade wheat flour for no more than 53 GEL.

The beneficiaries of the program were identified through an expression of interest announced by the Rural Development Agency, where the participant recorded the amount and volume of the subsidy to be received, each 50 kg bag calculated on first-grade wheat flour, which was sold per the program.

The program subsidized a total of no more than 10,000 tons of first-grade wheat flour monthly.

As of 31.12.2020, contracts have been signed with 6 companies. The volume of subsidized flour specified in the contract was 19,200 tons, and the total amount of the subsidy was 3,812,000 GEL.

FARMS / FARMERS REGISTRATION PROJECT

The goal of the project is to register all persons engaged in agricultural activities throughout Georgia (except for those who engage in agricultural activities only by order of a legal entity (ies) registered in Georgia and/or concluded an employment contract), which will allow the state to own Information that will be used to select the right target groups and to plan and implement various incentive projects/programs as needed.

Implemented measures

New farms/farmers were registered in 2020 and the data of farmers/farms registered in 2018-2019 were verified. In 2019, actions were taken to improve the electronic system required for the registration of farms/farmers to make this system more dynamic and interactive. As part of these actions, the electronic module "Process and Control Management" of the company "Abaco" was introduced.

In 2020, the following results were obtained as a result of the activities carried out within the framework of the activity: In 2020, 11,793 farmers/farms were registered within the framework of the "Farms / Farmers Registration Project". The total number of registered farmers/farms since the start of the project was 134,654 units.

AGRICULTURAL EXTENSION

The main function of the Regional Services and Information-Consultation Centers (Extension Services) of the NNLP Rural Development Agency is to carry out agricultural extensions for farmers and rural people working in the agricultural sector - in office, remote, and field conditions. Extension Services, in parallel with the implementation of information-consulting activities in the field, provide information about implemented and ongoing programs/projects of the Agency.

During 2020, a total of 46,017 consultations were conducted in 9 regional offices and 45 information-consultation centers. Across Georgia, in rural areas, the number of informal meetings with the local population amounted to 3,469 units and covered 1,178 villages. Consultations were carried out in the field direction, as well as farmers were given full information about the ongoing projects of the Agency. Consultation services were provided through various means (in the office; telephone conversations; SMS messages; visits to interesting areas; group meetings with farmers in villages; meetings in public centers of the Ministry of Justice; e-mail and social networks).

Regional services and information-consultation centers organized field training in the field of agriculture and beekeeping for farmers in Kakheti, Imereti, and Samegrelo-Zemo Svaneti regions within the framework of agricultural extension, with the support of the Environmental Information and Education Center. About 500 farmers were trained.

The extension staff carried out the following activities to identify and reduce the damage caused by the spread of the new coronavirus COVID-19:

- Record prices and supplies of primary consumption food products according to region/municipality daily.
- Problem registration - identification.
- Facilitating with the relevant agencies to ensure the movement of farmers to ensure the smooth implementation of agricultural work.
- Connect farmers and buyers to facilitate the sale of harvested products.

During the pandemic, 24-hour shifts at checkpoints of closed municipalities (Marneuli, Mestia) and accounting of imported/exported agricultural products.

Operational data for 2020 were collected and processed:

- 2020 crop forecast for cereals and legumes.
- Harvesting calendar.
- Spring plowing-sowing registration.
- Natural Disaster accounting.
- Accounting for the harvest and sale of peaches and nectarines.
- Crop harvest registration.
- Grape harvest registration.

From May 2020, the extension staff participated in the implementation of the "Agrodiesel Support Program".

From August 2020, the staff of the Department of Regional Relations participated in the 2020 Grape Harvest Work Headquarters, and from September to the end of the year, extension staff across the country were involved in the 2020 Industrial Apple Crop Sales Coordination Headquarters to fully facilitate the work process.

With the support of the Food and Agriculture Organization of the United Nations (FAO):

- Special uniforms have been purchased for regional services and information-consultation centers.
- To raise farmer awareness and communicate state-of-the-art technologies, an integrated network of demo plots was created and transferred to RDA;

MEPA e-library (elibrary.mepa.gov.ge) was upgraded and transferred to RDA. Now anyone interested can have access to a wide range of works in agriculture and environmental protection, a map of demo plots, a schedule of events, and news about successful projects (success stories).

With the support of the United Nations Development Program (UNDP)

- To promote extension services, a viral video describing the major activities/services that RDA employees offer to those interested in the agrarian sector was produced.
- Regional services and information-consultation centers have launched the new platform (regions.mepa.gov.ge) to make extension services more accessible, faster, and needs-oriented;

Adequate extension kits (with electronic tools), office furniture, and equipment have been purchased for Guria, Samegrelo-Zemo Svaneti, Samtskhe-Javakheti, Racha-Lechkhumi, and Kvemo Svaneti Regional Services.

FULFILLMENT OF OBLIGATIONS BY THE RURAL DEVELOPMENT AGENCY UNDER THE FOURTH PHASE AGREEMENT OF THE EUROPEAN NEIGHBORHOOD PROGRAM FOR AGRICULTURE AND RURAL DEVELOPMENT (ENPARD IV)

On November 23, 2020, the fourth phase of the European Neighborhood Program for Rural and Agricultural Development (ENPARD IV) was launched.

By the end of 2020, the following goals should have been achieved by the Rural Development Agency and the National Food Agency:

1.0 Indicator - ENPARD for food safety

Objective: 15 Existing agricultural product storage enterprises must meet general hygiene standards.

In 2017-2019, there were 33 storage farms/enterprises in various stages of implementation. By the end of 2019, several of them were still under construction, and some were under completion. To evaluate the presented indicator, for the purpose to determine the observance of the minimum hygienic standards by the NNLP "Rural Development Agency" LEPL "National Food Agency" data from 23 operating storage enterprises were sent for verification.

As a result of this state control, by the legislation of Georgia, 20 inspected business operators (storage enterprises) fully met the requirements of hygienic standards (out of 23 business operators could not be inspected due to various reasons).

2. 2.0 Indicator - for ENPARD Sustainability

Objective: 700 units of preferential agro credits for current assets in the total amount of not less than GEL 10,000,000 under the new sub-component (COVID-19) initiated by the Ministry of Environment and Agriculture within the framework of the preferential agro-credit project (priority - primary agricultural products)

According to Government Decree No. 720 of April 24, 2020, a new sub-component of financing annual crops (part of the COVID-19 Anti-Crisis Plan) has been established within the framework of the Preferential Agro Credit project. More than 2,900 loans have been issued under the new component, with a total amount of over GEL 57,000,000.

As of December 31, 2020, both indicators have been met.

STATISTICS OF PROJECTS/PROGRAMS OF NNLP “RURAL DEVELOPMENT AGENCY” IN TERMS OF GENDER

2020 statistics of projects/programs by gender as of December 31, 2020

Name of the project/program	Number of agreements/ number of loans issued by the bank / Number of policies issued by insurance companies		Number of unique beneficiaries		Co-financing (GEL)		Total investment volume/loan amount issued by the bank / Cost of insured harvest (GEL)		Area (ha)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Preferential agro-credit project	5,659	848	5,073	788			209,130,562	39,398,968	-	-
State program "Plant the Future"	713	218	676	219	14,162,675	5,121,650	21,117,388	7,595,856	1,284	424
"Agricultural Modernization, Market Access and Flexibility (AMMAR)" Co-financing Program	93	15	93	15	1,496,909	306,647	3,744,433	766,618	-	-
Rural Young Entrepreneurs Support Program - "Young Entrepreneur"	18	21	18	21	799,867	910,965	2,152,772	2,372,871	-	-
Agricultural Machinery Co-financing Program	43	7	42	7	1,693,397	354,104	3,928,516	874,043	-	-
Agricultural insurance program	14,462	3,254	7,114	1,942	6,570,409	1,532,733	126,585,567	29,341,119	13,943	3,454
State program for support of Agriculture	280	55	274	54	6,542,600	1,588,574	12,911,121	4,105,069	-	-
Rural Development Program (UNDP)	3	2	3	2	446,080	34,705	570,054	39,536	-	-
State Program for Modernization of the Dairy Sector and Market Access (DIMMA)	197	26	196	26	12,545,899	1,505,240	17,620,020	1,941,089	-	-

Note: In the case of a preferential agro-credit project, the co-financing column in the table shows the co-financing issued by the agency, and in the case of other projects/programs, the co-financing specified in the contract is given.

INFORMATION DEPARTMENT OF THE RURAL DEVELOPMENT AGENCY

The Information Department of the NNLP “Rural Development Agency” (Hotline 1501/153) serves those interested in the activities of the Ministry of Environmental and Agriculture and its agencies, provides them with first-time consultations, and provides information 24 hours a day, both by telephone and through online service.

As of 2020, telephone service was provided to 143,058 stakeholders and online service to 40,849 stakeholders.

In 2020, the Information Department acquired the acquisition/introduction of a modern standards software contact center, as a result of which the telephone / online service is provided to the stakeholders more efficiently

The hotline provided telephone services to a total of 482,467 stakeholders, while the online service provided a total of 60,205 stakeholders.

*Note: *From 2013 to 2016, the hotline served only the NNLP «Rural Development Agency», from 2016 to 2019 served only the Ministry of Environment and Agriculture and its agencies, and from 2019 the Ministry of Environmental and Agriculture and its Agencies.*

*** Online chat from 2014 to 2016, the online chat served only the NNLP «Rural Development Agency», from 2016 to 2020 it served only the Ministry of Environmental and Agriculture and its agencies, and from 2020 the Department of Environmental Supervision was added.*

IMERETI AGROZONE

In 2020, the first phase of the Imereti Agro Zone Greenhouse Cluster Development Project was completed.

The Government of Georgia has allocated 220 hectares of land in Tskaltubo and Baghdadi municipalities for the implementation of the Imereti Agrozone Greenhouse Cluster Development Project. A complete geological, geodetic, and engineering study of the mentioned land plots was carried out for the development of greenhouses; the general plan of the infrastructure part of the project was created (access and internal roads; electricity and natural gas supply; irrigation, drainage and sewerage systems, etc.).

Imereti Agrozone Greenhouse Cluster offers international and local stakeholders the opportunity to invest in high, medium, and low technology greenhouses, logistics and sales centers, processing enterprises, and other supplementary activities.

The second phase of the project will be implemented in 2021, which includes the following:

- An expression of international interest will be announced in March 2021 to research potential investors.
- In the autumn of 2021, according to the results of the expression of interest, the Request for Proposals will be announced by the Public Procurement Law, which aims to select investors and settle relevant agreements..

PROGRAMS/PROJECTS IN DEVELOPMENT

Programs are in the process of being developed that include supporting packaging producers and enhancing the agricultural potential of fish farming on Paravani and Saghamo lakes and promoting wheat production through supporting agricultural cooperatives.

It is planned to implement the program "Support to Forest Sector Reform through the Promotion of Energy Efficient Measures" with the involvement of Accredited German Society for International Cooperation (GIZ) and various agencies of the Ministry of Environmental Protection and Agriculture of Georgia, including NNLP "Rural Development Agency".

It is planned to implement an integrated development program in four pilot regions: Kakheti, Racha-Lechkhumi Kvemo Svaneti, Imereti, and Guria; the goal is to create a favorable environment and balanced sustainable socio-economic development through integrated territorial development initiatives.



NATIONAL WINE AGENCY

The main activity of the LEPL National Wine Agency is to promote the development of viticulture and winemaking. To achieve this goal, the National Wine Agency implements the following programs:

- Development of viticulture;
- Promotion of Georgian wine;
- Vintage promotion activities;
- Research and popularization of Georgian vine culture;
- Development of the system of protected designations of origins (PDO) of Georgian wine;
- Laboratory research of wine.

National Wine Agency

In 2020, the COVID-19 virus pandemic had a significant impact on the wine industry. Reduced exports to international markets and the downturn in the domestic tourist season have posed new challenges for the industry.

It is noteworthy that despite the difficult epidemiological situation in the country, the LEPL National Wine Agency did not delay the technical and technological procedures for wine exports, and the marketing of international complex strategic wine markets was replaced by remote and online formats.

Despite all the challenges, Georgia is one of the countries that has successfully overcome the difficulties in the viticulture and winemaking sector in 2020.

In addition, 2020 was important for the viticulture and winemaking sector of Georgia in several directions::

ANOTHER INTERNATIONAL RECOGNITION OF GEORGIAN WINE

In 2020, one of the main successes in the wine industry was the addition of Georgian technology wine to the list of special wines of the International Organization of Vine and Wine (OIV).

The General Assembly of the OIV decided to include the wines made by Georgian technology - "Wines made on wine dregs (Chacha) through long maceration" in the list of OIV special wines on November 26, 2020.

So far, only 7 wines had been included in the OIV list of special wines: "sparkling wines", "carbonated wines", "fortified wines", "liqueur wines", "sweet wines with residual sugar derived from grapes", 'icewine', "flor or film wines". The wine fermented on dregs through long maceration has become the 8th wine on the list.

The proposal of the International Organization of Vine and Wine to include Georgian "Wines made on wine dregs (Chacha) through long maceration" to the OIV list of Special Wine categories was accepted in 2017 and as a result of numerous workgroup meetings and discussions, the final decision was made.

The corresponding information will be included in the International Code of Oenology Practice. Customers and the jury members at contests will be updated on special characteristics of wines of this category.





VINTAGE 2020

In the context of the COVID-19 pandemic, one of the biggest challenges was the smooth running of the vintage 2020 and the accommodation of the excess grape harvest. At the same time, the main goal of the state was to maintain the positive dynamics of stable development of the wine industry in recent years.

The vintage coordination headquarter was opened in Telavi on August 25. Against the background of the existing challenges, by the decision of the Government of Georgia, the vintage 2020 was subsidized.

The wine company, which purchased at least 1000 tons of Rkatsiteli or Kakhuri Mtsvane grapes grown in the Kakheti region, was subject to the subsidy. At the same time, not less than 0.80 GEL was paid per 1 kg of purchased grapes. When purchasing 1 kg of grapes, subsidies were issued to wine companies: 1 kg for Rkatsiteli and 1 kg for Kakhuri Mtsvane - 0.30 GEL.

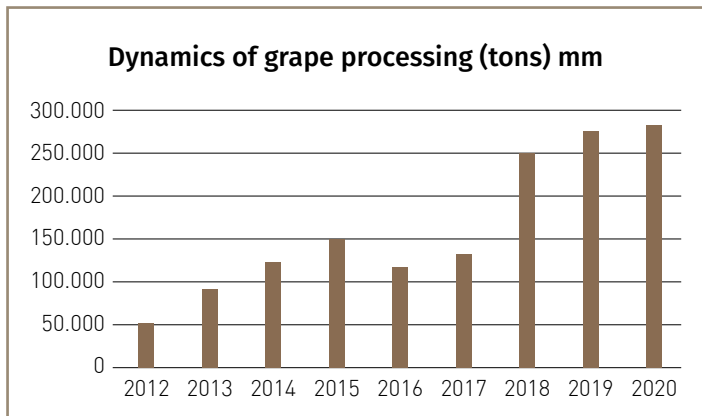
Thus, thousands of viticulturists were given the opportunity to sell 1 kg of Rkatsiteli for 80 tetri. Without the state subsidy, due to the market demand, farmers would have had to sell 1 kg of Rkatsiteli for 50 tetri, which could not cover even the cost prices.

In addition, state-owned enterprises purchased surplus grapes from growers, which were not in demand by the private sector. Without this support, up to 10 thousand viticulturists would not be able to sell up to 94 thousand tons of grapes.

As a result of state support, it became possible to fully accommodate the record grape harvest of 284 thousand tons in the last 30 years. Up to 25 thousand grape growers handed over the grapes to the wineries. They received more than 310 million GEL as income.

More than 300 large, small, and medium-sized wineries were involved in the grape processing process.

During the current vintage in the Racha-Lechkhumi region, where a vintage coordination headquarter was also opened in the town of Ambrolauri, ampelographers monitored the grapes at all grape receiving points to ensure the varietal accuracy and quality of the Khvanchkara PDO. In addition, special block posts were arranged at the entrances of



the region to prevent grapes from being imported from other municipalities and mixing in Mujuretul / Aleksandrouli. In Ambrolauri municipality, 20 grape delivery points were opened at various locations, which enabled the population to deliver their crops in a timely and smooth manner.

During vintage 2020, there was processed: · 175 thousand tons of Rkatsiteli; · 80 thousand tons of Saperavi; · 5 thousand tons of Kakhuri Mtsvane; · 2400 tons of Aleksandrouli and Mujuretuli; and rest of different varieties of grapes.

It should be noted that in 2020, during the vintage period, the National Wine Agency employed students living in the Kakheti region as operators in wineries.

- 120 students were selected as a result of interviews conducted in educational institutions of different municipalities of Kakheti. For the selected candidates, the vintage accounting program trainings were conducted by the relevant specialists of the Ministry of Environmental Protection and Agriculture at the vintage coordination headquarters. The vintage recording program has been operating in the country since 2013. The program provides complete information and accurate data on delivered grapes. This program contributes to the transparency of the grape delivery process, which is important for the production of high-quality wine. Part of the selected young people had similar work experience from the vintages of previous years.

PROMOTION OF GEORGIAN WINE

To enhance the export potential of Georgian wine in the international strategic markets, in the background of the global pandemic, marketing activities continued in a remote format, via online tastings and various online platforms. Advertisements on online wine retail websites and applications, TV and radio stations have been activated, Georgian wine promotion pages have been created on various social media, etc.

It should be noted, that "Small Cellars Assistance Program", under which up to 1,500 bottles of wine produced by tens of small cellars affected by the pandemic were transported to various countries around the world.

As a result of these activities, the growth trend of Georgian wine exports to strategic markets (USA, Poland, Great Britain) is maintained.

In 2020, 42 tastings / seminars were held in the strategic markets of Georgian wine, both online and in direct format.

Among the events held in 2020 the following activities are worth mentioning:

VISIT OF MONACO SOMMELIERS

In the second half of January, members of the Monaco Sommelier Association visited Georgia. The group included chefs of the best restaurants in Monaco, which is very important for the promotion of Georgian wine in the Monaco wine market. During the visit, the sommelier got acquainted with Georgian wine in about 10 wine cellars in Kartli and Kakheti. The guests from Monaco were accompanied by a 7-member group of journalists.

VINEXPO PARIS 2020

Georgian wine companies participated in the VinExpo Paris International Wine and Spirits Exhibition held in Paris, France on February 10-12. Presenting Georgian wine at such exhibitions is crucial for finding new trade partners and diversifying markets. Within the framework of the exhibition, a Georgian wine master class was held by the famous British wine writer Andrew Jefford for wine professionals.

„VINEXPO NEW YORK 2020“

Georgian wine companies participated in the Vinexpo New York International Wine and Spirits Exhibition held in New York on March 2-3.

With the support of the National Wine Agency, 12 companies from Georgia have been given the opportunity to present their products on the world's largest wine market, which is an important precondition for attracting new trading partners and increasing exports. Within the framework of the exhibition, the National Wine Agency contractor American marketing company "Mark Energy" organized Georgian wine tasting for wine professionals, representatives of the wine business and media.

THE FOURTH PITCHER WINE COMPETITION

On July 10, the fourth international Qvevri wine competition was held. The aim of the competition is to present the best Qvevri wines, to promote the production and sale of Qvevri wines. Giorgi Dakishvili, Honored Winemaker of Georgia, was the chairman of the jury of the competition.

The winning wines will be sent to online tastings in various European countries, which is especially important in the background of the difficulties caused by the pandemic in the wine industry.

The competition was organized by the Georgian Wine Association with the support of the National Wine Agency. 460 wine samples were presented at the competition, which is 3 times more than the number of wines at the first competition. This indicates the great interest of the winemakers in the competition.

THE THIRD GEORGIAN WINE FORUM IN THE USA

On November 11, the Georgian Wine Forum was organized by the National Wine Agency and the US-Georgia Business Council for the third time, this time online.

The Minister of Environmental Protection and Agriculture, Levan Davitashvili, participated in the forum remotely. The Minister participated in a scientific webinar held within the framework of the Georgian Wine Forum, which was dedicated to the 8000-year history of Georgian wine and the unique culture of winemaking. In parallel with the history, genetics and traditions of Georgian wine, the participants discussed the current situation in the Georgian wine industry, the contribution of the sector to the development of the country's economy, its potential and prospects, as well as the Georgian wine marketing strategy in the United States before and in the background of the World Pandemic.



Georgian Wine Forum is initiated by the American-Georgian Business Council. The first forum was hosted in 2018 by Washington and last year by Boston at Harvard University.

EXPORT OF WINE AND SPIRITS

According to the National Wine Agency, in 2020, up to 92.4 million bottles (0.75 l) of wine were exported from Georgia to 60 countries, which is 1% less than in 2019. The value of exported wine reaches 216.5 million US dollars, which is 9% less than the same data for 2019. The decline in revenues was due to the decline in the average selling price of wine in the global market, which in turn is related to the challenges of the global pandemic.

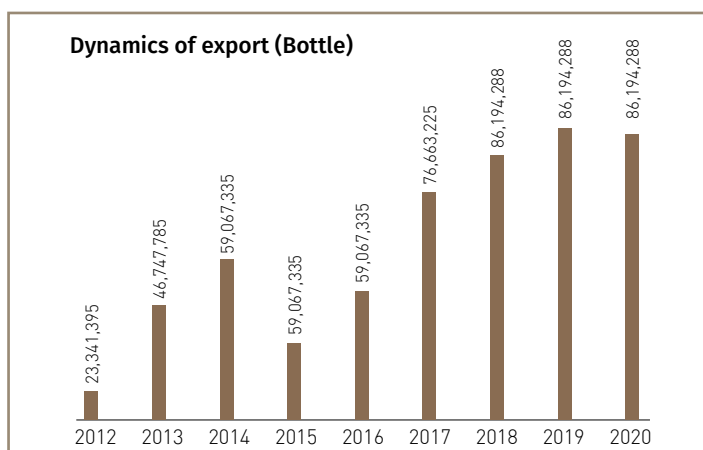
Exports increased in the strategic markets of Georgian wine: Poland - 27% (5 226 366 bottles), USA - 34% (911 931 bottles) and UK - 154% (428 796 bottles). Due to the global coronavirus pandemic, there was a decrease in the Chinese market, where 4,605,768 bottles were exported (a decrease of 35%).

The growth is also significant in the following countries: Ukraine - 4% (10,660,884 bottles), Belarus - 32% (3,677,769 bottles), Latvia - 7% (1,598,455 bottles), Germany - 4% (697,697 bottles), Canada - 16% (188,286 bottles), Azerbaijan - 32% (183,164 bottles), France - 22% (183 164 bottles), South Korea - 353% (89 394 bottles), etc.

At the same time, 32.7 million bottles (0.5 l) of the brandy were exported, which is 4% more than the same indicator of 2019. Revenues from brandy exports amounted to \$ 66 million (down 3%). 428 thousand bottles (0.5 l) of Chacha were exported, the decrease of export amounted 31%. Revenues from Chacha exports is \$ 1.2 million (31% decrease).

The largest number of exported wines of PDO is "Kindzmarauli" - 18 676 195 bottles, followed by "Tsinandali" - 4 458 503 bottles, "Mukuzani" - 4 140 627 bottles, "Akhsheni" - 1 344 052 bottles, "Khvanchkara" - 987 530 bottles, "Tvishi" - 254 736 bottles, "Kvareli"- 120 318 bottles, "Napareuli" - 100 695 bottles, etc.

Exports of wine, brandy, Chacha, brandy alcohol and brandy on tap amounted \$ 336 million, 5% less comparing to the same period last year



QUALITY OF GEORGIAN WINE

In order to produce wine competitive with local and international markets, the following technical regulations were amended in 2020: "On the definition of General Rules for the Production of Wine and the List of Permitted Processes, Materials and Substances" and " On definition of General Rules for the Production of Grape Alcoholic Beverages and Permitted Processes, Materials and Substances".

These changes are intended to determine the ratio of different parameters and are important to detect possible falsifications. The determination of the carbon stable isotope ratio parameter is of particular importance.

The changes in the technical regulations for 2020 also provide for the determination of the ratio of glucose and fructose in the composition of grapes in the process of alcoholic fermentation. This determines whether the semi-sweet wines of the PDO are naturally or artificially sweetened. The sucrose content in semi-dry, semi-sweet and sweet wines is also important, which determines whether a syrup made from sugar (sucrose) was used to artificially sweeten the wine.



INSPECTION CONTROL

In order to control the quality of wine and spirits, the National Wine Agency has inspected export products from 210 companies since the beginning of the year, from which 450 samples were taken. The certificate was denied in 12 cases. State supervision and state control was carried out in 50 companies, from which up to 2000 samples were taken. To organoleptic testing of alcohol, 253 tastings were conducted in the reporting year. A total of 9702 samples were submitted..

TESTING

To organoleptic testing of alcohol, 253 tastings were conducted in the reporting year. A total of 9702 samples were submitted, of which 454 were assessed negatively, the rest positively.



CERTIFICATION

A total of 10,248 applications were submitted for certification to obtain export documentation. Based on the submitted applications, various documents were issued:

Form VI-1 certificate / for EU countries / - 7 105 pieces; Certificate of Conformity - 8 855 pieces; A total of 15,960 certificates have been issued to various alcohol companies by the Certification Division of the National Wine Agency.

PROGRAM TO PROMOTE THE DEVELOPMENT OF THE SYSTEM OF APPELLATIONS OF ORIGIN FOR WINES IN GEORGIA AND THE PROTECTION OF THE DESIGNATIONS OF GEORGIAN WINES

In 2020, four wines were added to the protected geographical appellations of origin registered in Georgia:

"Salkhino Ojaleshi", "Akhmeta", "Tsarafi" and "Akhoebi". This fact indicates the diversity and uniqueness of Georgian wine and is especially important in terms of its popularity, awareness, and growth of export potential.

At this stage, 24 PDOs are registered at the Georgian National Intellectual Property Center "Sakpatenti": "Kindzmarauli", "Manavi", "Kakheti", "Napareuli", "Teliani", "Mukuzani", "Tsinandali", "Akhasheni", "Gurjaani", "Khvanchkara", "Ateni", "Sviri", "Vazisubani", "Kardenakhi", "Tibaani", "Tvishi", "Kvareli", "Kotekhi", "Khashmi Saperavi", "Bolnisi", "Salkhino Ojaleshi", "Akhmeta", "Tsarafi" and "Akhoebi".

In 2021, the National Wine Agency LEPL will continue to work on adding new wines to the list of PDOs within the framework of the program "promoting the development of the Georgian PDO system and the protection of Georgian wine designations".

VINEYARD CADASTER PROGRAM

In 2020, the following works were carried out within the framework of the "Viticulture Development Measures" sub-program:

- Tender documents were prepared on the collection of cadastral information of the declared vineyards in Sighnaghi, Dedoplistskaro, Lagodekhi and Sagarejo municipalities.
- Information on vineyards in Kvareli and Gurjaani municipalities was updated in the vineyard cadaster database.
- Based on the updated Georgian vineyard database, the 2020 vintage was conducted in Kindzmarauli, Kvareli, Mukuzani and Akhasheni areas of origin in Gurjaani and Kvareli municipalities, which includes a total of 16.5 thousand hectares of vineyards.
- The database used for the cadaster was updated and the information was upgraded in the format of contacts with Abaco experts and viticulturists.
- In collaboration with Martin von Wyss, Georgia's viticulture zones and wine regions of origin of PDO were placed on an interactive map of the World Wine Regions available at: <https://worldwineregions.com>.

THE FIRST REGIONAL REPRESENTATION OF THE AGENCY

Representation of the National Wine Agency was opened in Telavi. Kakheti Service staff will provide the necessary consultations to viticulturists and winemakers; This will facilitate communication between the agency and wine companies, the vast majority of which are in the Kakheti region. In the framework of the current viticulture cadaster program in Kakheti region, it became possible to receive services in the city of Telavi. Kakheti service center of the National Wine Agency ensures constant updating and improvement of the vineyard cadaster data.

RESEARCH ON GEORGIAN VINE AND WINE CULTURE

In 2020, a manuscript of the article entitled "Vine and Wine Culture in Georgia: A Scientific Project of the National Wine Agency" was drafted. This article was submitted to the National Agency for Cultural Heritage Preservation for publication in a collection dedicated to Mtskheta; Archaeobotanical analysis of vines obtained during the historical excavations in Rustavi was carried out by the project participant Laurent Bouby (University of Montpellier, France). Scientific article was published: Bouby L., Wales N., Jalabadze M., Rusishvili N., Bonhomme V., Ramos- Madrigal J., Evin A., Ivorra S., Lacombe T., Pagnoux C., Boaretto E., Gilbert MTP, Bacilieri R., Lordkipanidze D., Maghradze D. 2020. Trashing the history of grapevine cultivation in Georgia by combining geometric morphometric and ancient DNA. *Vegetation History and Archaeology*. First publication 20.10.2020. 16p.4.



NATIONAL
FOOD
AGENCY



NATIONAL FOOD AGENCY

The National Food Agency operates in accordance with the strategy defined by the Ministry of Environment and Agriculture, whose priority areas are:

- Improving the market situation and introducing modern food safety standards and regulations.
- Exercising state control based on trust and justice.
- Protecting the country from various animal diseases and maintaining epizootic well-being.
- Protecting agricultural crops from plant pests.
- Cooperating with international organizations.

In 2020, the European Commission positively assessed Georgia's state control system and added Georgia to the list of third countries from which domestic animals (dogs, cats) can enter the EU.

As a result of legislative changes and veterinary measures in recent years, at the end of 2020 another batch of Georgian honey (10 tons) entered the EU market.

NATIONAL FOOD AGENCY

NATIONAL FOOD AGENCY IN THE FACE OF A PANDEMIC

The situation created by the pandemic in 2020 posed new challenges to the National Food Agency. In addition to its core activities, which include maintaining a safe food supply, protecting animal health and performing the country's veterinary safety and plant protection measures. The Agency has been actively involved in actions against the spread of COVID-19.

- As soon as the virus was detected in the country, business operators (public catering establishments, markets, etc., a total of 5,520 facilities) were informed about relevant requirements and restrictions. In ten regions and the capital of Georgia, prices of 17 items of food and hygiene items supermarket chains were monitored constantly.
- Special attention was given to public catering facilities in quarantine areas. State control was carried out in the kitchens of 53 hotels allocated for quarantine purposes. Drinking water samples were taken for laboratory examination.
- To avoid the risks of COVID-19 spread, large-scale rehabilitation and repair works were carried out at about 90 agrarian markets throughout Georgia. Market administrations and staff, under the supervision of Agency inspectors, ensured waste removal from the areas, upgraded infrastructure and inventory, and carried out paving and cleaning. As a result, the sanitary-hygienic condition of the facilities and the safety norms related to COVID-19 have been improved. Relevant divisions of the Agency monitored the ongoing processes 24 hours a day.
- The Agency was involved in the process of issuing permits for movement (including during curfew) for the smooth operation of vital facilities during an emergency. Tens of thousands of applications were reviewed, out of which 3158 business operators, 15 769 citizens and 10 414 vehicles were eligible for a permit a permit.
- The Agency, with 80 units of specialized equipment, participated in the disinfection of quarantine zones, border checkpoints and cities.
- During the state of emergency, from February 25 to May 31, 2290 inspections were carried out (1364 planned, 146 unplanned).

Compliance with the issued instructions was checked at 780 business operators, 1251 business operators had undergone documentary checks (examination). 53 samples taken from foodstuffs of various denominations (appellations) were taken for laboratory research. Supervision was carried out 50 business operators. As a result, in accordance with the Food/Feed Safety, Veterinary and Plant Protection Code, 518 administrative violations were detected during the official food safety controls.

- In Svaneti region, during the state of emergency declared in connection with COVID-19, the inspectors of the Agency monitored 522 venues.
- Despite the quarantine announced in Kvemo Kartli region, Marneuli and Bolnisi municipalities, the Agency veterinarians conducted veterinary activities without interruption, including: door-to-door vaccination of animals against various infectious diseases provided by the state program, identification-registration, treatment of small and large ruminants at veterinary surveillance points against external parasites.



FOOD SAFETY

To ensure compliance with food safety requirements and protect consumer, 23,403 official control measures were implemented in 2020:

- 13,916 inspections (planned 6433; unscheduled 699; verification 6784); Animal and poultry slaughterhouses were inspected; as well as producers of: milk and dairy products, meat and meat products, fish and fish products, semi-finished products, bread and bakery products; Public catering (restaurant, ready meals, kebab venues, fast food); Kindergarten and school kitchens; Grocery stores and markets; Drinking water supply companies; Hazelnut processing plants, etc.
- 4562 samples were taken for laboratory research within the scope of monitoring.
- 4478 documentary checks at business operators of various profiles.
- 447 supervision measures (monitoring activities of business operators for preventing placement of such food on the market, that does not comply with the legislation; recall/withdrawal of food already placed on the market, following the instructions issued by the Agency and disposal of food);
- 2285 administrative violations were detected.
- 189 business operators have been granted conditional (provisional) approval.

In 2020, the Food Safety Department received 835 notifications (including suspected food poisoning), as well as as well as 19 responses from the European Commission's Directorate-General for Health and Food Safety (DG SANTE) through the European Commission's RASFF Rapid Alarm System.

The Food Safety Department cooperates with the Border Department of the Revenue Service pertaining to the control of imported food. Upon detection of Salmonella in imported cargo, an appropriate entry is made in the electronic database/register. Based on samples taken at customs, in case of violation, the risks of contaminated (microbiological, chemical) food are managed, and its removal/recovery/processing/destruction is supervised.

Based on applications submitted by business operators, documents required to obtain hygienic certificates were promptly reviewed. 1506 hygienic certificates were prepared and issued, as well as: 69 Certificates of Conformity Assessment were issued based on the results of the official food safety controls (inspection); 21 certificates of approval; 318 veterinary certificates for the export of food of animal origin. The issued certificates were distributed as follows: for meat and meat products - 134; for milk and dairy products - 19; for fish and seafood - 78; honey - 10; other - 77. 237 consultations were given by authorized persons.

Meetings were held with business sector, including in regions, on principles of the Hazard Analysis and Critical Control Points (HACCP) system and planned legislative changes that came into force on 1 January 2021.

The Department of Food Safety, based on WHO and FAO guidelines, has developed recommendations for catering establishments.

In this regard, meetings were held with the Labor Inspection Department of the Ministry of Health, the jointly agreed recommendations were drafted and approved, the implementation of which was entrusted to business operators.

Guidelines have been developed for Agency's inspectors, outlining general recommendations for public catering establishments. Business operators were consulted by authorized persons of the Department (by phone, online).

ENSURING VETERINARY SAFETY



To maintain and control epizootic welfare in the country, the Veterinary Department of the National Food Agency carried out following measures:

Vaccination of animals:

- 2,147,939 animals infected with the disease have been vaccinated against foot-and-mouth disease (FMD), including: 878,802 large and 1,269,137 small ruminants.
- Against anthrax - 1,142,649 animals, including: 441,107 large ruminants, 697,129 small ruminants and 4,413 cattle.
- Against rabies - 279,310 dogs and cats.
- Against lumpy skin disease (LSD) of cattle - 380 249 cattle.
- Against brucellosis of cattle - 128 477 cattle.
- Against smallpox - 82 219 cattle.
- Against the peste des petits ruminants (PPR- 267 554 small ruminants.
- Against sheep and goat pox - 1050 small ruminants.

(The World Organization for Animal Health (OIE) has positively assessed the measures taken by the National Food Agency against rabies and highlighted the progress made (<https://rr-europe.oie.int/en/news/rabies-control-in-Georgia>).

Sero-monitoring:

- Detection of post-vaccine antibodies for brucellosis - 300 samples.
- Detection of post-vaccine antibodies for rabies - 100 samples.
- Detection of FMD unstructured protein (NSP antibody) - 4,000 samples.
- Detection of FMD structural protein (SP antibody) - 500 samples.
- Detection of smallpox/post vaccine antibodies - 100 samples.
- Sheep catarrhal fever antibody detection - 500 samples.
- 10 100 cattle were examined on tuberculosis (tubercularizing).

Treatment:

- 7,490 heads of cattle were treated with insecticidal acaricide against Crimean-Congo hemorrhagic fever during epidemiological outbreaks. To raise public awareness, 10,000 information booklets were distributed; in villages, posters were placed in conspicuous places.

Animal Identification-Registration

To ensure animal health controls, recording, traceability, as well as to promote labeling and transparency, animals are identified and registered, which is a process accompanying cattle vaccination.

- According to preliminary data, 408,416 heads of large ruminants, 209,162 heads of small ruminants and 3,091 pigs have been identified in 2020.
- With the involvement and supervision of the Veterinary Department, the regional divisions were provided with means for identification and support equipment.
- With the support of FAO, a pilot project for RFID earrings for small ruminants is planned to be implemented in the target municipality by 2021.
- A draft rule on identification and registration of bees and beehives was developed, which was introduced to the stakeholders through the Agency's working group.

Registration and control of veterinary medicinal products (VMPs)

313 veterinary medicinal products were submitted for registration. 275 VMPs were registered.

In 2020:

- 188 veterinary medicinal products were purchased, and tested at laboratories for the purposes of quality monitoring. Based on information received, 25 unscheduled inspections were carried out. 12 business operators were fined.
- State control was carried out at 450 venues subject to veterinary control (veterinary clinics, pharmacies, animal shelters, pet shops).
- 7 services carrying out veterinary activities and sheltering animals were inspected and registered.
- 790 samples of biological fluids and tissues taken from 295 animals were examined for substances and their residues in live animals.
- 5 samples were taken for laboratory research of domestic animals and processed food of animal origin.
- To test substances banned in water and fish (malachite green and leucomalachite green), 11 and 87 fish samples respectively were taken and tested.

Veterinary and sanitary supervision

The operation of veterinary surveillance (biosafety) points is important for controlling animal health and movement on seasonal pastures. There are currently 6 points operational in the country (3 in Kvemo Kartli and 3 in Kakheti region), where in 2020, 801 307 large and small ruminants were treated with insecticidal preparations.

Veterinary supervision was imposed on a total of 22,445 animals capable of biting humans.

Export

The Agency inspectors issued 3,558 veterinary certificates for export of live animals and veterinary controlled goods.

Exported from Georgia in 2020:

- 75 335 large and 189 463 small ruminants;
- 5,488,460 day-old chickens;
- 8 097 320 hatching eggs;
- 98,933 kg of leather;
- 663 005 kg of wool;
- 64 804 716 kg other veterinary controlled cargo.

ENSURING PHYTOSANITARY WELL-BEING



In 2020, the Plant Protection Department of National Food Agency conducted large-scale measures to reduce damage to crops. An area of 80,352 hectares was treated against locusts, a particularly dangerous plant pest, and an area of 3,900 hectares against beet moth.

In accordance with the Decree № 931 of the Government of Georgia of June 5, 2020, in Kakheti region 17,280 hectares of land were treated against mosquitoes with the special Agency equipment.

Measures taken against Brown Marmorated Stink Bug.

Despite restrictions imposed by COVID-19, measures against Brown Marmorated Stink Bug were carried out smoothly and according to plan.

- 6079 monitoring pheromone traps have been installed since spring 2020 to determine the area of pest distribution, its development phases, population dynamics and timing of measures; The start dates and venues for the measures were determined based on the results obtained.
- Measures against Brown Marmorated Stink Bug were carried out by the National Food Agency in compliance with relevant environmental norms and safety measures. Up to 325,700 hectares have been treated in 471 administrative units of 33 municipalities in western Georgia.

Measures against the Brown Marmorated Stink Bug have reduced the pest population; Hazelnut exports have increased significantly. In the period from August 1 to December 27, 2020, 13.8 thousand tons of hazelnuts were exported, the value of which amounted to 70.7 million USD and exceeded the volume of exports by 4.0 thousand tons (41%) for the same period of 2019.

State control of pesticides and agrochemicals

In 2020, up to 500 sale facilities were inspected under the sub-program "Plant Protection and Phytosanitary Welfare". 332 pesticide and 50 agrochemical samples were taken throughout the country and tested at the laboratories.

Supervision and monitoring of plant pests (including quarantine and non-quarantine).

To supervise and monitor particularly dangerous and quarantine pests, 1194 insect traps were placed across the country for entomological examinations.

Laboratory examinations undertaken for analysis of pests – the analysis (incl. entomological, mycological, virological, bacteriological, helminthological, horological) of 1667 samples was carried out.

Laboratory tests revealed the following quarantine pests:

1. Fruit *Erwinia amylovora* – 1 (Racha-Lechkhumi, Kvemo Svaneti);
2. *Xanthomonas Fragaria* – 5 (Kakheti – 4; Kvemo Kartli -1).
3. Vine *Xerophilous ampelinus* – 3 (Kakheti – 2; Racha – Lechkhumi, Kvemo Svaneti – 1).
4. Potato – *Glob Odera rostochiensis* – 1 (Kvemo Kartli – 1).

Phytosanitary export certification

In 2020, the plant protection specialists from the Regional Divisions of the National Food Agency issued the following for plant products:

11,974 phytosanitary certificates, including 11 863 export and 111 re-export certificates

Phytosanitary certification was carried out and on the basis of issued certificates, 132 737 tons of plant products were exported from Georgia, including

- Nuts-14 663 tons.
- Laurel - 5257 tons.
- Nectarine - 14075 tons.
- Peaches - 8239 tons.
- Apples - 9413 tons.
- Other fruits - 2549 tons.
- Persimmon - 7343 tons.
- Vegetables - 627 tons.
- Potatoes - 1426 tons.

- Herbs - 2502 tons.
- Tangerines - 54 766 tons.
- Tea - 1042 tons.
- Timber - 29880,355 m³.

Registration of pesticides and agrochemicals

291 pesticides are currently being registered (including 47 applications submitted in 2019). 252 preparations - undergoing expert examination:

213 preparations have been registered (including 8 new active ingredients and combined preparations). The registration process of 262 agrochemicals is ongoing.

From 2015 to 2020, in accordance with EU Regulation 1107/2009, in order to protect human health and the environment, 38 active substances (96 pesticides) have been removed.

In 2019 the roster of pesticides was reviewed and effective pesticides, less dangerous to humans and the environment, were registered. Order № 2-29 of the Minister of Environment and Agriculture of Georgia of January 14ep, 2020 "On Approval of the State Catalog of Pesticides Permitted for Use in Georgia" was drafted and published. This catalog is important for farmers, as it contains regulations on pesticide use, as well as hygienic and environmental standards. The catalog is also an effective tool for regulatory bodies.

AMELIORATION OF GEORGIA

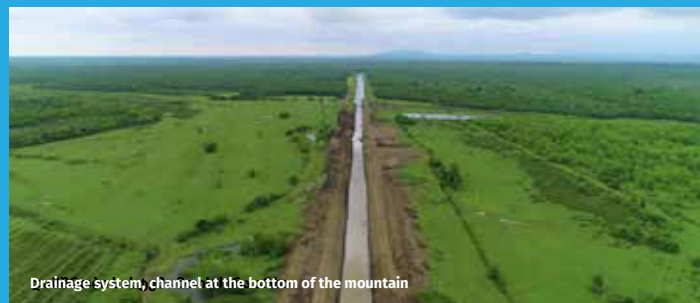
The regulation of amelioration systems is significantly developing the agricultural sector. The Ministry of Environment Protection and Agriculture is conducting large-scale rehabilitation works of the amelioration infrastructure to increase the fund of water-supplied and drained agricultural lands of the Ministry of Environment and Agriculture of Georgia.

Since 2012, significant funds have been spent from the budget for the rehabilitation of infrastructure, and as a result, 201 thousand hectares of land have been ameliorated. This means that, in fact, new life has returned to the earth. Amelioration works are being carried out intensively during the winter to prepare the infrastructure for the irrigation season.

By 2012, the irrigated area in Georgia was about 45 thousand hectares, while the drained area was 14 thousand hectares. As a result of measures taken in recent years, the number of irrigated areas in eastern Georgia has tripled, while in western Georgia, the number of drained areas has almost tripled.



Algeti's reservoir



Drainage system, channel at the bottom of the mountain

AMELIORATION OF GEORGIA

In 2020, the Georgian land amelioration program implemented 44 infrastructure rehabilitation projects.

As part of the rehabilitation, 97 km of irrigation and 95 km of drainage canals were cleaned / repaired, 2 headworks were built, and 2,165 km of canals were cleaned and repaired and 3,777 units of different types of hydraulic structures were repaired.

In 2020, irrigation water was supplied to villages where agricultural lands have not been irrigated for 2-3 decades



Triphoni's irrigation system

34,600 SUBSCRIBERS WERE EXEMPTED FROM THE AMELIORATION SERVICE TAX IN 2020, THE SAVINGS AMOUNTED TO GEL 3,850,490

The anti-crisis agricultural plan “Caring for the Village and Farmers” developed to alleviate the economic damage caused by the spread of the new coronavirus (COVID-19) in Georgia envisages significant benefits in terms of land amelioration.

Farmers receiving irrigation and drainage services are exempt from 2020 amelioration service fee, per beneficiary (subscriber) within total of no more than 10 hectares of agricultural land area. The imposed state benefit was granted and 34,600 subscribers were exempted from the 2020 amelioration service fee. Beneficiaries' savings amounted to GEL 3,850,490.

Also, within the framework of the anti-crisis plan of agriculture, the debt of up to 8 million GEL to the land amelioration of Georgia, which arose until 2020, was fully written off to 42 thousand farmers

ENPARD III Commitment – Indicator 1.1.3:

	2016	2017	2018	2019	2020
Hydro-meliorated area (ha) – Ltd Georgian Amelioration		156,900	165,000	169,500	177,280
Planted/contracted land area (ha) within the framework of plant the future *		4,090	6,171	8,101	10,101
Consolidated hydro-meliorated and irrigated area (ha)	143,375 **	160,990	171,171	177,601	187,381

* Irrigation systems were arranged in these areas

** Baseline indicator represented in the ENPARD III document

Comment: hydromeliorated area increased by approximately 31% in 2020 compared to the baseline indicator for 2016.



Vashlovani National Park



Chukar



Javakheti, Bughdasheni Lake

AGENCY OF PROTECTED AREAS

The main field of activity of LEPL Agency of Protected Areas is the management of the system of state reserves, national parks, natural monuments, sanctuaries, biosphere reserves, world heritage sites and wetlands of international importance.

As of 2020, the total area of protected areas is 793 351 hectares, which is 11.38% of the country's territory.

Georgia (according to IUCN criteria) has 93 protected areas of 5 different categories, namely: 14 state reserves, 13 national parks, 40 natural monuments, 23 sanctuaries and 3 protected landscapes.

The activities of the Agency in 2020 included the following important areas:

- Expansion and development of the network of protected areas
- Preservation and conservation of biodiversity
- Raising public environmental awareness
- Development of ecotourism
- International recognition and cooperation
- Marketing and public relations

AGENCY OF PROTECTED AREAS

EXPANSION AND DEVELOPMENT OF THE NETWORK OF PROTECTED AREAS

In 2020, the area of protected areas increased by a record 122 374 hectares. 3 new protected areas were established, and 1 protected area was expanded:

- Erusheti National Park - 11 385 ha
- Aragvi Protected Landscape - 99 802 ha
- Truso Protected Landscape - 7 007 ha
- Borjomi-Kharagauli National Park was expanded - 4 180 hectares.



Borjomi-Kharagauli National Park



Truso Protected Landscape



Sataplia, Rocky trail

PRESERVATION AND CONSERVATION OF BIODIVERSITY

Biodiversity is continuously monitored in the protected areas of Georgia and modern monitoring methodologies and technologies are introduced.

- All 20 territorial administrations of the Agency of Protected Areas are being patrolled continuously by rangers equipped with appropriate specific outfits and vehicles.
- In order to improve the protection and monitoring of protected areas, the SMART Patrolling and Monitoring system is being implemented in Borjomi-Kharagauli, Lagodekhi, Mtirala, Kintrishi and Machakhela protected areas with the financial support of the Global Environment Facility (GEF), the United Nations Development Programme \ (UNDP) and the Caucasus Nature Fund (CNF).



Smart Patrolling and Monitoring

ONGOING CONSERVATION PROJECTS IN PROTECTED AREAS

- With the support of the World Wildlife Fund (WWF), the Gazelle Population Restoration Project in the Vashlovani Protected Areas is successfully underway. The population is constantly increasing and at this stage is 150 individuals.
- In the Lagodekhi Protected Areas, the non-governmental organization NACRES, with the financial support of the World Wildlife Fund (WWF), the Transboundary Joint Secretariat (TJS) and the CNF, successfully conducts cross-border telemetry monitoring of the East Caucasian Goat. According to the latest results, more than 500 individuals have been recorded in Lagodekhi Protected Areas.

FOREST MAINTENANCE-RESTORATION

The project of Imereti Oak (included in “Red List”) Restoration has been undertaken in Ajameti Managed Reserve since 2016, on about 56 ha.

Forest Pest Disease Monitoring and Control Measures

To monitor and improve the sanitary condition of the forest in the protected areas, phytosanitary research is conducted annually, and necessary measures are taken against the pest and disease.

During 2020, Mtirala, Borjomi-Kharagauli, Kolkheti and Kazbegi National Parks, Batsara-Babaneuri, Kintrishi and Pshav-Khevsureti protected areas were sprayed. As a result, the sanitary condition of about 15-18% of the damaged area has improved.



Borjomi-Kharagauli National Park

ECO-EDUCATION AND INTERPRETATION

- In 2020, 212 lectures-seminars were held, 7 Green Weeks, 15 green activities, 78 ecotours, 46 cleaning activities and 5 eco-camps were arranged, furthermore, 262 information meetings were held with the local population.
- 11 375 participants were involved in environmental activities, including 4 513 school students, 662 students, 644 teachers and 5 113 locals.
- 176 public and private schools from different regions were involved in environmental activities.
- With the support of the “Protected Areas Development Fund”, LEPL Agency of Protected Areas published "Young Ranger Guide" dedicated to the memory of Ivane Kupradze, a hero ranger from Borjomi-Kharagauli National Park”
- In order to improve the qualifications of the staff of the Agency of Protected Areas and Territorial Administrations, with the financial support of donors (UNDP, Government of Sweden), up to 200 employees of the system were trained in various areas (law enforcement, firefighting, First AID, eco-education and interpretation, visitor services).



Lecture-seminar



Rangers training

PUBLIC DISCUSSIONS

LEPL Agency of Protected Areas of the Ministry of Environmental and Agriculture continues to hold public meetings and discussions on ongoing and planned projects in the regions. Up to 15 public meetings were held in 2020, some of them online due to a pandemic. The following topics were discussions with local population during the meetings: establishing protected areas in the Racha region, Pshav-Khevsureti National Park Forest Management Plan, Javakheti and Borjomi-Kharagauli Protected Areas Management Plans and others.

PROTECTED AREAS MANAGEMENT PLANS

In 2020, 1 new management plan for Algeti National Park was approved.

Elaboration of new management plans for 3 protected areas were underway (Pshav-Khevsureti Protected Areas, Kazbegi National Park, Chachuna Managed Reserve). Furthermore, 4 management plans are being updated (for Borjomi-Kharagauli, Javakheti, Tusheti and Vashlovani Protected Areas).

As of the year 2020, 13 out of 20 territorial administrations are managed by Management Plan, which reports to 65 %.

FOREST INVENTORY AND NEW FOREST MANAGEMENT PLANS

In 2020, Forest Management Plans for 2 protected areas were approved: Tbilisi National Park and Pshav-Khevsureti Protected Areas.

As of 2020, The forest fund is 369 189 ha, which is about 47% of the protected areas. The inventory was conducted on 90 099.5 ha, which is about 24% of total forest-covered areas.

As of the Year 2020, 7 Forest Management Plans have been elaborated in total.

WASTE MANAGEMENT PLANS

Sustainable waste management and the existence of an appropriate management plan plays an important role in maintaining unique biodiversity in protected areas. In this regard, during the reporting period, with the initiative of the Agency of Protected Areas and with the support of donor organizations (CENN, Czech Development Agency, Caritas), waste management plans were developed for 4 protected areas: Tbilisi, Mtirala, Pshav-Khevsureti National Parks and Lagodekhi Protected Areas.

USE OF NATURAL RESOURCES

With the purpose of protection and sustainable use of the forests at protected areas, firewood from 11 protected areas relevant categories and zones was provided to the population living in the surrounding areas. In 2020, 163 forest cutting areas were defined, with a total capacity of approximately 20 000 m³. About 2 500 families were satisfied with firewood.

SCIENTIFIC RESEARCH IN PROTECTED AREAS

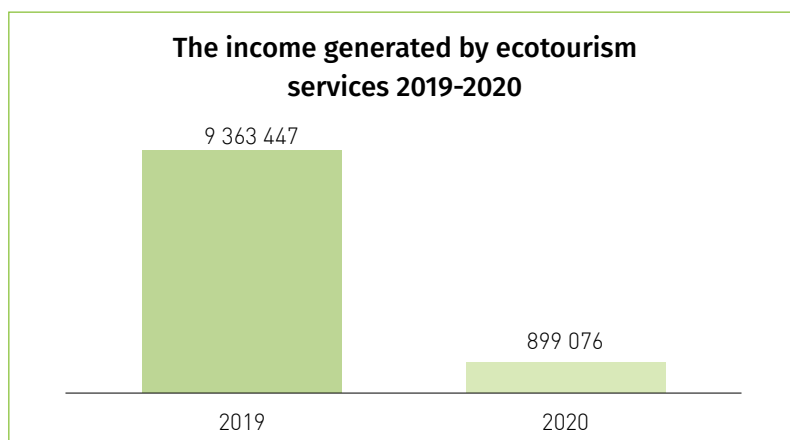
In 2020, the LEPL Agency of Protected Areas issued 65 scientific research permits in the direction of zoology, entomology, botany, hydrology, viticulture, archeology, and culture.

ECOTOURISM AND INFRASTRUCTURE

Due to the pandemic caused by the spread of a new Corona virus - COVID-19 and due to the restrictions posed in the country and the world, as a whole, number of international arrivals decreased, hence, the number of visitors to the protected areas has been significantly reduced, as well. According to the data of 2020, the number of visitors to the protected areas of Georgia (240 268 visitors) decreased by 80% compared to the data of 2019 (1 199 011 visitors). Among them, 89% of visitors are Georgians.



Revenues from ecotourism services in 2020 amounted to 899 076 GEL, which is 90% less than the same period in 2019 (9 363 447 GEL).



DEVELOPMENT OF ECOTOURISM INFRASTRUCTURE

In 2020, about 30 ecotourism projects were implemented in the protected areas of Georgia and a total investment of 7 000 000 GEL was made. The support of international partner organizations in the implementation of projects is especially noteworthy.

- Up to 200 km of hiking trails have been built, rehabilitated and are close to completion in the following areas: Nedzvi and Abastumani areas of Borjomi-Kharagauli National Park, Martvili and Okatse, Sataplia, Ajameti Sanctuary, Algeti National Park, Batsara-Babaneuri protected areas.
- Rope Park Ecotourism Attraction in Kolkheti National Park was supported by the United States Agency for International Development (USAID).
- In Pshav-Khevsureti National Park, Shatili, an international standard visitor center worth up to 4 million GEL is being set up with the financial support of KFW.



Tchuria Rope Park



Abastumani cottages

- Modern lighting system has been installed in Sataplia Cave in accordance with the latest standards, which makes it very efficient for visitors to travel in the cave and does not damage the unique biodiversity of the cave. Also, an artistic lighting system was arranged on the nearby paths.
- infrastructure (among them visitor centers) construction/rehabilitation works were carried out at 7 protected areas: Lagodekhi Protected Areas, Mtirala National Park, Martvili Canyon, Borjomi-Kharagauli National Park and Kintrishi Protected Areas.
- Rangers Cottages were arranged in 4 protected areas: Javakheti, Mtirala, Algeti and Kazbegi protected areas.
- In accordance with the principles of safety, the rocky path in Sataplia managed reserve was cleaned and renewed, and protective nets against falling rocks were arranged. New lights were installed in the Navenakhevi cave, the stairs were covered with concrete, the railing of the cave was strengthened, and the pedestrian paths were rehabilitated.
- Protected areas administrations were equipped with information, interpretation, demarcation, prohibition, directional, warning, and various subject boards. 2 337 boards and 993 stickers were prepared by the LEPL Agency of Protected Areas.

- During 2020, a record amount of investment projects worth more than GEL 89 million were implemented at Georgia's protected areas. Among them, which is the first private international investment in Protected Areas of Georgia.

The implementation of these projects will significantly contribute to the attraction of tourist flows to protected areas after the end of the pandemic and will provide additional economic benefits to the local population.



Sataplia



Sataplia Dinosaur Park



Tsalka (Dashbashi) Canyon



Abastumani Trail

INTERNATIONAL RECOGNITION

- In 2020, the status of holding European Diploma was extended by 10 years for Vashlovani Protected Areas. Vashlovani Protected Areas are the only ones in Georgia that possess this status since 2015.
- In 2020, the Javakheti Protected Areas (Madatapa and Bugdasheni Lakes) were granted the status of wetlands of international importance by the Secretariat of the Ramsar Convention.
- The consideration of granting UNESCO World Heritage status to the “Colchic Forests and Wetlands” was postponed due to a pandemic in July 2021.
- The Agency The Agency actively works on submitting a candidate site to the IUCN Green List of Protected Areas of Georgia. At this stage, a group of experts has been set up at the request of IUCN. The group developed and approved the general indicators of the IUCN Green List. Through the latter criteria, the Agency will select the appropriate protected areas and work on its nomination.
- The Thin Green Line Foundation allocated compensation to the family of the Ranger, those who died on duty in 2020.
- A Memorandum of Understanding was signed with the Government of Malaysia.
- In 2019, the Agency of Protected Areas and the National Park Service of the Republic of Korea started cooperation and working on signing a memorandum of understanding. Cooperation is expected to include protected area management, researches and conservational activities. A draft memorandum of understanding was developed, but due to a pandemic caused by Covid-19, its signing was temporarily delayed. Currently, communication between parties is ongoing, and negotiations are underway to ensure that the Korean side provides the Agency of Protected Areas with 270 radio-sets.



European Diploma granted to Vashlovani Protected Areas, was extended for 10 years

INTERNATIONAL COOPERATION

The cost of the grant projects portfolio of the Agency of Protected Areas in 2020 is unprecedented, it reaches 54 million GEL, of 14 million of which was envisaged for 2020.

The support of the German Development Bank (KFW), Caucasus Nature Fund (CNF), United Nations Development Program (UNDP), Global Environment Facility (GEF), Government of Sweden, European Union (EU), United States Agency for International Development (USAID), Municipal Development Fund (MDF), World Bank, World Wildlife Fund (WWF), Global Conservation, the Czech Development Agency and others is especially important in terms of international cooperation.

- With the financial support of KFW, within the framework of the “Protected Areas Support Program”, the followings were implemented: Rehabilitation of Manglisi Public Square (approx. 670 000 GEL), arrangement of hiking trails in Algeti National Park (approx. 325 000 GEL)
- Negotiations are underway with KFW for a new grant program worth € 13.5 million.
- In order to overcome the existing challenges due to the new coronavirus COVID-19, in 2020 the Agency of Protected Areas received a grant of GEL 4 200 000 from the Caucasus Nature Fund (CNF), which was allocated for the operational costs of Agency of Protected Areas. For the first time this year, CNF financial support was extended to Machakhela National Park. It's worth mentioning that the financial support of CNF in 2020 exceeded GEL 6.3 million.
- Agency of Protected Areas has received a grant of € 500 000 from the Czech Development Agency, which aims to develop the Okrojanashvili Cave, to conduct the necessary research and prepare a project design. The project will start in 2021.
- With the support of the United Nations (UNDP), up to 300 information / interpretation boards were installed / updated in protected areas, up to 20 000 information brochures / albums were printed, up to 300 first aid kits were purchased, etc.
- With the support of the United States Agency for International Development (USAID), a rope park was arranged in Kolkheti National Park, and inventory and equipment for park staff were purchased. Also, a project for the rehabilitation of the exhibition hall of the Tusheti National Park Visitor Center was developed.

MARKETING AND PUBLIC RELATIONS

In 2020, the Agency of Protected Areas implemented more than 10 digital projects, 7 events and prepared about 35 image videos within the framework of various campaigns.

Image videos:

- Listen to nature without leaving home (travel virtually) - 5-part video series that combines video footage of protected areas and nature sound recordings in those areas.
- Forest Week - 5 short videos and 8 informational posters were prepared on forest topics.
- Stay home and get to know the national parks of Georgia - Informational video vlogs have been prepared, where visitor service specialists introduce us and take us online to the national parks.
- Meet the Ranger - A Ranger Week campaign was organized for Ranger Day, which featured 7 videos featuring rangers from different

protected areas and talked about their stories, challenges, and activities.

- For protected areas - image video material of 9 protected areas was prepared.
- 2 image clips were prepared for the winner of "World Travel Award" - Mtirala National Park and the winner of the National Tourism Award Borjomi-Kharagauli and Tusheti National Parks.
- Safety rules - a video clip on safety rules for moving to protected areas was prepared by the advertising company "Redberry".

Digital campaigns:

- Green Memories - Collecting visitor memories and sharing them with our audience, 42 posts prepared.
- Why National Parks? - 10 posts were prepared for 6 different protected areas, showing the advantages of each, sights, biodiversity, and tourism potential.
- Get to know the trails (Autumn in National Parks) - Up to 10 posts have been prepared for the public to get acquainted with, promote, and make hiking recommendations for the marked trails in the protected areas of Georgia.
- Welcome to Georgia - 11 protected areas participated in the National Tourism Award this year. During the competition, information was provided to the public about the participating territories and voting.
- World Travel Awards - In 2020, 5 national parks participated in one of the most prestigious awards in world tourism. To encourage them and inform the public, a voting campaign was launched on their Facebook page

Media relations

- The Agency of Protected Areas actively cooperates with the leading TV Channels or broadcasters of the country. The topics were covered in various rubrics on the topic of tourism: „Imedis Kvira“, “Post Allion“, “Saimedo Turi“, “Imedis Dila“, Good Morning in Georgia”.
- Information on protected areas has been published more than 200 times in various print and online publications.
- Image-information materials on protected areas of Georgia were prepared and published: In the issue of Magazine “OK”, Where.ge, “Our Village”.
- The National Tourism Administration has prepared videos about the protected areas of Georgia

Events:

- On June 30, an award ceremony was held in the Lagodekhi Protected Areas, where the participants of the training "Guidelines for Integrated Governance and Management of Protected Areas" were awarded with certificates.
- The Prime Minister visited the Tsalka (former Dashbashi) canyon. Levan Davitashvili, Minister of Environment and Agriculture, Valerian Mchedlidze, Chairman of the Agency of Protected Areas, Ekaterine Tordia, Director of KASS Group, Shota Rekhviashvili, Governor of Kvemo Kartli Region, and Mariam Kvirivshvili, Head of the National Tourism Administration hosted the head of government. The future development of the area was discussed at the meeting.



The Prime Minister Giorgi Gakharia at Tsalka Canyon



- On July 31, an event dedicated to the World Ranger Day was held in the Sabaduri Forest section of the Tbilisi National Park. The Rangers were congratulated on their professional day by the Minister of Environment and Agriculture, Levan Davitashvili, the UNDP Resident Representative in Georgia, Louisa Vinton, the Ambassador of Germany, Hubert Knirsch, the Ambassador of Japan, Tadaharu Uehara, Chairman of Environmental Protection and Natural Resources Committee of Parliament Nino Tsilosani, Chairman of the Agency of Protected Areas Valerian Mchedlidze. The event aimed to popularize the rangers' profession, to show and appreciate their activities and to increase their motivation. The event was attended by about hundred guests. 26 Rangers of Protected Areas were awarded.



Ranger Day

- New hiking trail was arranged at Sataplia Protected Areas, which was visited by Valerian Mchedlidze, Chairman of the LEPL Agency of Protected Areas.
- In the framework of the Memorandum of Understanding between the Agency of Protected Areas of the Ministry of Environment and Agriculture and the USAID Zrda Project, the rangers of the Churia district of Kolkheti National Park were provided with new international standard uniforms by Valerian Mchedlidze, Chairman of the Agency of Protected Areas and USAID Representative.
- Valerian Mchedlidze, Chairman of the LEPL Agency of Protected Areas inspected the works of arranging a new ecotourism trail and a tourist shelter near Mount Shuano in Borjomi-Kharagauli National Park.
- In Abastumani part of Borjomi-Kharagauli National Park, international standard trail, information boards, ecotourism cottages, picnic and fire places are being arranged underway, which was visited by the Chairman of the LEPL Agency of Protected Areas Valerian Mchedlidze.

Advertising installations and promotional materials:

- In the framework of the project "Enforcing Protected Areas System Capacity for performance improvement and increased awareness" 9 500 triplets and 10 000 map-booklets were printed for different protected areas.
- Image-information materials were prepared, including a general map-booklet of protected areas, triplets, brochures, photo albums and a tourist guide of national parks.
- Information-interpretation boards were prepared for various protected areas, including information signs about rules of behavior at protected areas, marking of footpaths and border banners designs.
- A variety of visual materials needed for the events were prepared, including image banners, invitations, certificates, T-shirts, and social media visuals.
- Image and video archives of 15 protected areas were prepared. In total about 300 image photos are recorded in the archive.

Public information

During the current year, the Agency of Protected Areas received 50 letters requesting public information. All of them were answered within the timeframe set by law. Out of this, 49 were satisfied and in 1 case a refusal was sent.

ENPARD - REPORT ON EU-SUPPORTED ACTIVITIES 2017-2020

- Seven (7) forest management plans have been prepared and approved with the support of the European Union: for Ajameti, Nedzvi, Katsoburi Managed Reserve, Kolkheti, Machakhela, Tbilisi National Parks and Pshav-Khevsureti Protected Areas.
- Eight (8) new categories have been added to the protected area system: Kintrishi National Park, Ponto Oak Managed Reserve, Saghamo Lake Managed Reserve, Paravani Lake Managed Reserve, Lake Abuli Managed Reserve, Erusheti National Park, Truso Protected Landscape, Aragvi Protected Landscape.



Oniore Waterfall



Martvili Canyon



Tusheti National Park



Vashlovani National Park

- In 2017-2020, with the support of the European Union, five (5) new management plans were prepared and approved for the following protected areas: Tbilisi National Park (including Mtskheta-Mtianeti and Kvemo Kartli regions, Mtskheta-Mtianeti and Gardabani municipalities), Machakhela National Park, Kobuleti Protected Areas, Kolkheta National Park and Katsoburi Managed Reserve, Algeti National Park.
- As of 2020, out of 20 territorial administrations under the Agency of Protected Areas, 14 are managed by the management plan, which is 70% of the total.



NATIONAL ENVIRONMENTAL
AGENCY

NATIONAL ENVIRONMENT AGENCY

The National Environment Agency conducts atmospheric air, water, and soil surveys, hydrometeorological and geological events, weather, and climate observations, as well as Black Sea biodiversity surveys.

In 2020, the Agency implemented several important projects:

- Large-scale studies of atmospheric air.
- Modern meteorological radar.
- Newsletters.
- Black Sea Studies.
- Studies of Sochi cone stocks.
- International cooperation.



Meteorological Radar

NATIONAL ENVIRONMENT AGENCY

LARGE-SCALE STUDIES OF ATMOSPHERIC AIR

Throughout 2020, large-scale atmospheric air surveys were actively conducted by the agency. The project "Improving Air Quality Management Capacities", implemented with the support of the Swedish Government under the Governance Reform Fund (UNDP-GRF) project, has been completed.

The project developed an air quality monitoring network development guide, including identifying the number and location of stations and assessing resources needed for network development, operation, and maintenance.

To ensure the smooth and continuous operation of the monitoring stations, technical instructions for their services were created and the staff of the National Environment Agency was trained.

With the financial support of international partners and the state, it is planned to gradually launch new stations throughout Georgia, including devices in accordance with international standards and 3 mobile stations to determine the concentration of solid particles and heavy metals in the air. According to the developed document, 24-hour monitoring is planned at 27 locations.

These stations will enable the National Environment Agency to obtain comprehensive data on ambient air quality



Ambient Air Quality Monitoring

BLACK SEA STUDIES

The year 2020 was significant in terms of Black Sea research. For the first time, with the support of the European Union and the Food and Agriculture Organization (FAO) General Commission for Mediterranean Fisheries (GFCM), the number of quotas for fish resources in the Black Sea for 2020-2021 has been set, including 109 000 tons of anchovy.

The studies carried out, for the first time, enabled the National Environment Agency to determine the stock in accordance with EU standards and the requirements of the Mediterranean Commission.

Also, with the support of the Food and Agriculture Organization of the United Nations (FAO / GFCM), the National Environment Agency conducted large-scale studies of the no less important Black Sea Rapana (*Rapana venosa*) in the Georgian maritime space.

The seaside countries of the region have a great potential for exporting this product. As a demanded product, it is sold worldwide. This study will be an important step forward for the rational management of resources in the region, based on which information will be provided on the population, distribution, number, size, and age structure of the Black Sea Rapana.

It is important to note that a thorough production of an estimate of seafood stocks will contribute to the sustainable development of the sector in the country, the growth of the economy and the employment of the local population.



Black Sea Researches



Rapana

MODERN METEOROLOGICAL RADAR

This year, A meteorological radar was put into operation in Kutaisi, which within a radius of about 250 km from Kutaisi, operatively transmits data on the types of clouds, their intensity, movement, direction, speed, and other physical parameters. This radar allows to determine the amount and intensity of expected precipitation in almost the entire territory of western Georgia, which ensures timely delivery of information on floods and avalanches caused by them to the relevant agencies.

NEWSLETTERS

In 2020, information bulletins were prepared and published by the Agency's specialists on environmental pollution, geological processes, quantitative and qualitative characteristics of groundwater.

SOCHI CONE STOCK STUDIES

In 2020, modern technologies and methods were used to study the stock of Sochi cones, based on which from 2022, it is planned to issue new, long-term (10 years) licenses on the most acceptable terms for the state. Based on these studies, accurate data on Sochi cone stocks in Racha-Lechkhumi and Samtskhe-Javakheti are determined, not only against the background of forest quarters and precincts, but also against the background of letters.

INTERNATIONAL COOPERATION

During 2020, with the support of the Green Climate Fund (GCF), the Swiss Agency for Development and Cooperation (SDC) and the United Nations Development Program in Georgia (UNDP Georgia), field work was actively carried out, which, among other activities, provides for the assessment of natural geological and hydrometeorological hazards on the territory of Georgia, the development of hazard and risk zoning maps and the improvement of the early warning system.



Field studies

ONGOING PROJECTS IN 2020:

- Project Title: European Maritime Observation and Data Network (EMODNET 4, Lot 4 - Chemistry)
Donor Organization: European Union (EU)
Project implementation deadlines: 2019 - 2021.
- Project Title: Extending the Multilateral Early Warning System and Using Climate-Related Information in Georgia (#00098463), Sub-Project Component 2: Improving Weather Forecast (Program implemented by the United Nations Development Program (UNDP) on "Climate Disaster Risk Reduction in Georgia").
Donor Organization: Green Climate Fund (GCF)
Deadlines for implementation of the sub-project: June 2020. - May 2021.
- Project Title: "Promoting Technological Innovations in Environmental Monitoring and Modeling to Assess Fish Stocks and Non-Fishery Resources" (TIMMOD)
Donor organization: European Union (Black Sea Basin Joint Operational Program 2014-2020)
Project implementation deadlines: May 2020. - May 2022.
- Project Title: Improving Black Sea Environment Monitoring - Selected Measures (EMBLAS-Plus)
Donor Organization: European Union (EU), United Nations Development Program (UNDP)
Project implementation deadlines: April-September 2020.
- Project Title: Sub-Project "Improving Air Quality Management Capacities in Georgia" (within the framework of the UNDP Governance Reform Fund (UNDP-GRF) project (# 00097412))
Donor organization: Government of Sweden
Project implementation deadlines: October 2019. - December 2020.

- Project Title: "Assistance in Arsenic Reduction in Natural Waters, Soils and Foodstuffs and Opportunities for Processing Arsenic composition in Drinking Water in Georgia" (Implementer - Slovak Water Research Institute (WRI))
Donor organization: Slovak Agency for International Development and Cooperation (Slovak Aid)
Project implementation deadlines: October 2019. - May 2021.

- Project Title: "Strengthening Climate Change Adaptation Capacities in Georgia" (under the Program of the United Nations Development Program (UNDP) on "Climate Disaster Risk Reduction in Georgia")
Donor Organization: Swiss Agency for Development and Cooperation (SDC)
Project implementation deadlines: 2019 - 2023.

- Project Title - "Institutional Cooperation between the Ministries of Energy and Environment and Natural Resources Protection of Georgia and the Norwegian Directorate of Water Resources and Energy (NVE)"
Donor organization: Norwegian Ministry of Foreign Affairs
Project implementation deadlines: 2018 - 2023.

- Project Title - EU Water Initiative Plus for Eastern Partnership Countries (EUWI + 4EaP)
Donor Organization: European Union (EU)
Project implementation deadlines: 2016-2020.



National Forestry
Agency

NATIONAL FORESTRY AGENCY

The National Forestry Agency is the main forest management body in the country. The main function of the Agency is sustainable forest management, forest maintenance and sustainable use of biodiversity components in the forest fund area.

The Agency manages about 2 million hectares of the country's forest fund. The Agency operates in 9 regions of the country through regional forestry services. (Except Adjara)

Priorities of the National Forestry Agency are to improve the sanitary condition of forests, forest inventory and preparation of management plans. Also, diversified forest use and increased access to legal timber, which includes the introduction of a new mechanism for the supply of firewood to the population, as well as the promotion of the private sector and, along with sustainable forest management, increase additional jobs in rural areas and increase additional income.

The main priority of the National Forestry Agency in 2020 was:

NATIONAL FORESTRY AGENCY

DEVELOPMENT OF FOREST INFRASTRUCTURE

The new Forest Code, approved by the Parliament of Georgia in 2020, is an important part of the forest sector reform, the main goal of which is to establish multi-purpose forest use, preserve and protect forest ecosystems, and use social and economic benefits wisely. Arranging the so-called "business yard", along with other innovations provided by the Code, has become one of the main tools for the introduction of sustainable forest management.

In order to facilitate the effective enforcement of the new Forest Code, to facilitate access to timber resources for the public and the private sector, and to develop forestry, 26 "business yards" have been set up in almost all regions (Imereti; Guria, Samtskhe-Javakheti; Mtskheta-Mtianeti; Kakheti, Shida Kartli) across the country to facilitate the provision of all forest-related information and services. As it is known, the National Forestry Agency is changing the practice of timber production. Social logging will be phased out, the Agency will carry out organized timber production, sorting and warehousing in "business yards". This change will make it easier for the population and the private sector to purchase and transport timber at the desired time.



Kakheti Forestry Service Telavi Forest District



Kakheti Forestry Service Gurjaani Forest District



Samtskhe-Javakheti Forestry Service Borjomi Forest District



Samtskhe-Javakheti Forestry Service Adigeni Forest District

STRENGTHEN THE MANAGEMENT SYSTEM OF THE NATIONAL FORESTRY AGENCY

A strong forest management body and a well-functioning institutional system are essential for the development of a sustainable forest management system and the effective enforcement of the Forest Code. Accordingly, the National Forestry Agency Development Strategy and Action Plan for 2021-2026 were prepared in 2020; In order to fully implement financial monitoring, the first agreement between the Agency and the Ministry on the provision of services under the budget program (SLA) was signed; A Memorandum of Understanding was signed between the National Forestry Agency and the CIDA / Global Georgia Network on the introduction of the Environmental, Social and Governance (ESG) principles. By preparing a domestic policy document, the Forestry Agency will be the first public agency in Georgia to introduce such governance tools.

INVENTORY OF FOREST MANAGEMENT LEVEL

Forest inventory is a prerequisite for sustainable forest management, through which the quantitative and qualitative indicators of forests are assessed, and all types of forestry activities are planned. It has a ten-year audit period. The process has been resumed by the National Forestry Agency since 2013. To date, information on the quantitative and qualitative indicators of forests has been updated for the 232,316 hectares under the Agency management and ten-year forest management plans have been prepared.

In 2020, forest inventory and preparation of 10-year management plans were carried out on an area of more than 150,000 hectares, which is almost 2 times the annual figure of previous years. It should be noted that the forest inventory of Akhmeta and Dedoplistskaro-Sighnaghi forest districts was carried out by young forest specialists, who were employed in field work after passing the training program prepared by the National Forestry Agency in 2019-2020. The process, initiated by the Agency in 2019, has helped increase the interest of young people in the forestry profession, and 21 new forest-taxators have been trained under the training program in 2020, which exceeds the number of applicants from the previous year.



Taxators

CHESTNUT GROVE RESTORATION-REHABILITATION PROGRAM

For the first time since the advent of chestnut disease in Georgia since the last century, comprehensive and consistent scientific and forestry measures have been taken to use biological methods against the disease.

It should be noted that in November 2016, the Government of Georgia, in the form of the Ministry of Environment and Natural Resources Protection, signed an agreement with the Baku-Tbilisi-Ceyhan Pipeline Company and the South Caucasus Pipeline Company, within which the funding for the restoration program of chestnut forest ecosystems of Imereti region was allocated. Accordingly, the National Forestry Agency has hired an international expert, Dr. Irina Matsiak, to launch, for the first time in Georgia, chestnut restoration measures through biological control of fungal disease.

After all the above, in 2020, after the detection of the disease, the Agency introduced hypo virulent strains for the first time in the Boslev Forestry of Zestaponi Forest district, in a specially selected area (43 ha), where specially allocated experimental areas were allocated after sanitary cutting. The strains were applied to about 200 diseased chestnut trees. Descriptive work, detailed observation and monitoring will be carried out in the coming years.

The method of biological control will help to heal the diseased chestnut groves, which has remained a problem for years both in Georgia and throughout Europe.

It is also important that Georgia's "Nationally Defined Contribution" to the UN Framework Convention on Climate Change envisages the implementation of afforestation and restoration measures on the pre-identified 1,500 ha by 2030, as well as appropriate measures to promote natural renewal on 7,500 ha of forest area to restore natural forest cover.



Therefore, to comply with its obligations under the Framework Convention on Climate Change, the National Forestry Agency should plant 150 hectares of forest annually and promote the restoration of natural forest cover

IN 2021, IT REMAINS A PRIORITY FOR THE NATIONAL FORESTRY AGENCY

Ecological:

- Rehabilitation of forests
- Improving the sanitary condition of the forest
- Forest inventory and preparation of management plans

Economic:

- Organized forest use and increased access to legal timber.
- Multipurpose forest use - recreation, tourism, non-timber resources.
- Timber production will be carried out by the Agency or under its supervision, long-term forest use (leasing), production of biomass (briquettes), for which firewood waste (thin branches, chips) is used, which will help reduce the pressure on the forest.

Social:

- Promoting forest education
- Creating jobs in the region
- New firewood supply mechanisms (business yards in all municipalities)

Updated Vocational Training and Higher Education Standards, Internship and Practice System. 100% of the local population is employed in forestry activities.

ENPARD III Commitment – Indicator 3.1.3:

As of 2020, 18.7% of forest fund territory (the territory under the management of LEPL National Forestry Agency and the LEPL Agency of Protected Areas) is managed in accordance with the approved forest management plans.





STATE LABORATORY OF AGRICULTURE

The main field of activity of the LEPL State Laboratory of Agriculture (SLA) is the diagnosis of animal diseases (including poultry, fish, bees) and diagnosis of plant pests, as well as research on food and drinking water. The laboratory is involved in the elimination and quarantine of the disease throughout the country and facilitates the approbation and introduction of new diagnostic methods.

LEPL State Laboratory of Agriculture includes Tbilisi Laboratory, 2 zonal-diagnostic laboratories (Kutaisi, Akhaltsikhe) and 10 regional laboratories (Gori, Marneuli, Dusheti, Gurjaani, Ambrolauri, Ozurgeti, Zugdidi, Batumi, Sachkhere and Mestia).



STATE LABORATORY OF AGRICULTURE

QUALITY MANAGEMENT IN THE LABORATORY

LEPL State Laboratory of Agriculture successfully passes the international accreditation every year, according to the data of 2020, the laboratory meets the requirements of the international standard ISO / IEC 17025: 2017/2018.

On October 28, 2020, a certification audit was conducted by Ltd Sai Global-Georgia and the laboratory continued to be certified according to the international standard ISO 9001: 2015.

The National Accreditation Center conducted the audit in the Tbilisi Central Laboratory on June 15-19, 2020, in the Kutaisi Zonal Diagnostic Laboratory on June 25-26, in the Akhaltsikhe Zonal Diagnostic Laboratory on June 08, in the Gori and Gurjaani Laboratories on June 09-10, and in the Ozurgeti and Zugdidi Laboratory on June 23-24 in order to expand the scope of planned monitoring and accreditation. The scope of accreditation was approved by the laboratory on September 23, 2020 and the certification granted, originally issued on May 5, 2017, was extended, based on which the laboratory meets the requirements of SST ISO / IEC 17025: 2017/2018 standard.

EPIDEMIOLOGICAL SURVEILLANCE ACROSS THE COUNTRY

LLEPL State Laboratory of Agriculture's Regional Laboratories are actively involved with the US Defense Threat Reduction Agency (DTRA) as part of the Joint Biological Cooperation, United Health Program, and are fully prepared to be involved in the laboratory component in the event of an outbreak.

It should be noted that due to the state of emergency caused by the pandemic in the country, the regional laboratories in the network of the LEPL State Laboratory of Agricultural were actively working in compliance with all regulations and requirements.

Laboratory staff training / professional competency testing program

The laboratory pays significant attention to both research and development activities, as well as promoting the qualification of laboratory staff; Staff training in new methodologies is ongoing.

This year, the trainings of the laboratory specialists were conducted online.

STAFF TRAINING

- 27.01.2020-02.02.2020-Principles and service of working with mercury analyzer;
- 27.02.2020-Examination of drinking water on the following parameters: detection of coli and coliform bacteria; SST ISO 9308-2 2012/2013 Determining the number of viable organisms IDEXX HPC Quanta Tray;
- 18-22.05.2020-Gender Equality;
- September 2019-May 2020-English Language and Grant Writing;
- 13.01.2020-17.01.2020-Study of the method of identification of plant fungal diseases;
- 19.01.2020-25.01.2020-EU Innovative Action for Private Sector Competitiveness in Georgia;
- 15.01.2020-16.01.2020-EU Innovation Project for Private Sector Competitiveness in Georgia;
- 18.02.2020-27.02.2020-Renewable BSL-3 Level 3 Biosafety Training;
- 08.05.2020-10.05.2020-Prospects of Georgian Veterinary during the Coronavirus Pandemic and its aftermath;
- 03.08.2020-07.08.2020-Training of serological research methods - FPA, ELISA and FPA apparatus calibration;
- 07.06.2020-SST ISO / IEC 17025: 2017/2018, internal audit;
- 04.07.2020-SST ISO / IEC 17025: 2017/2018 Discussion of critical issues of accreditation standard, impartiality, risk analysis and decision making.

LEPL State Laboratory of Agriculture is involved in the professional competency testing program. This means that the lab passes exams in professional research. Participation in such activities is both an objective confirmation of the authenticity and validity of the testing offered to the customer by the laboratory, as well as one of the mandatory conditions for maintaining accreditation.

PROMOTING VOCATIONAL EDUCATION

LEPL State Laboratory of Agriculture tries to help educational institutions in educating future specialists.

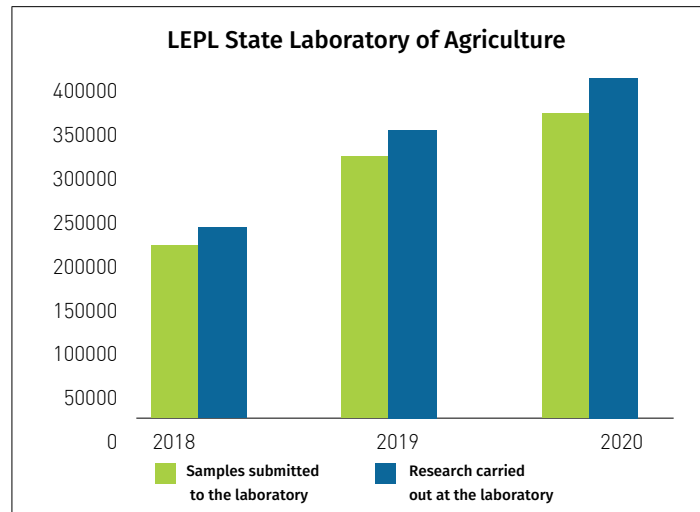
Students from vocational schools and universities are actively involved in the laboratory in industrial practice for their future employment. Based on this, the number of young qualified human resources has increased significantly. It is noteworthy that after hiring employees their professional development continues. Employed students have already participated in several workshops/ trainings conducted by various invited international or local experts.

LEPL State Laboratory of Agriculture is involved in two EU-funded projects to promote vocational education: 1) "Development of nutrition technology skills for agricultural professionals in laboratory practice (Eastern European region)" 2) Project: "Continuing Safety Education Courses for Young People in Western and Eastern Georgia", the mission of the project is to strengthen the competencies and employment of young professionals in the field of laboratory services by creating an unified platform for continuing education in the field of laboratory health and safety in Tbilisi and the regions of Georgia.

STATISTICS

During the reporting period, 367 727 different types of tests were conducted (346 142 veterinary diseases; 16 369 food researches; 5 216 plant pests). The inflow of both physical and legal entities was noted. The operation of the laboratory is customer-oriented, so determining the needs and expectations of customers, satisfaction, constant improvement is the main task of each employee of the laboratory.

Compared to 2019 data, the number of research samples submitted to the laboratory increased by 14% in 2020, while the number of researches conducted increased by 19%.



BIOSAFETY

In 2020, the following documentation was developed and approved:

- Emergency Response Plan of the LEPL State Laboratory of Agriculture to prevent the spread of infection caused by the New Coronavirus (SARS-CoV-2).
- Action Plan of Measures of the LEPL State Laboratory of Agriculture (to return to normal mode) to be taken to prevent the spread of infection caused by the new coronavirus (SARS-CoV-2).
- Waste Management Plan of the LEPL State Laboratory of Agriculture.
- Labor Safety and Health Regulations of the LEPL State Laboratory of Agriculture

Employees of the LEPL State Laboratory of Agriculture were trained in labor safety, biosafety, and biosecurity.

40 interns and specialists underwent short-term training in occupational safety, biosafety, and biosecurity for laboratory internships.

In order to prevent the spread of infection caused by the new coronavirus (SARS-CoV-2), complete disinfection works were carried out twice in the laboratory together with the relevant authorized organizations; Daily disinfection work and wearing a mask were routinely monitored.

The control program of deratization and disinfection (arthropods and rodents) was introduced in the LEPL State Laboratory of Agriculture and the services provided by the relevant organization were monitored within the program

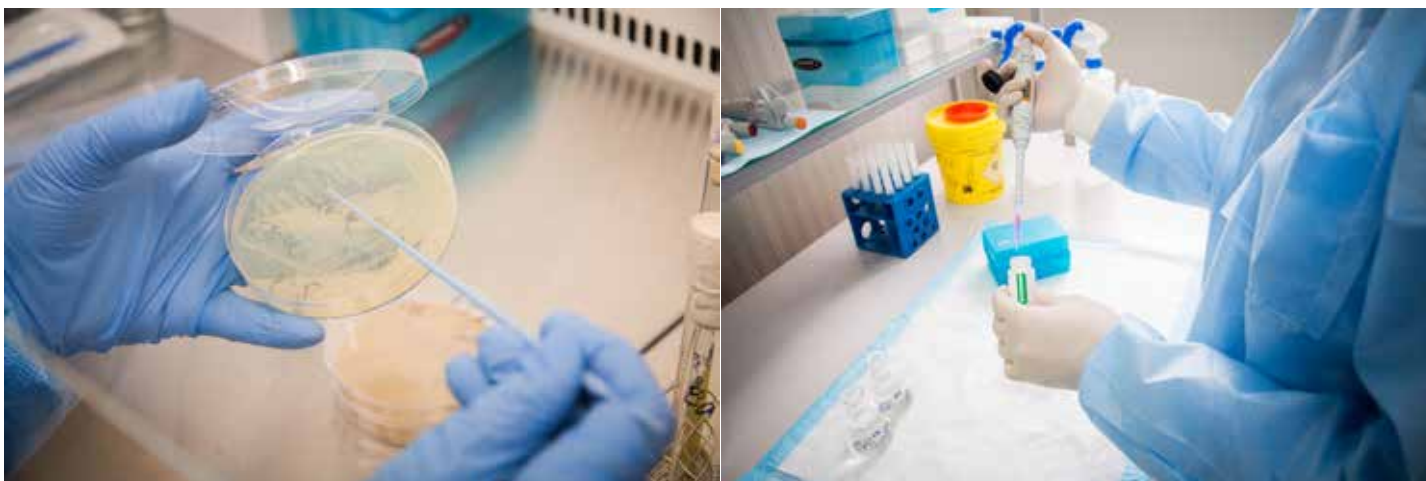
Department of Plant Pest Diagnosis

During 2020, the following studies were developed and implemented:

- Morphological clarification of *Arsphenamine virginica* (L / B.S.P.); Morphological clarification of *Arsphenamine indica* (L / B.S.P.);
- Detection and morphological-biochemical identification of bacterial cancers - *Agrobacterium tumefaciens* and *Agrobacterium Vitis*;
- Detection and morphological-biochemical identification of *Xanthomonas Fragaria*, the bacterium that causes angular spots on strawberry leaves;
- Detection and morphological-biochemical identification of *Acidovorax citrulli*, the pathogen of pumpkin fruit spotting and seedling wilting;
- Morphological clarification of *Cassia occidentalis* L;
- Morphological clarification of *Cassia tora* L;
- Morphological-morphometric characterization and identification of *Radopholus similis*; Morphological-morphometric characterization and identification of *Longidorus elongates*;
- Detection and morphological-biochemical and PCR identification of the bacterium that causes angular spots on strawberry leaves;
- Detection of BLSV;
- Detection of BSSV;
- Detection of ArMV;
- Identification of horse and donkey meat by RT PCR method; Bacteria *Xanthomonas pruni* Identification by PCR method.

The following standard operating procedures have been developed and approved:

- Morphological-morphometric characterization and identification of *Aphelenchoides Basseyi*; Morphological-morphometric characterization and identification of *Radopholus similis*;
- Morphological-morphometric characterization and identification of *Longidorus elongates*;
- Dryer cabinet operation and safety (model POL - EKO SLN 53 STD INOD / G);
- Identification of bacteria Concentration of phytopathogenic bacteria by conventional PCR method; Identification of nematodes by polymerase chain reaction method (conventional PCR);
- Verification of phytoplasma detection and identification method; Verification of meat species identification method.



Department of Plant Pest Diagnosis

The staff of the department underwent the following trainings:

- STT ISO / IEC 17025: 2017/2018 Introduction to Internal Accreditation Standards and Internal Audit (conducted at the LEPL State Laboratory of Agriculture by a representative of the Georgian National Accreditation Center) - July (15 employees).
- STT ISO / IEC 17025: 2017/2018 Discussion of critical issues of accreditation standard, impartiality, risk analysis and decision making. Trainer Train Mic National Team Member N. Meladze - July (15 employees);

The Turkish Cooperation and Coordination Agency (TIKA) funded online trainings in Mycology (5 staff members) in September this year on the following topics:

- Detection and identification of *Armillaria mellea*;
- Morphological identification of *Phytophthora* sp. vs *Pythium* sp.;
- Detection and morphological and PCR identification of *Sclerotinia sclerotiorum*, *S. minor*, *Atelia rolfsii*; Morphological identification of *Tilletia indica*.

Training on biosafety issues was conducted in the laboratory.

The staff of the department conducted a training for the staff of Batumi Laboratory:

Tea Tskhadadze

- Distinguish between parasitic and non-parasitic forms of Phyto helminths;
- Detection and identification of quarantine pests causing fungal diseases of plants;
- *Guignardia citricarpa*, the cause of citrus black spot;

- *Stenocarpella maydis* and *Stenocarpella macrospora* causing dry rot of corn; *Chrysanthemum* white rust causing *Puccinia horeana*;
- Potato cancer-causing *Syncytium endobioticum*.

Margarita Choghoshvili

- Morphological identification of species belonging to the genus *Monochamus*;

Students of Kutaisi Akaki Tsereteli University were trained on the following topics:

- Determining seed quality;
- Identification of weeds;
- Morphological identification of species belonging to the genus *Monochamus*;
- Distinguish between parasitic and non-parasitic forms of phylloxera

The employees of the department took part in the competition announced by the LEPL Center for Environmental Information and Education to create a unified database of trainers in the field of agriculture and 6 employees became members of the database (M. Gurielidze, N. Badalashvili, A. Dadegashvili, N. Bokeria, N. Datukishvili, M. Giorbelidze)

Work was underway on projects funded by the Shota Rustaveli Foundation last year:

- Study of potato cystic nematodes (*Globodera rostochiensis*, *G. pallida*) in Georgia and identification of pathotypes (project FR2017 / FR17_35), (D. Ghaganidze);
- "Study of entomopathogenic fungi of hazelnut bud mites in order to promote the production of environmentally safe pesticides in Georgia" (YS-19-348) (T. Abramishvili).

Laboratory of Molecular Biology presented 2 abstracts and 2 scientific papers at the International Congress of Nematologists:

- Morphological and Molecular identification of potato cyst nematode isolates from Georgia;
- Phylogenetic analysis of Georgian populations of potato cyst nematodes *Globodera rostochiensis*

Articles have been published in scientific journals:

Article entitled "Fire blight distribution in Georgia and characterization of selected *Erwinia amylovora* isolate". International Journal of Plant Pathology (Springer) 2020, 24 November; D. Ghaganidze; M. Aznarashvili; E. Abashidze; M. Zubadalashvili; M. Gurielidze.

- M. Giorbelidze, N. Datukishvili. Bean culture weeds, on the website of the magazine "Agrarian Georgia" 01.12.2020.
- M. Giorbelidze, N. Datukishvili. Weeds for human consumption, on the website of the magazine "Agrocaucasia" on 22.12.20.

Articles were posted on the laboratory website:

- Bean crop weeds; Sunflower weeds; Vine weeds;
- Weeds for human consumption; Weeds of corn crop;
- Pests of horticultural crops; Potato weeds;
- Allergenic weeds;
- Dye weeds;
- Tea plant pests; Poisonous weeds; Wheat pests;
- Weeds spread in the suburbs of Tbilisi; Weed culture weeds;
- Use of weeds in plant protection; Kiwi weeds;
- "Nut diseases and weeds"; Vine ash (*Uncinula necator*); Vine cancer;
- Vine Stem Disease - Eutypa dieback - *Eutypa lata*;
- Vine Stem Disease – Esca;
- Potato Phytophthora- *Phytophthora infestans*;
- Almond vascular disease *Verticillium* wilt.

The staff of the department participated in the following meetings, seminars, and the work of the commissions:

- A study visit organized by the Food and Agriculture Organization of the United Nations (FAO) to get acquainted with the certified mother and root nursery system in Italy and in order to capture the experience; 19 - 25.01.2020; 1 employee;
- A department employee participated in a NFP Forest Restoration and Conservation Workshop (via the online platform Zoom);
- An employee of the department participated in the work of the Georgian Wheat Protection Group established by the order of the Minister;
- EPPPO Online Workshop on ISO Standard 17025 (2017) and PM 7/98 (4). Plenary session; 2 employees;
- 2 employees of the department participated in the inventory commission.



Department of Plant Pest Diagnosis

Participation in qualification tests:

A nematologist from the Entomology Laboratory participated in a qualification test organized by the Czech Central Institute for Agricultural Supervision and Testing (UKZUZ):

- Isolation of *Globodera pallida* and *Globodera rostochiensis* potato cyst nematodes from soil;
- Species identification of *Globodera pallida* and *Globodera rostochiensis*.

The results obtained were 100% consistent with the expected results.

The staff of the Phytopathology Laboratory participates in the qualification test organized by the Central Institute for Agricultural Supervision and Testing of the Czech Republic (UKZUZ):

- Species identification of the pathogenic fungus *verticillium* that causes swine fever. Test results will be announced in February

The staff of the department prepared professional testing panels for the staff of the Batumi Regional Laboratory in Phytohelminthology, Entomology and Mycology.

Participation in interlaboratory testing:

Inter-laboratory testing of samples was carried out to verify the results of studies conducted between the Department of Plant Pest Diagnostics and the Scientific Research Center of Standards, Certification, Planning and Economics Analysis Service:

- June - one specimen of wheat, one of corn, two specimens of sunflower;
- September - 4 samples of wheat.

An employee of the Molecular Biology Laboratory performed a fragment analysis of 450 vine samples, within the framework of a memorandum with the Research Center of the Ministry of Agriculture. Data software analysis will be completed with the staff of the Center.

Department of Animal Diseases Diagnosis

Laboratory of Pat. Morphological Studies and Parasitology

During 2020, different types of samples taken from different animals were obtained and examined in the Laboratory of PathoMorphological Studies and Parasitology.

Established: Histological examination in one case of avian lymphocytosis, parasitological examination revealed diseases caused by various types of parasites.

Diseases caused by helminths and protozoa: paraphistomatosis, microcelliosis, strongylosis, pasaluus, coccidiosis, heteracidosis, isoperiodic, toxocariasis, trichocephaly, peloderosis.

Diseases caused by skin parasites: acarapitosis, varicose veins, heelitis, demodectic mange, sarcoptosis, noto-odrosis, otodectosis, thrombosis, notoedrosis.

Fungal diseases of the skin: microsporosis (kerion), trichophytosis, malaise.

Demodicosis qualification panel was prepared for regional laboratories at the request of the Ministry of Internal Affairs. PatoMorphological examination protocols (veterinary examination report) were prepared. In many cases, metal bodies were removed from the carcass of a dead animal as evidence.

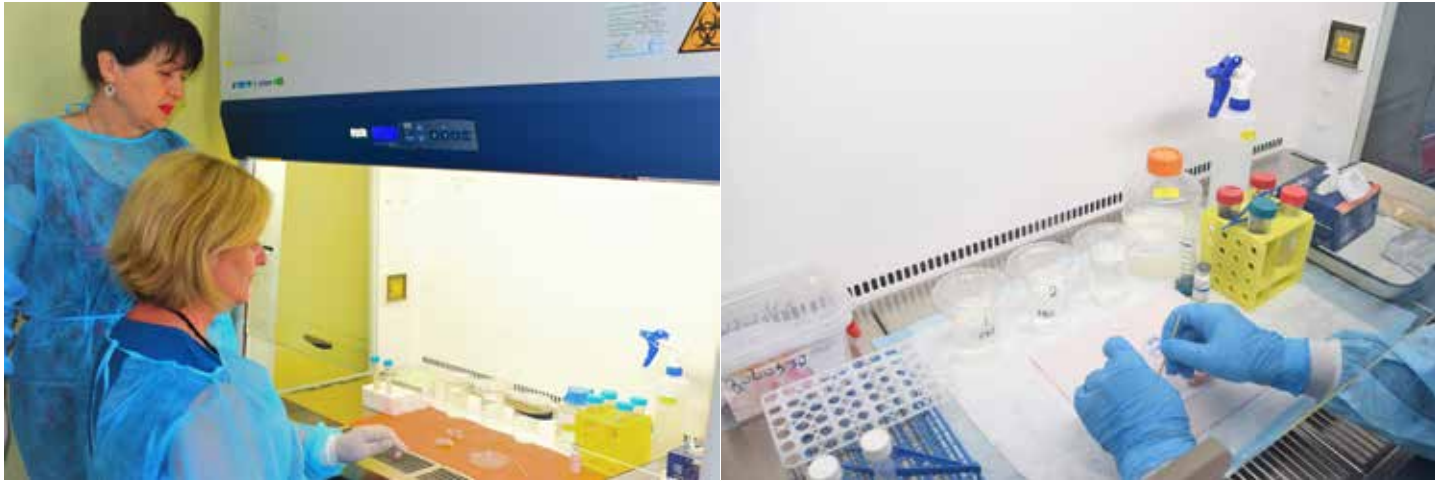
At the beginning of the year, they participated in the laboratory satisfaction survey.

Several groups of students of the Faculty of Animal Husbandry of the Technical University, at different times, were given seminars on various diseases of animals and birds - Trainings were about the diagnostic issues of path. Anatomy, parasitology and histology and the principles of practical work of the laboratories of Path-Morphological studies and Parasitology

In December, they participated in an online seminar on "Strengthening the competencies of veterinary labor (human) resources and veterinary paraprofessional (VPP) in Georgia."

Also, on December 27, in the LEPL State Laboratory of Agriculture was held a staging a sample taking for cloud encephalopathy, organized by the international organization FAO. Which was attended by both our specialists and veterinarians of the National Food Agency.

The specialists of the laboratory have successfully passed the national accreditation



Department of Animal Diseases Diagnosis

Laboratory of Bacteriology

Laboratory specialists underwent annual up-to-date training at Lugar Third Level Laboratory.

Existing standard operating procedures (SOPs) were reviewed, updated, and developed. In particular::

- SOP-215-2016-G- "Determination of the degree of bacteriological contamination of sperm (veterinary)", which was updated based on reference GOST- 32198 - 2013 - MEANS OF SPERM PRODUCTION Methods of microbiological analysis – 2014;
- SOP-217-2016-G- was changed, literature was added to Chapter XII;
- SOP-218-2016-G- "Primary isolation of listeria from animal path. Material and growth characteristics" Procedural steps – completely;
- SOP-214-2016-G- Listeria - Biochemical Test - Catalase, Chapter XII - Literature was added;
- SOP-216-2016-G- Listeria - Test of movement skills Chapter XII - Literature added;
- SOP-219-2016-G- Listeria-B Determination of hemolytic activity Chapter XII References were added to the literature;
- SOP-655-2016-G- Primary isolation of Salmonella from animal path. Material, feces and environmental samples - characteristics of the growth (veterinary) - Procedural steps - as a whole;
- SOP-312-2016-G- EFB - primary isolation of the culture from Bee path. Material (worker bees, pine, larva / shell), where: VI. Reagent - material / supplies and equipment, 3. Preparation of nutrient soil, quantities of nutrient soil changed. The main specialist of the laboratory - Maka Kokhreizze was sent to the Kutaisi Zonal Laboratory to introduce the diagnosis of covid-19 disease.

The laboratory underwent an annual assessment by the National Accreditation Center and an accreditation audit to expand the scope of accreditation, during which several discrepancies were identified, and corrective action was planned for these discrepancies.

They had a meeting with the representatives of TIKA, where they discussed the previous year's report and future plans, developed the expected risks of the activity and impartiality, participated in the scientific conference dedicated to the International Veterinary Day: "Assessment of anthrax decontamination in Georgia."

A professional testing panel was prepared for the Kutaisi Zonal Laboratory about AFB and BFB.

The laboratory continues the process of working on scientific research projects.

Laboratory of Virology and Molecular Biology

During the current year, the Laboratory of Virology and Molecular Biology introduced the ELISA method for the study of the disease required by the EU regulation, bovine spongiform encephalopathy.

Real-time rabies diagnostic method with real-time polymerase chain reaction (RT-PCR) underwent validation in the laboratory

Developed by:

SOP 1. Scrapie antigen detection immunoenzymatic analysis for bovine spongiform encephalopathy (BSE).

Algorithms:

- Algorithm for laboratory diagnosis of Bovine spongiform encephalopathy (BSE) - Scrapie (serology);
- Laboratory Diagnostic Algorithm for Sheep Catarrhal Fever (Bluetongue) (Serology & Molecular Biology).

Verification documents:

- Detection of the bacterial genome (species) of brucellosis by classical polymerase chain reaction (PCR) with target specific reagents using primer probes, electrophoresis;
- Detection of the bacterial genome of *C. burnetii* by instant polymerase chain reaction (PCR) with target specific reagents using primer probes;
- Detection of African swine fever virus (ASFV) genome by instant polymerase chain reaction (RT-PCR) with target specific reagents using the Light Cycler tool;
- Detection of the tularemia bacterial genome by instant polymerase chain reaction (RT-PCR) with target-specific reagents using the Light Cycler instrument.
- Detection of the *Katoa* bacterial genome by instant polymerase chain reaction (RT-PCR) with target specific reagents using the Light Cycler tool;
- Detection of the classical swine fever virus (CSFV) genome by instant reverse transcript polymerase chain reaction (rRT-PCR) with target-specific reagents using the Light Cycler tool;
- Detection of foot and mouth disease (FMD) genome by instant reverse transcript polymerase chain reaction (rRT-PCR) with target specific reagents using the Light Cycler tool;

- Detection of smallpox virus (PPR) virus by instant reverse transcription polymerase chain reaction (rRT-PCR) with target specific reagents using the Light Cycler tool;
- Detection of bovine plague (PRV) virus genome by instant reverse transcription polymerase chain reaction (rRT-PCR) with target-specific reagents using the Light Cycler tool.

Updated:

SOPs

1. SOP-008-2016-G - Use of "LightCycler® 2.0" tool; Instant polymerase chain reaction to detect animal pathogens using Roche Light Cycler® 2.0";
2. SOP-080-2016-G - "Methods of equipment verification and analysis ";

Journal 1. F-165-2017-G "Journal of Diagnostic Expenditure (Serology)"; examination Laboratory Accreditation Scope - The laboratory has moved to the field of flexible accreditation.

Revised:

Journal of Diseases.

Prepared for approval:

SOPs:

1. Dual antigen ELISA, which detects antibodies against Crimean-Congo Hemorrhagic Fever Virus (CCHFV);
2. # SOP-227-2016-G-Title: "Identification of Clostridium spp species using Classic and Real Time (RT-PCR) polymerase chain reaction (veterinary) "



Department of Animal Diseases Diagnosis

Algorithm:

1. Crimean-Congo Hemorrhagic Fever (CCHF) Laboratory Diagnosis Algorithm (Serology & Molecular Biology).

Verification document:

Detection of Clostridia species - bacterial genome by instant polymerase chain reaction (RT-PCR) with target specific reagents (primer probes) using Light Cycler tool.

Registration log:

Bovine spongiform encephalopathy (BSE) and scrapie (Scrapie).

The laboratory worked on the samples of the qualification testing panel: Capripox Panel Sciensano Reference Laboratory Brussels, Belgium -June.

Smallholder Plague (PPR Panel) Cirad OIE / FAO / EU Reference Laboratory Montpellier, France - August.

Bluetongue (BTV Panel) APHA VETQAS; UK - October.

Cattle Bovine Spongiform Encephalopathy (BSE) - Scrapie (BSE-Scrapie Antigen Detection ELISA Panel) APHA Webbridge; UK November.

Inter-laboratory trainings were held in the laboratory:

The chief specialist of Kutaisi Zonal Laboratory T. Pirtskhalava underwent a week-long training in the diagnosis of brucellosis by the FPA method and the detection of structural and non-structural proteins by the FMDV ELISA method. Familiarized with and studied the calibration techniques of the FPA device Sentry 201.

Laboratory specialists underwent annual biosafety training at Lugar Third Level Laboratory.

The students underwent an internship in the laboratory based on a memorandum signed with Tbilisi State University and Agricultural University.

The laboratory underwent an annual assessment by the National Accreditation Center and an accreditation audit to expand the scope of accreditation, during which several discrepancies were identified, and the discrepancies were corrected.

The laboratory continues the process of working on scientific research projects..

Rabies Diagnosis Laboratory

In addition to the daily routine activities, which include diagnosing samples taken from the brains of various animals, using microscopic and bioscientific methods, the specialists were involved in various activities planned by the department:

Participated in laboratory satisfaction surveys. Successfully passed the national accreditation. Within the framework of the memorandum, two students underwent three-day training:

1. Baisashvili Tamar and 2. Kharebava Mariam.

On July 28, 2020, Nanuli Khaiauri was involved in a Facebook live on the topic "Beware of rabies"

Vivarium

White mice-1640, rabbits-9 and guinea pigs-2 were removed from the vivarium for biological tests by 2020.

In Vivarium experimental laboratory animals, 1481 souls and 7 rabbits were obtained by breeding on the spot. The following types of preventive measures have been taken in laboratory animals and their stalls in Vivarium:

1. Disinfection-12 times
2. Disinsection-3 times
3. Deratization-1 times

Vivarium specialists carried out their daily routine with a lot of responsibility and care for the animals.

The laboratories within the department have successfully fulfilled their obligations under the agreement signed with the National Food Agency (N1 / 7) within the set deadlines - to diagnose particularly dangerous animal diseases, infectious and non-infectious diseases, bacterial and parasitic diseases.

The agreement also monitored post-vaccination immune strains for diseases such as rabies; Catarrhal fever (bluetongue); Plague of small cattle; FMDV.

Contracts with business operators have been successfully and responsibly fulfilled. The department has developed a four-year plan for the Qualification Testing Panel.

The laboratory required for the implementation of laboratory activities in 2021 has been developed. Procurement documents and diagnostic equipment, as well as the procurement process of some diagnostic kits.

Activities on methods and research to be introduced in 2021 are set.

With the active involvement of the specialists of the department, the diagnosis of Covid-19 disease in humans was introduced in the zonal diagnostic laboratories of Kutaisi, Akhaltsikhe and Tbilisi.

Despite the state of emergency caused by the pandemic in the country, due to the special status of the Department of Animal Diseases (Particularly dangerous pathogen Diagnostics), the specialists of the Department have shown high civic and official responsibility and we have completed 2020 with the successful implementation of our assigned and planned activities.

Food Research Department

The Food Research Department of the LEPL State Laboratory of Agriculture strengthens the potential of laboratory research, plans the introduction of new research methods in accordance with modern standards.

During 2020, the Food Research Department of the LEPL State Laboratory of Agriculture, despite the coronavirus pandemic, worked to achieve the set goals of microbiological and physico-chemical research.

New research methods were developed and introduced, the scope of accreditation was expanded, specialists participated in trainings.

The Department is actively involved and supports the current educational process in the country, cooperates with professional and higher education institutions in educating future specialists.

Students of the Spectrum and Mermisi vocational schools and students of the Tbilisi State Technical and Agricultural University underwent practical training in the current period.

New research methods have been introduced:

- Detection of staphylococcal enterotoxin in milk and dairy products according to the instructions for use of the VIDAS test (Val. SST ISO 19020: 2017);
- Salmonella spp. Species serotyping of pure culture Salmonella enteritidis, Salmonella typhimurium according to SST ISO 6579-3: 2014/2015;
- Determination of total water content in frozen chicken and individual pieces of chicken (SST ISO 1442:2008; SST ISO 937:2008) Determination of thickness in flour and bran (GOST 27560-87);
- Determination of aflatoxin M1 in milk using high performance liquid chromatography;
- Determination of macrolides and tiamulin by honey in a liquid chromatograph coupled to a triple quadrupole mass spectrometer (LC / MS / MS).



Food Research Department

3 validation protocols were signed:

- Determination of aflatoxin M1 in milk using high performance liquid chromatography;
- Determination of macrolides and tiamulin in honey by liquid chromatography coupled to a triple quadrupole mass spectrometer (LC / MS / MS);
- Determination of heavy metals: copper, zinc, and iron in water by atomic emission spectrometer Agilent Technologies 4200 MP-AES.

Verification:

Verification of the method for the determination of aflatoxin B1 and the sum of aflatoxins B1 + B2 + G1 + G2 (in nuts) was performed.

New standard operating procedures have been developed:

- "Food antimicrobial susceptibility test by disk diffusion method; Detection of staphylococcal enterotoxin in milk and dairy products; Drinking water analysis with IDEXX technology;
- "Determination of total water content in frozen and fast-frozen chickens (as well as in individual pieces of chicken; - chemical method) “;
- "Determination of thickness in flour and bran;
- Determination of aflatoxin M1 in milk using high performance liquid chromatography;
- Determination of macrolides and tiamulin in honey by liquid chromatography coupled to a triple quadrupole mass spectrometer (LC / MS / MS) By the criterion of validation of the procedure;
- Determination of heavy metals: copper, zinc, and iron in water by atomic emission spectrometer Agilent Technologies 4200 MP-AES with validation criteria.

Trainings:

- Training of "Science of Laboratory Safety" was conducted within the GQSP program;
- Within the framework of GQSP program was held the training "ISO / IEC 17025:2017“;
- On February 27, 2020, a training (by specialists of the Microbiology Laboratory) was conducted on the method of microbiological testing of drinking water with IDEXX technology for the regions: Dusheti, Gurjaani, Ozurgeti, Gori, Ambrolauri.

On the following indicators:

- Detection of E. coli and coliform bacteria Part 2 - Method of calculating the most possible number - SST ISO 9308-2: 2012/2013;
- Mafanmr - According to HPC Quanti Tray;
- On July 22 and December 21, 2020, drinking water drills were monitored for laboratories in Dusheti, Gurjaani, Ozurgeti, Gori and Ambrolauri;
- Laboratory Training in Food Safety Veterinary Drug Residues in Milk and Dairy Products (it is expected that this training will continue until 2021).



გარემოსდაცვითი
და აგროკულტურის
განათლება სკოლა



გარემოსდაცვითი
და აგროკულტურის
განათლება სკოლა

ENVIRONMENTAL INFORMATION AND EDUCATION CENTRE

The main goals of the Centre for Environmental Information and Education are to promote environmental and agrarian education and raise awareness, involve the public in the decision-making process, ensure access to environmental and agrarian information, and implement a unified information technology policy of the Ministry.

To achieve these goals, the three main structural units of the Centre - Education Projects, Environmental Information, and Information Technology Services - carry out important activities.

Environmental Information and Education Center

«ENVIRONMENTAL AND AGRARIAN EDUCATION IN SCHOOL» - A NEW PROGRAM IN THE GENERAL EDUCATION SPACE

To promote environmental and agrarian education in the general education area, the Centre has developed a support manual “Environmental and Agrarian Education in Schools”. The manual is intended for primary school teachers and combines 8 environmental and agrarian topics: the concept of development; Biodiversity protection; Water resources protection and sustainable management; Protection of air from pollution; Climate change and natural threat reduction; Waste management; Land management and the fight against desertification; Agriculture. Food safety and quality.

PROMOTING COMMUNITY INVOLVEMENT IN ENVIRONMENTAL DECISION-MAKING

Due to the activities of the Centre for Environmental Information and Education, one of its main functions is to effectively involve the public in the environmental decision-making process.

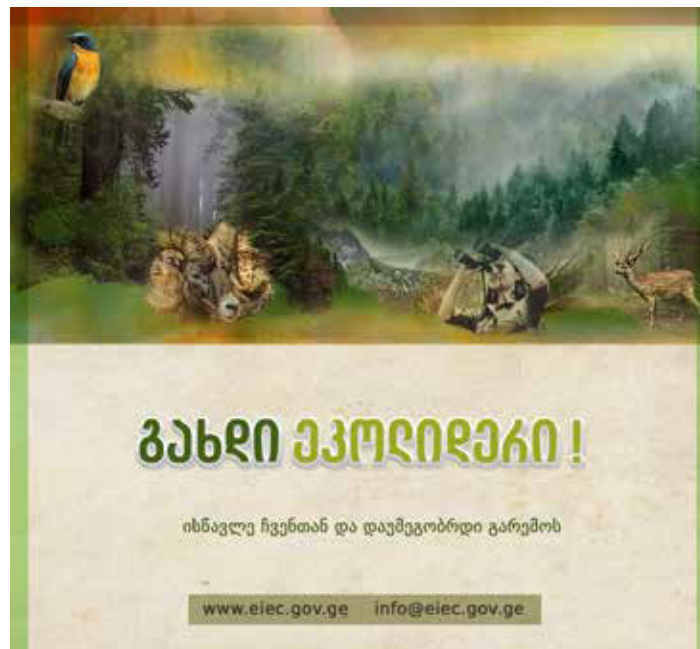
To achieve this goal, in 2020, the Centre organized the draft law of Georgia "On Environmental Responsibility" and Online Public Discussions of “2020-2022 Rustavi Atmospheric Air Quality Improvement Action Plan”.

Given the epidemiological situation in the country, the Centre ensures that the Ministry publishes e-mail announcements on screening, scoping, and environmental decision-making to more than 6,000 recipients of information. Also, through the official website and Facebook page.

SCHOOL OF ECO-LEADERS

The Centre for Environmental Information and Education has offered the public an updated Eco-Leader School program in 2020. 375 students from all over Georgia expressed their desire to participate in the school. 35 participants were selected based on applications and interviews. Participants in the School of Eco-leader were selected through a competition who spent 3 months conducting remote meetings and online workshops on various environmental topics due to the covid-19 pandemic.

A total of 13 webinars were held within the project. Lectures covered topics such as human rights, waste management policy, sustainable development goals, environmental policy, climate change, atmospheric air, soil degradation and desertification, biodiversity conservation mechanisms, public relations and planning environmental awareness-raising campaigns, current conservation projects, photography and environment protection



Eco Leaders' School

INCREASE FARMERS' CAPACITY

To strengthen farmers' capacity:

- The Center together with the RDA developed trainings on “Modern technologies of high, quality and solid wheat harvest”. Trainings were held for farmers of Kakheti region. 123 farmers were trained.
- Trainings on hazelnut crop care technologies were held within the framework of the "Eco-Grants Program". The trainings were held in 3 municipalities of Guria, 3 in Imereti, and 7 in Samegrelo-Zemo Svaneti. A total of 286 farmers were trained.
- Trainings for local beekeepers on honey production and bee family care were conducted within the framework of the Eco-Grants Program. Trainings were held in eight municipalities of Imereti (Zestaponi, Tskaltubo, Chiatura, Sachkhere, Terjola, Tkibuli, Baghdadi, Kharagauli). A total of 160 farmers were trained.





DEPARTMENT OF ENVIRONMENTAL SUPERVISION

The mandate of the Department extends to the following areas:

- Protection of atmospheric air, water, land, entrails, and biodiversity, including compliance with the requirements of Georgian forest legislation.
- Control over the use of natural resources.
- Chemical safety, waste management control.
- State control over the use of living genetically modified organisms.
- Control of illegal exports, imports, re-exports, and imports by sea of the species, parts or derivatives listed in the CITES Annexes.
- Control of issued licenses (except mineral extraction licenses) / permits and environmental decision conditions.
- Control of compliance with the quality norm of motor fuel.
- Control over the production of plastic and / or biodegradable parks.
- Control over the service of refrigeration equipment.

DEPARTMENT OF ENVIRONMENTAL SUPERVISION

STRENGTHEN ENVIRONMENTAL STATE CONTROL

Capacities of the Department of Environmental Supervision have been strengthened:

- 256 newly recruited environmental patrol and rapid response staff under the auspices of the German Society for International Cooperation (GIZ) project “Strengthening the Capacity of Patrol and Rapid Response Officers of the Department of Environmental Supervision” received internships within the competence of the Department.
- To improve the qualifications of environmental inspectors, inspectors were trained on various topics - aspects of inspection (50 inspectors), inspection of stationary equipment working on refrigerants (20 inspectors), environmental control, water pollution (12).

As part of the ongoing reform of the forestry sector, the Department of Environmental Supervision continues to be strengthened to ensure effective timber control:

- As part of a project supported by the Green Climate Fund (GCF), measures have been developed to improve forest surveillance and law enforcement for 2021-2027, including the introduction of state-of-the-art surveillance mechanisms and technologies and implementation of training for environmental patrols and rapid response staff, forest inspectors working towards the control measures of forest resources.



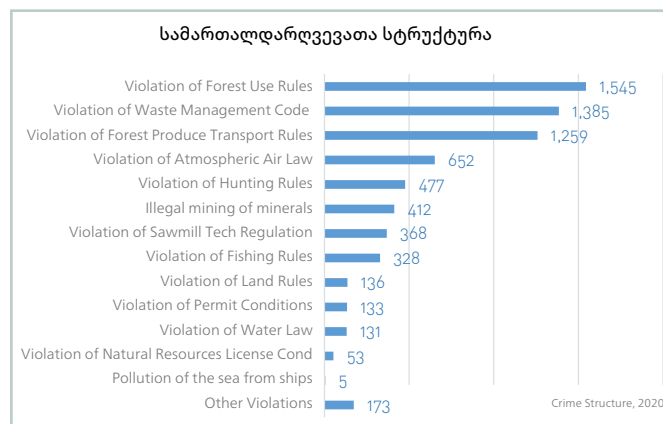
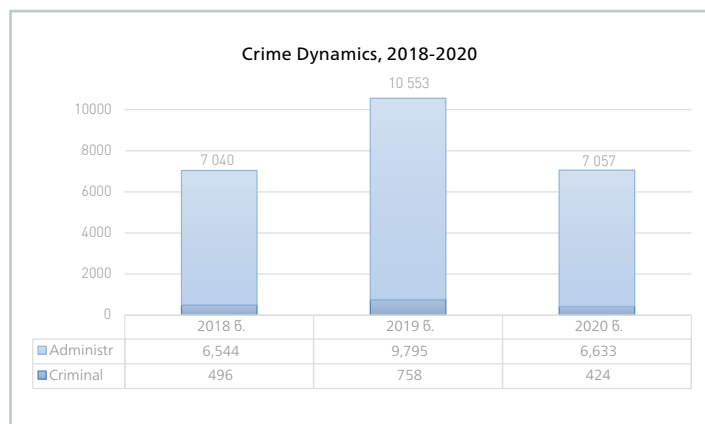
To increase the efficiency of state control, measures are being taken to develop electronic systems:

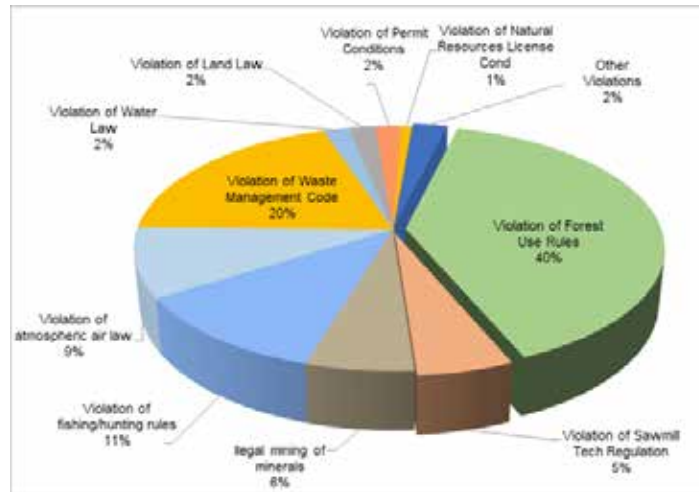
- The electronic module "Treasury Code - on the payment of the fee for the removal of migratory birds from the environment" was introduced, which enabled the controller to verify the payment of the fee in the electronic system (ms.emoe.gov.ge). And the citizen was released from the obligation to have a receipt for the payment of the fee for the removal of migratory birds from the environment during the hunting season.
- To ensure compliance with the obligations of the EU-Georgia Association Agreement illegal, undocumented, and unregulated (IUU) fisheries, a satellite electronic monitoring system has been procured. As a result, continuous control of ships sailing under Georgian flag involved in fishing in the territorial or open sea under foreign jurisdiction is conducted.

RESULTS OF INSPECTIONS AND PATROLS

In 2020, inspections and patrols revealed 7,057 cases of violations of environmental legislation. Between them:

- Administrative violation - 6,633 facts.
- Criminal marks - 424 facts





- The fine imposed on offenders amounted to GEL 2,191,190
- The estimated amount of damage to the environment because of violation of environmental legislation amounted to GEL 4,121,306

Fines and damage to the environment, 2018-2020.

Year	Fine GEL	Damage GEL
2018 ႁ.	3 850 800	10 033 170
2019 ႁ.	2 887 580	7 619 221
2020 ႁ.	2 191 160	4 121 306

INSPECTION OF REGULATION FACILITIES

In 2020, 1,760 inspections of regulatory facilities (natural resource use licenses, environmental permit holders, enterprises subject to environmental technical regulations) were carried out, including planned and unsuccessful inspections of 144 regulatory facilities:

- 58 - an object subject to an environmental impact permit, or an environmental expert report, or an environmental decision.
- 5 - Special license for timber production.
- 9 - Special license for hunting, fishing.
- 20 - Sampling / testing of agricultural crops to identify GMO species.
- 52 - Inspection of ships entering Georgian ports.

During 2020, administrative correspondence was developed and submitted to 102 regulatory entities - to take mandatory measures or to refrain from any actions within a reasonable time to inspect or report on their activities and violations detected in other processes.

PREVENTIVE MEASURES

Control of genetically modified organisms

In 2020, in accordance with the Law of Georgia on Live Genetically Modified Organisms, 20 inspections were carried out to take samples of agricultural and legal land owned by agricultural land sown and / or warehousing farms and to identify species of live genetically modified organisms. According to laboratory results, the study samples did not contain GMO markers..

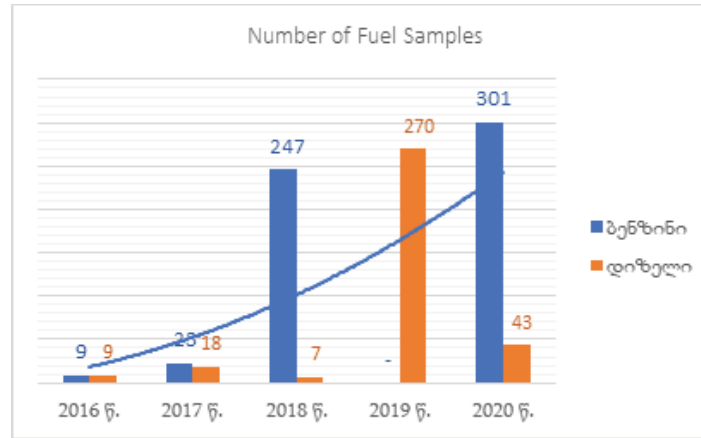
Control of plastics and biodegradable parks

To meet the requirements of the legislation in the production of plastic and / or biodegradable parks, in 2019-2020, 43 facilities were inspected, and relevant laboratory studies were conducted. 2,142,450 units of plastic bags were sealed and confiscated.

2020 Fuel quality control

In 2020, in order to comply with the norms established by the legislation on the quality of motor gasoline and diesel fuel, 344 fuel sampling and laboratory examination procedures were carried out from the reservoirs of 280 gas stations located in Tbilisi and the regions of Georgia.

The study revealed that the sulfur content in 14 samples of diesel fuel and the octane number in 19 samples of gasoline fuel did not meet the norms required by law.



During 2020, preventive measures were taken to prevent, detect and suppress the operation of unregistered sawmills, as well as the processing of illegally harvested timber:

- As of 2020, 741 round timber (logs) processing workshops are registered in the electronic timber resource management system.
- 84 unregistered, illegal sawmills were identified

Gasoline research results				
Year	Number of samples	Violation according to quality indicators		
		Sulfur mass Share mg / kg	Octane number	Lead content g / l
2016	9	-	-	-
2017	23	-	-	-
2018	247	-	-	-
2019	-	-	-	-
2020	301	-	19	-
Total	580	-	19	-

Gasoline research results				
Year	Number of samples	Violation according to quality indicators		
		Sulfur mass Share mg / kg	Octane number	Lead content g / l
2017	18	3	-	-
2018	7	-	-	-
2019	270	63	-	10
2020	43	14	-	1
Total	347	80	-	11
Total	580	-	19	-

Control of round timber processing workshops

Regions	Sawmills	
	Registered	Not registered
Tbilisi	4	2
Mtskheta-Mtianeti	11	3
Shida Kartli	66	6
Kvemo Kartli	4	2
Kakheti	60	3
Samtskhe Javakheti	111	4
Imereti		14
Racha-Lechkhumi Kvemo	83	-
Svaneti		
Guria	41	6
Samegrelo –Zemo Svaneti	145	28
Adjara	111	16
Total 2020	770	84

Control of pollution and fishing in the Black Sea

By the Convention on the Protection of the Black Sea under the MARPOL 73-78:

- 52 ships entering Georgian ports were inspected to determine compliance with environmental requirements.
- 5 cases of sea pollution from ships were detected. Those responsible were fined GEL 65,000 each. The estimated total amount of damage to the environment was 20,196 GEL. Control over the implementation of sea pollution elimination measures is established.

The raids in the Black Sea area revealed 14 cases of violations of fishing rules.

Hotline

In 2020, the Hotline - 153 received 2,872 reports of violations of environmental legislation, to which the Department responded and took the measures prescribed by law.

Events planned for 2021

The following measures are planned to be implemented in 2021:

- Carrying out compliance studies with the norms established by the legislation on motor fuel quality.
- Carry out inspections to determine compliance with legislation during the production of plastic and / or biodegradable parks.
- Introduce an electronic refrigerant management system to control the service of refrigerant equipment and carry out relevant training, including training planning and implementation for entrepreneurs.
- Re-registration and inspection of round timber processing (sawmill) workshops in accordance with the requirements of the Resolution # 46 of the Government of Georgia of January 10, 2014.
- Implement rapid response capacity building measures for forest control (under the GCF), including procurement of equipment, preparation of a training program and its implementation from 2022.
- Training of inspectors to get acquainted with best practices in various projects and use them in the inspection process.
- Development of existing electronic systems to promote state control of the environment, preparation of proposals for the creation of new systems.





NATIONAL AGENCY FOR WILDLIFE

The National Agency for Wildlife of the Ministry of Environment and Agriculture works to restore the flora and fauna of Georgia, endemic and rare species, to register and monitor local species and their habitats.



NATIONAL AGENCY FOR WILDLIFE

The National Agency for Wildlife is implementing a project to breed river trout, a species on the Georgian "Red List". Stream or river trout were included in the "Red List" in 2006. Has been assigned a vulnerable category. Such a trend is observed in many European countries, due to which the population is artificially multiplied and released in rivers. Without such a measure, the species in the rivers of Georgia will be lost over time. That is why the Wildlife Agency works to breed different populations of stream trout and then release in the rivers. A 160 square meters building was built within the river trout breeding facility where the trout incubator and salivary ponds were located. The building was constructed where a trout incubator and fry ponds were located. This incubator facility will allow the Agency to have more than 500,000 brooded fries.

- In 2020, the Wildlife Agency produced 80,000 stream trout fries. To restore nature, more than 100,000 fries were released in 5 locations in Georgia, including protected area rivers. Released fish are monitored with photo and video traps..



- The Wildlife Agency is actively working to breed local wild birds, Rock partridge, Ring-necked Pheasant, Western swamphen, and Grey partridge and to restore their populations in the nature.



**Setting *lectoris graecas*
free into the nature**



lectoris graecas



Porphyrio porphyrio

- In 2020, a Ring-necked baby Pheasant farm was established in the village of Nojikhevi, Khobi Municipality. The farm includes nature-integrated aviaries, incubator-baby pheasant buildings and an administrative building. Corn grains were sown on 8 hectares this year to provide food for the farm. One of the main goals of the farm is to breed a Ring-necked pheasant and release them into the wild nature. The Wildlife Agency has released 200 Ring-necked pheasants into the protected areas of Georgia and 100 of them in the wild nature. In 2021, 500 Rock partridges and 500 Ring-necked pheasants are planned to be released in the wild nature.
- In addition, the National Agency for Wildlife carries out breeding of plants of the Red List of Georgia, forest-forming and urban species including Zelkova, Hop-hornbeam, Pistacia atlantica, Quercus hartwissiana, Quercus Pontiac, Quercus macraner, Buxus colchicus and Wild Castanea.



Plant nursery

WILDLIFE AGENCY IS CARRYING OUT LARGE-SCALE WORKS FOR THE RESTORATION OF KRTSANISI FOREST PARK

- The Wildlife Agency of the Ministry of Environment Protection and Agriculture is working on the renovation and restoration of the Krtsanisi Forest Park. The existing unique flora and fauna are being preserved and the plants of the Red List species are being cultivated. The agency is carrying out measures to restore the infrastructure of the Mtkvari floodplain and the green cover in the forest park.
- To protect the park from illegal cutting and poaching, 150 ha of Krtsanisi forest park area has been fenced.
- The construction of a 100-kilowatt solar power plant in the forest park, funded by the Global Environment Facility (GEF, Mtkvari 2, UNDP), has been completed. The generated electricity is used to illuminate the irrigation water pumping station, floodplain forest irrigation systems, the existing 11 fishery ponds and the own forest park roads and paths.
- An irrigation water pumping station designed by the Wildlife Agency will be in the forest park on the Mtkvari River soon. Also, the construction of the head office of the Wild Nature Agency is underway in Krtsanisi Forest Park, which will be completed by the spring of 2021. The Wildlife Agency arranged a parking lot at the entrance of Krtsanisi Forest Park and placed a security service.

- As a result of large-scale work carried out by the Wildlife Agency, the park will regain its most important function. The forest park is a natural ecosystem of the Mtkvari floodplain, and it is a recreational space between Tbilisi and Rustavi, where you can move only by foot, bicycle, or mini electric car. It is planned to plant a conference hall of the "Green Council" and a mother park of red list species in the forest park.



Rehabilitation efforts of the Krtsanisi Forest - Park



NATIONAL AGENCY FOR SUSTAINABLE LAND MANAGEMENT AND LAND USE MONITORING

Land is an inexhaustible resource of special importance, having the greatest economic, social, and cultural value. Therefore, the rational use and prudent management of the land fund is a priority of the state. To solve these tasks, in 2020, a new agency was established under the Ministry of Environmental Protection and Agriculture - LEPL National Agency for Sustainable Land Management and Land Use Monitoring. The establishment of the Agency laid the foundation for the implementation of the state policy on sustainable land management. The process of forming the institution was going on throughout the year, that is almost completed, and from 2021, it will start implementing its rights and responsibilities.

NATIONAL AGENCY FOR SUSTAINABLE LAND MANAGEMENT AND LAND USE MONITORING

The powers of the Agency is to conduct inventory of agricultural land resources and establish a unified database, prepare thematic maps related to land use, participate in determining the administrative-territorial boundaries, as well as contribute in development and implementation of the state policy on sustainable land management; Participate in the planning and implementation of measures to restore soil fertility and combat desertification and land degradation, carrying out measures related to management of windbreaks (shelterbelts). The Agency is also authorized for receiving and reviewing applications for the investment plans related to privately owned plots of agricultural lands, and overseeing the implementation processes that will provide solid foundations for farmers and agricultural companies to properly plan their activities and rational development of agricultural production. In addition, the Agency compiles the land balance and records in its annual report on any quantitative or qualitative changes in land use, agricultural land categories, agricultural lands, tenure and use, including of any changes inside the entire land fund during the reporting year.

In 2020, a Memorandum of Understanding was signed between the National Agency for Sustainable Land Management and Land Use Monitoring and the National Agency for Public Registry in response to the needs of systematic land rights registration projects. The purpose of this memorandum is the cooperation between agencies within the framework of the “Irrigation and Land Market Development Project” funded by the International Bank for Reconstruction and Development (IBRD), as well as other projects for systematic registration of land rights by the Public Registry.

The cooperation of the agencies envisages the collection and processing of information (archival-field) on the actual use of land plots. The agency will use the information received from the public registry to compile a land balance and create the unified database. The parties will cooperate in developing a methodology for determining the category of agricultural land plots. In addition, during the systematic registration of land rights, agencies will facilitate the process of land consolidation and will participate in the development and implementation of strategic documents in this regard. Collaborate on database production / processing and security. The signing of the memorandum laid the foundation for the practice of joint work of the agencies. Cooperation in various projects will ensure the creation of an information base and tools that will help implement a sustainable land management policy in Georgia.

The new agency will significantly contribute to the development of the land market, agriculture, and rural development in general.



SCIENTIFIC-RESEARCH
CENTER OF AGRICULTURE

LEPL SCIENTIFIC- RESEARCH CENTER OF AGRICULTURE

The Agricultural Research Center is engaged in the development of agrarian science, agriculture and food production, as well as the maintenance of plant and animal agro-biodiversity, the promotion of artificial insemination and breeding activities, the maintenance of plant breeding and the restoration of plant breeding system and the establishment of breeding stations. In the areas of dissemination of new technologies, food safety, veterinary and plant protection risk assessment, development of bio-methods, promotion of organic farming and extension of persons employed in agriculture.

LEPL SCIENTIFIC-RESEARCH CENTER OF AGRICULTURE

INFRASTRUCTURE

The Scientific-Research Center of Agriculture has well-equipped agricultural bases, state-of-the-art agricultural bases, modern laboratories and test-demonstration plots under state ownership and management rights:

- Research-demonstration base of perennial (vine, fruit, agro-forestry) crops (village Jigaura, Mtskheta municipality).
- 2 laboratories for integrated plant protection (village Jigaura, Mtskheta municipality and village Anaseuli, Ozurgeti municipality).
- Plant Virus Research ELIZA and RT PCR Laboratory (village Jigaura, Mtskheta Municipality).
- Research-demonstration base of annual crops (cereals, legumes, vegetables, horticulture, technical) (Tsilkani village, Mtskheta municipality).
- Seed quality laboratory (village Tsilkani, Mtskheta municipality).
- Analytical Research Laboratory Named After Ivane Sarishvili (village Tsilkani, Mtskheta Municipality).
- Laboratory of Soil Fertility Research Service (in vitro) propagation of plants and virus-free planting material (village Tsilkani, Mtskheta municipality).
- Livestock breeding, breeding-research station (village Grantiid, Dmanisi municipality).
- Experimental-demonstration research farm for domestic animals and birds (Krtsanisi, Gardabani municipality).
- Beekeeping breeding station (village Mukhuri, Chkhorotsku municipality).



DNM laboratory



In Vitro Laboratory



Seed quality Laboratory

- Greenhouse complex, 6 large and 27 small solar system greenhouses (village Shulaveri, Marneuli municipality).
- Selection variety test demonstration plots in 24 municipalities of Georgia.
- "Wine Laboratory Ltd" - with the right of management (Tbilisi).
- Soil and Food Diagnostic Center named after Adam Beridze Ltd - with the right of management (village Anaseuli, Ozurgeti Municipality).



Mulberry silk breeding laboratory



Ltd Wine laboratory



Beekeeping breeding station



Shulaveri greenhouse complex



**Jigaura research and experimental base of
fruit collection**



**Jigaura research and experimental base of
vine collection**

IN 2020, THE AGRICULTURAL RESEARCH CENTER CARRIED OUT ACTIVITIES IN THE FOLLOWING MAIN AREAS: SCIENTIFIC SUPPORT FOR THE DEVELOPMENT OF THE AGRARIAN SECTOR, CONSERVATION OF PLANT AND ANIMAL AGRO-BIODIVERSITY, RESEARCH, AND INTRODUCTION OF MODERN TECHNOLOGIES:

MAINTENANCE OF THE GENE POOL OF VEGETABLES AND HORTICULTURAL CROPS, CULTIVATION, MAINTENANCE DEVELOPMENT OF INNOVATIVE TECHNOLOGIES OF BIO-AGRICULTURE:

- To determine the agricultural characteristics and further study, studies on annual plants (Cicars, lentils, Broad bean, Lathyrus) are continued.
- Phenological observations were made on different phases of beans. Improvement of biological-agricultural characteristics of three varieties of beans M2, M3 has been identified; 108 samples of M3 generation beans were obtained for study in future generations.
- Restoration of local varieties of vegetables and horticultural crops - for improvement, protection and storage in the open and closed ground, studies were conducted on vegetables and horticultural crops: on local forms of tomato - 21, cucumber - 2, pepper - 2, eggplant - 1, watermelon - 1, pumpkin - 1, melon - 1 and marrow - 1;
- Out of 9 forms studied in the onion control nursery, 6 forms are distinguished (2 imported, 4 local) and one local perspective form of onion "Red 54".
- 7 forms were distinguished from the selective garlic nursery, and 10 forms from the garlic collection nursery; 5 promising forms of garlic are described according to UPOV descriptors.
- Work is underway to renew varieties: 2-2 local, restored varieties of onions and garlic.
- 2 forms of broccoli and 2 types of cauliflower were distinguished from the collection nursery.
- To research the crops of legumes, Solanaceae and pumpkin families and to produce primary seedlings, the search for crops, restoration-conservation continues.
- A tobacco demonstration plot was set up for technical crops research and primary sowing; New, introduced varieties of Flaxes have been studied.
- To propagate elite seed material, study its high economic properties and identify distinctive forms, various forms of potato crop are



being tested in Akhalkalaki, Marneuli, Tsilkani, Kazbegi, Lentekhi and Akhaltsikhe.

- The agricultural characteristics of 1 variety of Garden asparagus (*Argenteuil*) have been studied.
- 32 bio-preparations of local and foreign production were tested on different annual crops; The scheme of their use and economic efficiency have been developed

IMPROVING AGRO-TECHNOLOGIES OF PERENNIAL CROPS AND MAINTAINING THE GENE POOL:

- Expeditions (Kakheti, Shida Kartli, Kvemo Kartli, Samtskhe-Javakheti, Mtskheta-Javakheti, Mtskheta-Mtianeti) were carried out in the regions of Georgia in order to find and multiply local varieties of fruits (apple, pear, peach, tkemali, quince); As a result of the expeditions, about 30 local varieties of fruit trees were taken for grafting, 10 forms of sour plum were grafted;
- The collection of local fruit varieties has been enriched with more than 50 new forms.
- Agricultural-biological characteristics of 70 varieties of 13 fruit crops (apples, pears, cherries, plums, apricots, peaches, fennel, persimmon, almonds, walnuts, hazelnuts, mini kiwi, goji berry) have been studied.
- 629 plants were grafted in the collection for the conservation of the gene pool of local fruit varieties.
- In 7 regions of Georgia, fruit crop collections were described and yields were determined: Samtskhe-Javakheti (Adigeni - Bolajuri), Samegrelo (Chkhorotsku - Lesichine), Imereti (Samtredia - Didi Jikhaishi), Shida Kartli (Khashuri), Guria, Ozurgeti) Lechkhumi (Tsageri - Aghvi);
- Collected gardens of three new introduced varieties of Pistacia (1. UCB - 1, 2. Turkish P. Vera; 3. Pistachio multivar (Atlantica)), each with 15 pieces.
- A new agricultural, experimental plot with 50 plants was planted using UFO technology.
- 32 trainings with relevant testing were conducted for the beneficiaries of the state project "Plant the Future".



FINDING AND CONSERVING THE LOCAL GENE POOL OF CEREALS, ADAPTING TO SOIL-CLIMATIC CONDITIONS, STUDYING BIOCHEMICAL AND COMMERCIAL INDICATORS, TESTING VARIETIES:

- To diversify the genetic resources of wheat, endemic wheat varieties and aboriginal varieties in the number of 40 have been found and transferred for protection to the Gen-Bank.
- Out of 404 genotypes of four nurseries of autumn and facultative wheat studied, 34 prospective forms are distinguished for further studies.
- Basic seed material of species and varieties included in the national catalog (Makha, Celta Zanduri, Shavpkha, Tetri Dika, Akhaltsikhe Red Doli) was obtained from the primary sowing nursery.
- Improved crop care technology was developed using fertilizers and growth regulators to increase yields.
- To obtain new varieties, on the test plot of selective varieties arranged in different agro-climatic zones, 9 promising forms distinguished from international wheat nurseries are being studied together with the control variety.
- To corn selection and primary seed-growing, high-yielding, early and late, grain, food, canning and food directions, quality products, hybrids, and varieties suitable for cultivation, immune to intensive and harmful diseases were selected.
- Two maize hybrids were prepared for registration.
- 17 numbers of hybrids have been studied.
- 32 numbers were tested in the control variety test, 227 numbers in the collection and line nurseries.
- According to the primary seed-growing of the native lines of hybrid varieties, a selective nursery of corn varieties and lines and a seed nursery of the native lines were arranged.



SUPPORTING THE DEVELOPMENT OF SEED AND PLANTING MATERIAL PRODUCTION:

- Within the framework of the program of agro-biodiversity and endemic conservation, the genetic bank was enriched with 300 new samples of wheat crop, corn crop - 45, bean crop - 30.
- According to the methodology of the International Union for Conservation of New Varieties (UPOV) wheat - 1 and beans - 8 local varieties are described.
- The national catalog of agricultural crops allowed for distribution includes 6 local wheat, 8 introduced wheat and 12 local vines.
- Continues to search, identify traditional varieties left in Georgia, characterize them according to the technical characteristics of UPOV and CPVO and enter them in the national catalog of varieties allowed for distribution.
- Original samples of traditional corn varieties are stored in the seed bank.
- Draft regulations for labeling seeds and planting material of agricultural crops were prepared.
- 36 field inspections were carried out on wheat and potato seed plots.
- 570.35 tons of seed material is certified.
- Certified - 389.35 ha sown area.
- Certificate of quality of seed and planting material has been issued: wheat - 30, hazelnuts - 3, potatoes - 3 - certificate.
- During the study of the samples taken from the seed batches, their correspondence with the seed quality indicators was established.
- As part of the process of introducing voluntary certification of planting material, 27 nursery activities were studied. 9 nurseries were granted the status of qualified nurseries, 18 farms were given instructions to eliminate non-compliance; • Seed Quality Laboratory has been accredited in accordance with SST-ISO-EEC 17025 - 2017/2018.
- Logs for planting material traceability and registration of agro-technological and phytosanitary works carried out in the nursery were created and processed.
- 235 laboratory analyzes were conducted to systematize seed and planting material certification.
- Improving the register of planting and seed material producers continues.
- A long-term collection of plant genetic resources has been established



RESEARCH ON INTEGRATED PLANT PROTECTION SYSTEMS:

- For the first time in Georgia, the laboratory method of modern immunoenzymatically analysis (ELISA-test) identified 2 viral diseases of hazelnuts and 7 vines.
- Laboratory and chain polymerase (RT PCR) method of immunoenzymatically analysis (ELISA) identified 2 phytoplasma diseases in 4 vine varieties.
- 180 plants of 30 varieties were examined for viral disease and 103 virus-free plants were identified.
- 14 varieties of vines relatively resistant to viral diseases and 8 varieties resistant to the virus were identified.
- To identify healthy, virus-free plants and to produce planting material from them in the future, a study of 8 viruses provided by the EPPO standards was carried out on 30 Georgian varieties of vine collection and mother vineyards for viral infection. A total of 180 samples / plants were examined.
- In the framework of the project „Enhancing Rural Livelihoods in Georgia: Introducing Integrated Seed Health Approaches to Local Potato Seed Systems“, plants with symptoms of potato viral diseases were examined. A total of 110 potato samples were examined.
- Regular phytosanitary monitoring in Guria and Samegrelo regions to identify and control the prevalence of Brown marmorated stink (*Halyomorpha halys*) and other hazelnut pests in the Guria and Samegrelo regions.
- Major fungal diseases of walnut crops have been studied.
- To study the resistance of mass-spreading pests to chemicals, including brown marmorated stink, systematically used insecticides were identified based on routine studies on hazelnut plantations and corn crops in various villages of the Samegrelo region.
- Susceptibility of different populations of brown marmorated stink to bifenthrin-containing drug was determined.
- To register a drug used against brown marmorated stink, a new Austrian insecticide was studied, and registration documents were processed.
- Phenocalendaric schemes of pest and weed control measures in agricultural crops (grain crops, cucumbers, tomatoes, potatoes, citrus, vines, fruit trees) were clarified and handed over to farmers.
- To determine the biological effectiveness, a field test of the drug “Shield” (aqueous solution of ammonia) against Italian locust was conducted on the Kamer pastures near the village of Udabno in Sagarejo Municipality.



- To study the technologies used against weeds in the hazelnut agro-ecosystem, based on the monitoring conducted in Guria and Samegrelo regions, the whole range of weeds was identified and an alternative biological method of controlling them was developed.
- To improve the integrated system of protection against invasive and other pests of vines, a rare disease - acid rot of vines has been identified, new, effective insecticides have been studied to fight against it.
- Based on the results of the pesticide test against pests and diseases in the vineyard, changes were made to the scheme of vine Phenocalendaric medicines.

INCREASE RISK ASSESSMENT CAPABILITIES:

- Developed and submitted to the Parliamentary Committee for consideration the project "National Dietary and Nutritional Survey in Georgia: The First Step to Increase the Capacity for Quantitative Assessment of Food Risks “.
- According to the "One Health" policy, scientific papers have been submitted to international competitions and the World Congress:
- "Positive correlation between the concentrations of Escherichia coli and coliforms in drinking water samples taken in different regions of Georgia “.
- "Intraspecific recombination as an additional mechanism for the evolution of Brucella Abortus populations “.
- "Intraspecific recombination of CmeABC operon and gyrA locus as a risk-based pathway based on resistance to fluoroquinolones in Campylobacter jejuni natural populations “.
- "Antimicrobial resistance genes in Mtsvane Kontskhi and Batumi coastal recreational waters in Georgia: conclusions from metagenomic analyzes".
- In 2020, a scientific paper was published in the international scientific journal "Food and Environmental Virology" to assess the emerging risks of food safety. The paper "Horizontal Gene Transfer of Vibrio Bacteriophages" was presented at the 25th International Bioinformatics Workshop on Virus Evolution and Molecular Epidemiology in Rio de Janeiro, Brazil.
- An international working meeting was held on the challenges of risk assessment, in parallel with scientific research on risk assessment, with the support of the European Food Safety Authority (EFSA).
- Through close communication with the Center's partner organizations, materials and recommendations were developed and prepared to ensure the effective management of COVID-19 pandemic emergencies in Georgia. Scientific opinions and recommendations were prepared for the purpose of improving the procedures for initiating food safety, veterinary and phytosanitary risk assessment procedures in Georgia.
- Trainings, conferences:
- Participate in the work of veterinary and phytosanitary risk assessment target groups.
- “Hands on” Intensive practical trainings in bioinformatics on DNA and genome analysis.

- Training in the field of "One Health" organized by EFSA and the National Institute of Public Health of the Czech Republic.
- RAGUSA SHWA-2020 organized by health organizations in Sweden, USA, and Italy.
- Workshop organized within TAIEX on the development of food consumption data.
- Intensive training on food safety risk assessment (duration 6 months) organized by the US Department of Agriculture.

STUDY OF THE GEORGIAN LAND FUND AND RESTORATION-IMPROVEMENT OF SOIL FERTILITY:

- In the framework of a joint grant project with the German Society for International Cooperation (GIZ) "Study of soils under forest cover and determination of organic carbon reserves in it":
- Prof. Ivane Sarishvili Soil Research Laboratory received laboratory equipment worth 113 thousand GEL from GIZ as technical assistance.
- Field and laboratory studies were conducted. More than 700 soil samples were taken and examined.
- Two field specialists were trained by Georgian and German specialists to improve their qualifications.
- To study the general condition of the soils, the soil area of 20 thousand hectares has been surveyed, 176 soil samples have been taken and studied in laboratory conditions.
- Maps of organic carbon stocks and nutrients in the soil (6 maps).
- To determine the physical, physico-chemical, and chemical characteristics of the soil, field and laboratory research of the soil was carried out, 152 soil samples were studied.
- 5 recommendations on improving soil fertility were prepared.
- Field and laboratory research of the soil was conducted within the framework of the joint research based on the Memorandum of Understanding signed between the partner organizations, a total of 202 samples were studied; Based on the received data, the electronic soil database was updated;
- Prof. Ivane Sarishvili Soil Research Laboratory has been participating in the International Laboratory Professional Testing Program - WEPAL since 2020, within which the laboratory has received and successfully conducted research on 16 soil samples.



- The laboratory won the competition announced by the Food and Agriculture Organization of the United Nations (FAO). As a result, the FAO transfers laboratory furniture, which will help increase the efficiency of laboratory work.
- The Soil Research Laboratory became a member of the International Network on Fertilizers Analysis (INFA) established by FAO.
- Participated in 10 FAO-led trainings.

RESTORATION-IMPROVEMENT OF LOCAL SPECIES AND POPULATIONS OF DOMESTIC ANIMALS, BIRDS, FISH, AND AGRICULTURAL-BENEFICIAL INSECTS COMMON IN GEORGIA AND CREATION OF A GENETIC BANK:

- Work continues to improve and further improve the breeding and productive qualities of local and introduced varieties, considering the management of breeding-selection activities.
- Productivity of endangered Georgian mountain cows and Caucasian chestnuts, milk chemical composition and other agricultural indicators are studied.
- To create breeding nuclei, the search for / study of local breeds and populations of cattle continues.
- To study, restore and protect the endangered Megrelian red cattle, 2 typical farms have been found on the winter pastures of Paliastomi for future cooperation.
- To promote the development of intensive pig breeding, young animal of modern breeds is being handed over to farmers.
- In the framework of the study, breeding-selection program of the endangered Kakhetian pig in Georgia, the process of finding, identifying typical individuals and forming a test-demonstration colt has been completed.
- Reproduction and selection work of Kakhetian pig colt are underway: evaluation of test animals, selection, rejection, and replenishment of the mother team, pairing of sows on the principle of individual selection.
- Cooperation with Georgian-Spanish company "Georgian Native" continues in the direction of selection works for the establishment of Kakhetian pig breeders.
- Expeditionary works are underway to find Svan pigs and typical individuals.
- Ongoing research to study the productivity of introduced varieties.
- In the experimental farm of Krtsanisi forest-park, a selective colt of Kakhetian pigs with 146 pigs (10 hogs, 28 sows, 108 sucking pigs)



was established.

- 310 are sold through auction. Kakhetian - 258, introduced - 47 pigs.
- The study of efficiency indicators of high-yielding breeds of cows (Holstein and Swiss) continues (study of productivity, reproduction, diseases, feed, etc.) (Akhmeta Municipality).
- For livestock breeding and selection activities, at the bases of the center, work continues on creating a breeding core of local varieties of Tushuri and Imereti sheep, mountain cows, Megrelian goats, cream-colored turkeys, mottled and Javakhetian ducks, Javakhetian geese and pheasants.
- Continuation of restoring the standard of semi-soft-skinned fat-tailed, soft-skinned-fat-tailed, Imeretian, Tush sheep and Megrelian goat breeds and creating a genetic bank.
- The local chicken collection team was staffed by the fourth generation of 5 populations, with 50-50 chickens in each population, for a total of 250 chickens. 3 families of Ring-necked Pheasant with 12 pheasants.
- Local poultry productivity indicators are studied: egg intensity; Egg incubation rates; growth dynamics and retention rates.
- For the purpose of local carp breeding and bio-pond creation, a bio-pond model was created with a wild Paravani and Rioni carp breeding team, a total of 57; The first generation of Najvari has been studied according to its characteristics and biomass;
- Work is underway to study the carp genome using bioinformatics methods.
- To identify Georgian bee populations (Megrelian, Gurian, Kartli) and to promote the development of breeding, a study of bee economic indicators was carried out.
- At present, the number of pure-bred bee families of the Megrelian population is 60.
- The best 30 families were selected for the beekeeping nucleus, considering the useful properties.
- Mother bees are bred from highly productive families, their selection is strictly selected and checked for the quality of the offspring through individual selection.
- Autumn census of bee families was conducted, and bee diseases were monitored.
- To study honey plants and increase honey productivity, long-flowering, anti-erosion honey plants (42 plants) were planted at the Lesichine test base (Chkhorotsku Municipality) in Samegrelo.



- To study the food base, works have started and are continuing in Guria and Samegrelo regions.
- To maintain and improve the geno-fund of mulberry silkworm, pure grain of the mulberry silkworm geno-fund was produced in the amount of 4000 sediments.
- Blood was updated on 2 colored varieties, resulting in different color combinations.
- A hybrid grain in the amount of 200 g was made.
- Anti-brucellosis measures were taken to prevent and improve measures against some infectious and invasive diseases of agricultural animals, 541 cattle (villages of Mtianeti-Pshav-Khevsureti) were examined.
- The prevalence of helminthic diseases in cattle (including buffaloes), small cattle (sheep and goats), pigs (crossbreeds, Kakhetian and Svan breeds), horses has been studied.
- In 29 villages of 59 municipalities of Georgia, 2990 cattle fed on pasture were examined, recommendations were issued.
- To create a livestock food base, to develop measures for the improvement of natural pastures and pastures, autumn wheat, spring barley, grain corn, alfalfa was sown

PRESERVATION OF GEORGIAN VINE GENE POOL, STUDY OF GEORGIAN AND INTRODUCED VARIETIES AND EVALUATION OF OENOLOGICAL POTENTIAL:



- Jigaura's Solomon Cholokashvili Vine Collection (GEO038) continues to describe and evaluate vine varieties according to OIV descriptors.
- An illustrated catalog of studied vine varieties was published - the first part.
- To study the specific micro-zones of viticulture, the study of perspective micro-zones continues, to determine the geographical area for their production.
- Perspective by regions, less common at this time, vine varieties were identified: 4 for Samegrelo, 5 for Adjara-Guria, 7 for Imereti, 4 for Racha-Lechkhumi, 5 for Kartli and Meskheta and 6 for Kakheti.
- The studied species will be recommended for propagation in their area of origin or micro zone.
- Based on the study of the morphological and production properties of the newly separated strains of Georgian wine yeast, 4

promising strains of pure yeast culture for wine making are distinguished.

- To identify promising wine varieties, 139 Georgian autochthonous grape varieties were studied according to their organophilic coefficient, physico-chemical parameters of grape sweet, organoleptic characteristics based on vinification methods.
- Based on the tastings, the main aromas characteristic of varietal wines and their intensity were determined.

STUDY OF MODERN TECHNOLOGIES OF STORAGE AND PROCESSING OF AGRICULTURAL PRODUCTS:

- A new and pre-designed research method of raw fruit storage of prospective varieties of fruits, vegetables, fruit fruits and table grapes are obtained.
- Several biochemical parameters of grape - 6, peach and nectarine - 2-2 and sweet cherry - 3 varieties and changes in the storage process have been studied.
- To study the development of energy-saving technology for the expansion of the range of natural, non-alcoholic, and low-alcohol beverages and vinegar and extracts, a principle scheme of a new concentrating experimental device was developed.
- To further study, basic natural juices of grapes (Rkatsiteli) and apples (sparkling, cider) were prepared.
- Samples of low-alcohol beverages (2 assortments in total) and vinegar, including aromatic vinegar (7 assortments in total) were prepared using low-condition raw materials (apples, pears, minikiv, pomegranate); The main physico-chemical and organoleptic parameters were determined.
- To develop the technology of drying perspective fruits and berries, 3 varieties of plum, 4 cherries and 2 varieties of goji berry were studied.
- To develop technological instructions for Georgian traditional dairy products ("Dambalkhacho", cheese "Tenili", cheese "Guda", their organoleptic indicators were studied, considering the technological scheme containing the principles of safety.
- Within the framework of the state programs "State Program for Support of Dairy Agricultural Cooperatives" and "State Program for Modernization of the Dairy Sector and Market Access" 44 expert opinions have been made and up to 150 online consultations have been conducted

RESEARCH OF MODERN MACHINE TECHNOLOGIES FOR AGRICULTURAL PRODUCTION:

- Technological schemes of special tractor, combined unit, and other machines for working in tea plantations were developed, based on which test samples were made.
- To perform various operations in high-yield crops (cotton, tobacco, tea, etc.), the technical characteristics of the tractor created by the Belarusian agricultural machinery manufacturer "BLUMING" were developed.
- To economic evaluation of wheat production machine technologies, a machine-technological adapter for wheat production based on research has been developed; Wheat base - advantages of production on studies were identified.
- In cooperation with the Food Safety Agency, plant protection machinery was monitored the working solution of the spraying equipment and the consumption of fuel during the anti-Pharosana poisoning process.



CONSERVATION OF VIRUS-FREE SEED AND PLANTING MATERIAL AND CONSERVATION OF VARIETIES:

- Massive in vitro propagation of 3 local and 10 introduced potato varieties in tissue culture was carried out.
- A selective study identified 40 new, high-yielding drought- and disease-resistant CIP clones for its further massive micro clonal multiplication.



- In vitro propagation of relatively new, medicinal, berry goji berry varieties (*Lyceum barbarum* - orange; *Lyceum Chinese* - red goji; *Lyceum Ruthenium* - black goji) and batata.
- Vine varieties were introduced into in vitro culture and propagated in vitro.
- To restoration-protection of rare varieties of Georgian vines and in vitro conservation of the geno fund, an effective technology of in vitro propagation of Georgian vines, a less common, promising wine variety, is being developed / refined.
- 30 varieties of Georgian vines were selected for micropropagation of rare vine varieties, sterilization methods and relevant food areas were developed.
- To preserve agro-biodiversity and endemics, 10-20 specimen plants of research crops and varieties are kept in the in vitro gene bank: potato, vine, goji berry, batata (sweet potato).
- Trial works were carried out in connection with the introduction of sterile tissues of tea, barambo and Valerian in vitro; The best food areas were selected for these crops.



STUDY OF GENETIC RESOURCES OF RARE FOREST SPECIES, STUDY OF AGROFORESTRY AND ARRANGEMENT OF BIO-LANDSCAPES:

- Inventory and assessment of habitat status of five rare and endangered woody species of the forest (Georgian maple - *Acer ibericum* M. Bieb, Georgian almond - *Amygdalus georgica* Desf., Imereti oak - *Quercus Imeretian* St, bare Teladuma - *Ulmus glabra* Huds and small florets) were held.
- A database was prepared on four rare forest species (*Acer ibericum*, *Amygdalus georgica*, *Quercus Imeretian*, *Ulmus glabra*) and maps reflecting their distribution in the GIS program were developed.
- Molecular-genetic research was conducted on samples of Georgian maple, bare thallium and Imereti oak leaves.
- Expeditions were carried out in Racha region to determine the locations of oak and bare Teladuma; Species were inventoried for each species and location; Inventory was conducted at 58 locations of all 5 species.
- In order to determine the similarities and differences between the populations, up to 1000 samples of Georgian maple and Imereti oak leaves were subjected to molecular-genetic and morphometric research, which will be placed according to the scheme of the European Forest Genetic Resources Program (EUFORGEN);

- 7 new species (Mtskheta-jigaura) were added to the collection plantations of 86 species of forest woody plants.
- 10 samples of 5 species were prepared for the ex situ Geno-bank of rare forest species.
- In order to study new fast-growing forms of Cottonwood in Eastern Georgia and to identify adapted variants, to develop an agro-technological scheme and for future use, research is underway on 25 new forms of Cottonwood imported from scientific research centers in Italy and Turkey;
- A nursery of fast-growing Cottonwood forms was planted; 6 potentially best forms of Cottonwood were distinguished.
- As a result of phenological observations of plants for the study of resistant varieties and forms of mulberry, 4 early and 3 late forms of mulberry were revealed



- 10 different varieties and 30 forms of mulberry plant collection plot was planted.
- Biochemical and physiological parameters of mulberry forms were determined in laboratory conditions and resistance markers were identified.
- To produce mulberry seeds, determine their germination capacity and obtain further hybrid material, mulberry seeds were extracted, and its qualitative indicators were studied.
- New technology for growing mulberry seedlings was developed and a new laboratory-efficient and economical method of obtaining mulberry planting material; A new technology for obtaining mulberry virus planting material has also been developed.
- Phenological observations of plants for the spread of mulberry in the regions revealed 8 early and 5 late forms of mulberry.

COLLECTION, STUDY, AND DEVELOPMENT OF BREEDING TECHNOLOGY FOR GENETIC RESOURCES OF PROMISING FORMS OF TEA AND SUBTROPICAL CROPS:

- A pilot project was developed to create a processing plant for tea and other subtropical raw materials.
- More than 30 hectares of wild tea plantations have been studied, soil samples have been taken. The content of nutrients was determined, based on which rehabilitation technological plans were prepared.
- Tea plots rehabilitated in recent years were monitored.
- Observations on 8 promising forms of citrus fruits (mandarin, lemon, orange) grown on the Anaseuli collection plot, as well as the perspective of Actinidia, feijoa, hazelnut, laurel, bay cherry, tea, blueberry, stevia, raspberry, blackberry.
- Areas suitable for growing blueberries in different regions of Georgia have been studied, chemical analysis of soil samples has been conducted.
- Eligibility certificates were issued to more than 100 beneficiaries for the cultivation of blueberries on state funding.
- Scientific observations were made on blueberry experimental varieties planted in 3 locations in western Georgia.
- 1500 standard tea seedlings were obtained from rooted cuttings.
- Tea collection plot was planted: tea variety "Kolkhida" propagated vegetatively, "Kolkhida" propagated by seeds and "Kimini" - propagated by seeds (0.1 ha).
- 10 beneficiaries have been studied and recommendations have been issued within the program „Georgian Tea Rehabilitation “; Also examined and final findings prepared on up to 50 ha of rehabilitated plantation.



IDENTIFY GEORGIAN VINE VARIETIES USING DNA MARKERS AND CREATE A GENETIC DATABASE:

- DNA extraction was performed in laboratory conditions from 40 varieties of Georgian vines, 10 varieties of hazelnuts and 4 varieties of apples.
- Extraction materials of 25 Georgian vine varieties were taken for further DNA extraction.
- 230 samples of PCR products from different vine varieties and 9 wild vines were sent to the Agricultural Laboratory for further research.
- 165 samples of DNA PCR products were analyzed.
- 9 pairs of vines were obtained through DNA markers with complete data from 13 Georgian and 3 foreign vine varieties, as well as 5 wild forms of vines



ACCESS TO MODERN TECHNOLOGIES IN THE FIELD OF AGRICULTURE AND RAISING THE KNOWLEDGE OF EMPLOYEES IN THE FIELD - CONSULTING:

- Up to 150 thematic trainings and 38 lectures-seminars have been held.
- 6763 farmers have been trained



PUBLISHED:

- Manual (book) - 11.
- Article - 103.
- Recommendation - up to 70.
- Brochure-7.



საქართველოს ატომური ენერჯის უსაფრთხოების აგენცია



NUCLEAR AND RADIATION SAFETY AGENCY

In 2020, the Nuclear and Radiation Safety Agency and the International Atomic Energy Agency signed the Georgia Framework Program for 2020-2025. The Framework Program is the basis for the medium-term planning and implementation of cooperation activities with the State ANRS, which identifies the priority areas for which Georgia will receive approximately € 10 million worth of nuclear technology and other technical cooperation resources.

NUCLEAR AND RADIATION SAFETY AGENCY

In 2020, the Agency for Nuclear and Radiation Safety, within the framework of the project of the Scientific-Technical Center of Ukraine, supported by the European Union, received a mobile laboratory worth 1 000 000 euros, which can be used to conduct radiation monitoring of the environment.

In 2020, the Nuclear and Radiological Emergency Response Center was established to provide rapid decision-making for nuclear and radiological emergencies and to take effective appropriate measures to prevent and / or reduce damage.

In 2020, a special space was set up in the vicinity of the radioactive waste repository to place modern standard radioactive sources in containers to increase safety measures.

In September 2020, the agency specialists, the primary remediation of the radiation-contaminated area of the former Institute of Tea and Subtropical Plant Studies in the village of Anaseuli. Based on this measure, it became safer for the local population to move around the area.

As part of the monitoring of licensed organizations, 62 inspections were conducted in 2020. 96 medical institutions were inspected. Relevant recommendations were issued for the identified violations, in addition to the relevant sanction provided by law.

It was carried out by the specialists of the agency. Radiological monitoring of tunnels, stations, and auxiliary areas of the Tbilisi Metro, because of which it was determined that the radiation background in the territory of the metro is safe for the population.

The Nuclear and Radiation Safety Agency, together with the patrol police and other competent agencies, is involved in controlling nuclear and radiation safety at the border.

In 2020, as a preventive measure, the Agency developed booklets in the field of nuclear and radiation safety in various areas, intended for the population, as well as for organizations and agencies whose activities are related to nuclear materials and / or radioactive sources.

It should be noted that today, in terms of radiation safety in the country, the population is fully protected.

MINISTRY OF ENVIRONMENT PROTECTION AND AGRICULTURE



DEPARTMENT OF AGRICULTURE, FOOD AND RURAL DEVELOPMENT

The main functions of the Department of Agriculture, Food and Rural Development of the Ministry of Environment Protection and Agriculture are to determine the priority directions for the development of the agrarian sector, to develop programs for the development of livestock, vegetation and fisheries, modern agricultural

- Facilitate the introduction and use of agricultural machinery and technologies, develop and participate in rural development policy, develop / participate in food safety, veterinary and plant protection policies in the country and prepare draft normative acts to improve the relevant regulatory legal framework. Accordingly:

- In the field of food safety, veterinary and plant protection, within the framework of the DCFTA, in accordance with the list of legislative approximations, 26 draft normative acts were developed in accordance with 26 EU legal acts and one guideline;
- In order to adapt to the modern requirements of organic production in the country, a draft technical regulation was prepared - “Rules of Organic Production and Labeling of Organic Product”, which sets out the principles of organic production, establishes organic production, certification, labeling and advertising Additional rules related to the implementation of product control. The project was prepared in accordance with the new EU Regulation-REGULATION (EU) 2018/848 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 on organic production and labeling of organic products and repealing Council Regulation (EC) No 834/2007;
- In the field of food safety, veterinary and plant protection, within the framework of the DCFTA, in accordance with the list of legislative approximations, 19 draft normative acts have been developed in accordance with 26 EU legal acts and one guideline;
- In order to adapt to the modern requirements of organic production in the country, a draft technical regulation was prepared - “Rules of Organic Production and Organic Product Labeling”, which defines the principles of organic production, sets the rules for organic production, certification, labeling and advertising. Additional rules related to implementation. The project was prepared in accordance with the new EU Regulation-REGULATION (EU) 2018/848 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2018 on organic production and labeling of organic products and repealing Council Regulation (EC) No 834/2007;
- Development of food quality schemes in Georgia, promotion of product branding, introduction of international marketing practices, improvement of legal and institutional mechanisms for their protection, promotion of quality food and increasing consumer confidence in food produced in Georgia;
- Specifications of Qvevri were prepared, and, accordingly, the Georgian National Center for Intellectual Property - Sakpatenti was asked to register a geographical indication, these specifications and reputation were published by Sakpatenti in a special issue of the Official Bulletin of Industrial Property (2020/12/08);
- Information on the situation in the country in the fields of animal husbandry, horticulture and fisheries was processed, economic assessments of technological processes were carried out and appropriate recommendations were prepared based on it; Also, an analytical document in the field of sectors was prepared for the development of state targeted programs;
- Appropriate information and proposals were developed and proposals were made for agricultural crop storage and refrigeration infrastructure, greenhouses, processing enterprises, modern technological lines and technologies;
- Response and preparation of response / confirmation letters to the information provided by the state-owned lease / purchase

agreement and submitted to the Ministry (more than about 1000 pages), as well as submission / analysis of the submitted information / documentation in the electronic database;

- The third modernized version of the potato pick-up truck, developed with the specialists of the company Gomselmash, was prepared and a field test was conducted during the potato picking season;
- Based on the study of the current state of agricultural machinery in the country, in order to increase access to the machinery, appropriate recommendations and proposals were developed;
- Department staff took an active part in the development of the state target program framework / analytical documents;
- Department staff participated in a working group set up to organize peach and non-standard apple production promotion activities in 2020.
- Operational information was obtained and processed on drying plants for dried fruit and dried fruit production in order to develop the production process and study the potential;
- Relevant consultations were provided to those interested in the agricultural sector (both local and foreign).
- Department staff participated in working groups set up by the Ministries of Environment and Agriculture, as well as other ministries by sector.
- In order to protect Georgian bees, recommendations were developed to improve the legal framework;
- Machinery and machine system for potato production was developed, about which in October 2020 In Akhalkalaki Municipality, the staff of the Department organized a training-demonstration of farmers on the basis of the Agricultural Logistics and Services Company Ltd. in the village of Vachiani, information brochures and booklets were printed and distributed to farmers and interested persons;
- The current state and development prospects of the production of essential oil crops and essential oils were studied;
- Substantiation of the recommendation on the component of “simple type of agricultural machinery and aggregates on-site production and repair” was prepared;
- To alleviate the effects of the Covid-19 pandemic, department staff participated in meetings and kept in touch with a variety of people involved in the agricultural product chain: distributors, importers, slaughterhouse managers, helping them to make time for minors and farmers. There was no delay in the implementation of their activities.
- The Department was actively involved in the process of bringing in visitors whose arrival was an urgent need for the smooth running of agricultural production.
- Under the coordination of the Department, the relevant sectoral economic entities were issued travel permits / permits to critically necessary employees during the curfew;
- Work has started and continues on the program - “Improving the sustainability of rural areas based on the development of farm aquaculture”;
- Recommendations have been and continue to be developed in the following areas: - “Development of agrarian and ecological tourism”, “Ecological marking and marketing of ecological and regional products in rural areas”.

DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE

As of 2020, the Department of Environment and Climate Change was coordinating the development and implementation of state policies in the areas of water resources management, atmospheric air protection and climate change throughout Georgia. It also participated in and coordinated the implementation of multilateral environmental treaties and processes within the competence of the Ministry, the UN Sustainable Development Goals (SDGs) at the national level, and worked closely with relevant international organizations. The department consisted of 4 divisions: Climate Change Division, Water Division, Atmospheric Air Division and Sustainable Development Division.

Georgia is characterized by a high vulnerability to climate change, hence the policy of climate change - adapting to it and mitigating greenhouse gas emissions is an important direction.

The Fourth National Communication Report on the UN Framework Convention on Climate Change has been prepared

Georgia, a party to the United Nations Framework Convention on Climate Change (UNFCCC), regularly reports on climate change trends and developments through national notification.

The Fourth National Communication Document of Georgia consists of the following five parts: National Circumstances, Greenhouse Gas Inventory Report, Mitigation Policy, Vulnerability and Adaptation; Also information on the integration of economic, social and environmental aspects of climate change, bilateral agreements, research relevant to climate change, climate change policy documents and further needs.

An interagency government council on climate change has been set up

In 2020, the Interagency Government Council on Climate Change was established by Resolution # 54 of the Government of Georgia. The Council aims to promote the effective implementation of the objectives of the UN Framework Convention on Climate Change, as well as the Kyoto Protocol to the Convention and the Paris Agreement.

A national contribution document to the Paris Agreement has been prepared, as well as a 2030 Climate Change Strategy and a 2021-2023 Action Plan.

The Ministry of Environment and Agriculture of Georgia, in accordance with its commitment to the Paris Agreement on the UN Framework Convention on Climate Change, has prepared an updated NDC document aimed at reducing greenhouse gas emissions by Georgia.

The NDC also prepared Georgia's 2030 Climate Change Strategy and 2021-2023 Action Plan, which is a plan to implement the above commitment and includes activities in the following seven sectors: energy generation and transmission, transport, buildings, agriculture, waste, industry and forestry.

A public hearing on these documents was held on December 24, 2020, taking into account the requirements of the Aarhus Convention and the limitations imposed by the pandemic.

The documents were also reviewed and approved by the Interagency Council for Climate Change

Started preparing a long-term (2050) low-emission development strategy

In line with the UN Framework Convention on Climate Change and the obligations of the Association Agreement with the European Union, Georgia has begun to develop a long-term low-emission development vision document, which follows the Climate Change Strategy / Action Plan and includes a long-term vision for the same sectors.

In order to reduce the emission of greenhouse gases, technical re-equipment of the nitrogen plant was started

In cooperation with the German Federal Ministry of Environment, Nature Conservation and Nuclear Safety, the Ministry of Environment and Agriculture of Georgia and JSC Rustavi Nitrogen, a nitrogen-producing plant in Georgia is being equipped with nitrogen oxide absorbing technology for climate change. It should be noted that the German Federal Ministry of Environment, Nature Conservation and Nuclear Safety will finance 50% of the project cost.

The Green Climate Fund funded the project "Support to Forest Sector Reform to Reduce Greenhouse Gas Emissions as a Result of Forest Degradation in Georgia" with a \$ 38 million grant.

The project "Support to Forest Sector Reform to Reduce Greenhouse Gas Emissions as a Result of Forest Degradation in Georgia" was funded in 2020 by the Green Climate Fund with a \$ 38 million grant. The project will provide unprecedented financial and technical assistance to establish sustainable forest management in the country, introduce energy efficient and climate-friendly technologies, improve forest management and contribute to the well-being of local people, strengthen and improve forest and forest resource control, increase forest protection Utilization, forest monitoring and biodiversity protection. The project will guarantee the introduction and implementation of the new Forest Code in the target municipalities and a pilot project for sustainable forest management throughout the country.

Promoting the improvement of water resources in the country is an important direction in solving the problems in the field of water use and protection

A draft law on water resources management has been prepared in order to implement a unified state policy in the field of protection and use of water resources, to create a safe environment for human health and to ensure the protection and sustainable use of water resources in accordance with the principles of integrated management. Stakeholder involvement was ensured in the drafting process. The bill is in line with EU legislation.

In particular, the draft law addresses the requirements of the Association Agreement in accordance with the following EU directives: on the development of a framework for water consolidation activities, on flood risk assessment and management, on urban wastewater treatment, on the quality of water for human consumption, on agricultural use. On the protection of waters from contamination with nitrates.

The new legislation is based on the principles of integrated water resources management and will introduce river basin management based on the preparation and implementation of basin management plans

Significant measures have been taken to facilitate the planned water management reform, in particular working on a draft version of several draft management plans.

The basin management plan is an integrated management mechanism at the river basin level. In order to make a plan, it is important to have a good analysis of the situation in the river basin and, based on the analysis, in consultation with various stakeholders, identify such actions that will ensure the improvement of the environment in a particular river basin. Therefore, the task of the basin management plan is to address the water resources challenges that threaten the water bodies in the river basin, taking into account various social, economic and environmental factors.

The territory of Georgia is divided into 6 basin territorial units of rivers: Enguri-Rioni, Chorokhi-Adjaristskali, Bzifi-Kodori, Mtkvari, Alazani-lori and Khrami-Debeda. With the support of the EU-funded project - EU-Water Initiative Plus for Eastern Partnership Countries (EUWI +) - the initial working versions of the Basin Management Plans were prepared for the Khrami-Debeda, Alazani-lori and Chorokhi-Adjaristskali watersheds.

In order to avoid or reduce the potential negative impacts of the watershed management plan on the environment and human health, and to enhance the positive impacts, it is necessary to prepare a strategic environmental assessment of the plan. Significant work has been done in this regard as a strategic environmental assessment of the Alazani-lori Basin Management Plan project has been prepared.

Since the Basin Management Plan is a strategic document, each territorial unit plan must undergo a strategic environmental assessment (according to the Environmental Assessment Code, strategic documents prepared in separate sectors, including the water resources management sector) are subject to strategic environmental assessment). A strategic environmental assessment of the working version of the Alazani-lori Basin Management Plan was prepared under the EUWI + project. Also, within the framework of the project, at this stage, work is being done on the guidelines required for the preparation of the strategic environmental assessment of the basin management plans.

The involvement of an informed community is important in the process of water resources management. It is possible to inform the public to provide them with access to information and data related to water resources.

In order to further improve access, with the assistance of the European Union and the technical and financial support of the European Environment Agency (EEA), the Georgian Water Information System has been established and is in the final stages of development. The establishment of the system is an important step forward in facilitating the development of data-driven policies, the implementation of integrated water resources management and, most importantly, public access to water-related information. The Georgian Water Information System includes information on national water policies, legislation and other important issues, qualitative and quantitative data on water resources, and dynamic maps.

Due to the fact that the improvement of the ecological condition of the Black Sea environment and the promotion of the blue economy is a priority for Georgia, the draft National Marine Environment Strategy and Action Plan has been developed in accordance with the EU Maritime Strategy Framework Directive. The document was developed with the support of the European Union. The strategy and action plan document aims to improve the Black Sea environment.

The basis for the development of the strategy and action plan is the Association Agreement and the Law of Georgia on Maritime Space of Georgia. The law was amended in 2018, in particular, Article 56 was added to the paragraph on the National Black Sea Protection Strategy and Action Plan for Achieving Good Quality of the Marine Environment, coordinated by the Ministry of Environment and Agriculture.

Georgia is actively involved in water resources management processes within the framework of sustainable development. In particular, one of the objectives of the 6th goal is 6.5, which is related to the integrated management of water resources at all levels. The task has two indicators: one (6.5.1), which measures the degree of implementation of integrated water resources management, and the other (6.5.2), which assesses the cooperation on transboundary waters between bordering countries. Although these two indicators have not yet been nationalized by Georgia, the country participated in the baseline reports for 2017 and for 2020. It is noteworthy that in the reporting process for indicator 6.5.1, the involvement of various stakeholders from various government agencies, non-governmental organizations and international organizations was ensured. The consultation process for reporting with stakeholders was supported by the Global Water Partnership (GWP)

One of the most important environmental trends is the protection of the ambient air

In May 2020, amendments were made to the Law of Georgia on Atmospheric Air Protection, on the basis of which the air quality management in the country is transferred to European principles. In particular, the law provides for the following requirements:

One of the most important environmental trends is the protection of the ambient air

In May 2020, amendments were made to the Law of Georgia on Atmospheric Air Protection, on the basis of which the air quality management in the country is transferred to European principles. In particular, the law provides for the following requirements:

- For the purposes of air quality management and monitoring, the entire territory of Georgia will be divided into zones and agglomerations, which will ensure the implementation of specific measures to reduce pollution in each of them;
- Atmospheric air quality management plans and short-term action plans will be developed in the zones and agglomerations where the problem of pollution or the risk of the problem is identified;
- The air quality monitoring system will be expanded and improved in accordance with the European standards of monitoring established by law;
- Public access to information on ambient air quality and measures to improve will be further improved;

European standards for ambient air quality monitoring have been developed, on the basis of which the monitoring of ambient air quality in the country will be carried out in full compliance with European standards.

European standards for ambient air quality monitoring have been developed, on the basis of which the monitoring of ambient air quality in the country will be carried out in full compliance with European standards.

In order to increase sanctions on air pollution from industrial facilities and to introduce a new European system for emissions control, the Parliament of Georgia developed and adopted the relevant legislative changes. Legislative changes address the following issues:

- The Department of Environmental Supervision is empowered to restrict the activities of the enterprise in whole or in part, if its activities pose a significant threat to the environment or may endanger human life or health.

- In order to significantly improve the control and monitoring of emissions of harmful substances into the ambient air from industrial facilities, the specific activity entity will be obliged to conduct continuous self-monitoring of emissions from stationary sources of pollution.
- In order to prevent and reduce air pollution from the industrial sector, sanctions will be significantly increased for the absence or non-use of air-tightening systems, for exceeding the maximum amount of harmful substances emitted into the air, with environmental permitting / conditional restraint

Developed with the active involvement of stakeholders and approved by the Decree of the Government of Georgia N2059 of October 22, 2020, 2020-2022. Rustavi Atmospheric Air Quality Improvement Action Plan, which aims to Improving the air quality in Rustavi. The main goal of the action plan is to reduce air pollution from industrial facilities in the city with solid particles, which in terms of air pollution in the city. Is the main problem of Rustavi.

By the Decree of the Government of Georgia N1354 of July 24, 2020, the Interagency Commission for the Study of Atmospheric Air Quality Improvement was established and its statute was approved. The main purpose of the Commission is to develop various thematic state target programs to improve the air quality in the country and reduce the impact on human health and the environment, and to fulfill the obligations of ratification of the protocols of the Convention on Long-range Transboundary Air Pollution of 13 November 1979.

In order to improve the quality of gasoline, in cooperation with the Georgian Business Association, new parameters have been added to the quality standards of gasoline and all the components included in the relevant European directive have been identified at the national level, which will improve the combustion process in vehicles and reduce nitrogen dioxide and carbon dioxide. Also, in order to comply with the established norms of fuel quality, the relevant legislative changes have significantly increased the sanctions for violating these norms.

In order to reduce emissions of ammonia into the air, the Swedish Agency for International Development (USAID) project "Improving Air Quality Management Capacities in Georgia" has developed a recommendation document "Voluntary Code - Best Agricultural Practices for Ammonia Emissions", which is the main Offer internships in both livestock and plant breeding.

Within the framework of the EU project, an independent European expert in the field of air protection has developed an assessment document of the European integration process - Air Quality Outlook, which comprehensively assesses the main directions of air defense policy in Georgia, its compliance with EU policy and legislation.

Draft by-laws have been developed to reduce emissions of volatile organic compounds from gasoline storage and loading-unloading operations and the consumption of varnishes and paints. Also, the readiness of the gasoline distribution and paint sector to introduce new regulations was assessed. The by-laws are scheduled to be approved by 2021.

With the support of the Swedish International Development Agency, an atmospheric emission forecast report has been developed for the first time, which includes forecast data for 2020, 2025 and 2030. Inventory of emissions of harmful substances into the ambient air has also been qualitatively improved. As a result, the inventory report has become more comprehensive, covering emissions from 1990 to 2018. At the same time, the degree of inventory consistency and comparability has improved. As a result, in 2021, the country submitted for the first time under the Air Convention both a full inventory period report and an emissions forecast report.

A package of legislative changes has been prepared as part of the Institutional Strengthening Project to facilitate the implementation of the Montreal Protocol on Ozone Layers for the Protection of the Ozone Layer. In particular, requirements are set for their collection,

recovery, recycling and disposal. Internal discussions of the legislative package are underway and its submission to the Parliament of Georgia is planned for 2021.

Environmental protection is an important direction of sustainable development of the country

Within the competence of the Ministry, detailed information on the implementation of SDGs was prepared for the second consecutive report of the Georgian National Voluntary Review (VNR), which was submitted to the High Level Political Forum (HLFP) in July 2020 at the UN Headquarters.

Environmental protection is an important direction of the country's sustainable development. Detailed information on the implementation of the SDGs for the second report of the Georgian Voluntary National Review (VNR) was prepared within the competence of the Ministry, which was submitted to the High Level Political Forum (HLFP) at the UN Headquarters in July 2020.

The Department has implemented and coordinated the implementation of Georgia's commitments within the framework of international environmental agreements, processes and organizations. In particular:

- The 4-year national report of the United Nations Economic Commission for Europe (UNECE) on access to environmental information, public participation in decision-making and access to justice in this area (Aarhus Convention) has been prepared. The report is important for the development of human rights, environmental governance and environmental democracy, as well as the sustainable development agenda in terms of effective public participation in the implementation of the 2030 SDGs in Georgia in terms of ongoing processes, challenges and progress over the past 4 years;
- Made financial contributions to 23 multilateral environmental treaties (convention / protocol), international environmental process and organization funds;
- The implementation of national reports on the implementation of 8 international environmental treaties (conventions / protocols) was monitored and submitted to the Ministry of Foreign Affairs of Georgia in accordance with national legislation.

WASTE AND CHEMICALS MANAGEMENT DEPARTMENT

The Department of Waste and Chemicals Management is responsible for developing and implementing a unified state policy on waste management, which serves to prevent and reduce waste generation and its negative impact, to establish effective waste management mechanisms, to promote the efficient use of waste as a resource, and ensuring their safe placement for human health and the environment. The Department is also involved in the development of chemicals management policy and is the main competent authority for the Basel, Rotterdam, Stockholm and Minamata Conventions.

According to the Law of Georgia "Waste Management Code", which is based on the requirements of the directives and regulations provided for in the Georgia-EU Association Agreement, as well as international best practice, an extended producer obligation is in force, which means that the direct producer and marketer of a product, which subsequently becomes a specific waste, must take care to give the product a form that will reduce waste and therefore have a negative impact on the environment. Also, the manufacturer / marketer of the product is responsible for collecting and processing the waste generated from the used product.

The introduction of an extended manufacturer commitment will facilitate the separate collection and use of waste as a resource, the introduction of waste reuse, recycling and recovery technologies, reduction of landfills, introduction of circular economy, etc. An extended producer obligation focuses on the following six types of waste streams: batteries and accumulators, tires, obsolete vehicles, oils, packaging waste, and electrical and electronic waste. In order to implement the extended producer obligation, 6 draft resolutions were developed, of which 4 technical regulations were approved by the Government of Georgia on May 25, 2020:

- Technical Regulation on Waste Management of Batteries and Accumulators (N324);
- "Technical Regulation on Tire Waste Management" (N325);
- Technical Regulation on Waste Management of Electrical and Electronic Equipment (N326)
- "Technical regulation on waste oil management." (N327).

In addition, the electronic register of extended liabilities of the respective producer was introduced and developed, and 4 draft orders for registration in the mentioned database were approved by the Minister of Environment and Agriculture.

- "Rules for the production of an electronic register of the manufacturer's extended liability for the management of tire waste" (N2-772 31.08.20);
- "Rules for the production of an electronic register of the manufacturer's extended liability for the management of waste oils." (N2-773 31.08.20);
- "Rules for maintaining an electronic register of the manufacturer's extended liability for waste management of electrical and electronic equipment" (N2-774 31.08.20);
- "Rules for the production of an electronic register of the manufacturer's extended liability for waste management of batteries and accumulators" (N2-775 31.08.20)

Draft regulations have also been prepared: "Technical regulation on waste management of decommissioned vehicles" has been submitted to the Government of Georgia for consideration and approval, and the draft Technical Regulation on Packaging Waste Management is in the process of agreement with stakeholders.

The draft Law on Waste Import, Export and Transit of the Basel Convention on the Control of Transboundary Movements and Disposal of Hazardous Waste has been drafted, which establishes procedures and mechanisms for the safe transport of hazardous and other wastes across the border. Risk of damage to the environment. The new draft law on waste import, export and transit is in full compliance with the Basel Convention and will fully reflect its requirements.

Chemicals management legislation is being developed and modern substance management systems are being introduced. The Association Agreement with the European Union provides for the development and adoption of legislation in the field of chemicals management. Draft Law of Georgia on Chemicals and Mixtures and working versions of the normative act (s) on "Classification, Labeling and Packaging of Substances and Mixtures" have been developed. The development of this legislation will help to introduce European approaches to chemicals management in the country and strengthen capacity at the national level.

Resolution # 703 of November 27, 2020 on Amendments to Resolution # 263 of the Government of Georgia of June 13, 2016 "On the Procedure for Export-Import of Certain Hazardous Chemicals and Pesticides and Pre-Proven Consent Procedure" was prepared and approved by the Government of Georgia. In accordance with the amendments, the lists approved by the above-mentioned resolution reflect the changes in the commodity codes of the Commodity Nomenclature of the National Commodity Nomenclature of Foreign Economic Activity (SEC) in the process of bringing the International Convention on Harmonized Commodity Description and Coding in line with the 2017 version.

In the framework of the project "Free supply of polychlorinated biphenyls in Georgia" project, an inventory of oils containing polychlorinated biphenyls (PCBs) in the Georgian electricity distribution system and other equipment is underway. Within the framework of the project, trainings were conducted in Kakheti and Samtskhe-Javakheti with the participation of land transport, energy supply and industrial sector companies and representatives of stakeholders involved in the project; Work was underway to develop legislation related to regulation on Polychlorinated biphenyls.

The department operates an electronic waste management system, which runs:

- Fill in / submit hazardous waste transportation forms;
- Submission of company waste management plans;
- Submitting and agreeing on applications for activities subject to registration;
- Submission of annual waste accounting forms (including annual reports on the amount of waste generated, landfill disposal, waste collection and treatment).

By 2020, more than 50 organizations were registered in the electronic waste management system and up to 77,000 forms of hazardous waste transportation were submitted.

The companies develop the companies 'waste management plans and reach an agreement with the Ministry (more than 400 companies' waste management plans are submitted to the Ministry during 2020). This process continues in the future.

In addition to reviewing correspondence related to waste and chemicals management and preparing relevant responses, the department is reviewing correspondence related to transboundary shipments of waste and preparing permits for the import, export and transit of waste. During 2020, 29 permits were issued.

DEPARTMENT OF HYDRO MELIORATION AND LAND MANAGEMENT

Implemented measures in the direction of irrigation

Promoting the establishment of water user organizations

A new law on water users' organizations has been adopted to introduce modern decentralized irrigation management systems. By law:

- The functions of the Ministry of Environment Protection and Agriculture of Georgia have been increased to facilitate the establishment of water users' organizations, to monitor their activities and to exercise state control;
- Georgian Melioration Ltd has established a structural unit for the support of water users' organizations, the staff is trained to ensure the assigned activities;
- Preparatory work for the establishment of farmers' membership associations has started: a plan for the establishment of water user organizations has been prepared, as well as a technical assignment for a communication strategy with farmers;
- With the help of World Bank experts, by-laws were prepared and approved by the Minister - "Rules for maintaining the register of water users' organizations", "Typical form of the charter of water users' organizations", a draft "Terms of the irrigation service agreement to be concluded between the first water user and the water users' organization / other water users" was prepared;
- With the expert assistance of the World Bank, started working on the methodology of the transitional irrigation tariff and the calculation of the transitional tariff;
- Pilot areas have been selected for the establishment of the first water user organizations, where a complete rehabilitation of irrigation systems is underway under a World Bank-funded project. The restored irrigation infrastructure will be given to water users' organizations with the right to use, after which they will be responsible for water supply, maintenance and operation of the irrigation infrastructure in the area designated for them.

Additional funding from the World Bank - Irrigation System Rehabilitation, Reservoir Potential Research

2020 In 2020, the World Bank allocated an additional \$ 9 million to the irrigation sector:

- Development and modernization of irrigation systems on selected sections (Kvemo Samgori, Zeda Rus, Dzevera-Shertula) continues.

In order to improve the water supply of irrigation systems and ensure their efficient functioning, as well as to study the potential of creating additional water resources in the country, a feasibility study and cost-effectiveness of non-functional or newly constructed irrigation reservoirs in Eastern Georgia will be conducted. In the first stage, a general study of 24 reservoirs / locations will be carried out, and a detailed study of the selected reservoirs will be conducted. (Although Georgia is rich in water resources, due to the uneven distribution of annual river runoff, in eastern Georgia, where most of the irrigation systems are located, only 24% of the water is formed, due to which the irrigation water demand cannot be fully met during the vegetation irrigation period. Especially during peak water demand (July-August), when river runoff decreases sharply and some rivers dry up altogether (this has a negative impact on agricultural productivity).

Cooperation with international financial institutions on irrigation projects

- Negotiations were underway with the European Investment Bank (EIB) and the French Development Agency (AFD) to finance the rehabilitation of the Upper Samgori irrigation system. The project proposal was pre-evaluated and it was decided that the project would be fully funded by the EIB and AFD, as well as attract large grant resources from the European Commission, conduct additional project studies, prepare the final design of the project, which will begin complex rehabilitation work.
- Negotiations were underway with the Asian Development Bank (ADB) on the preparation of a "Water Resources Development Program" in Georgia. The target of the investment project was the restoration-modernization of the left main canal and internal networks of Kvemo Samgori, as well as the completion of the rehabilitation of the Tbisi-Kumisi irrigation system, as well as the institutional and management mechanisms of the Georgian Land Reclamation Ltd. of the Ministry of Environment and Agriculture.

Implemented measures to protect land resources

Draft Law of Georgia on Soil Protection

In 2019, the draft law of Georgia on Soil Protection was prepared. The draft law unites the laws of Georgia on Soil Protection and Soil Conservation and Restoration-Improvement. In 2020, a Regulatory Impact Assessment (RIA) document was prepared for the draft Law of Georgia on Soil Protection.

Windbreak (field protection) strips

The draft law of Georgia on Windbreaks (Field Protection) prepared by the Agrarian Committee of the Parliament of Georgia was being updated. In particular, the functions of the LEPL National Agency for Sustainable Land Management and Land Use Monitoring established in 2020 in connection with the inventory, status, registration, restoration and cultivation of windbreaks on agricultural land plots on the territory of Georgia.

The project application "Restoration and cultivation of windbreaks in order to reduce land degradation caused by climate change in vulnerable areas in Georgia" is being prepared for submission to the Green Climate Fund. The total budget of the project is 10 million USD (grant). The accredited body is IFAD, which has experience in cultivating windbreaks in Gori and Kareli municipalities. Up to 27 km of windbreaks were built by IFAD in 2018. At present, windbreaks are being built in Dedoplistskaro with their support. In 2020, the project proposal was being finalized with IFAD representatives, international and national experts

Pasture management

In 2020, at the initiative of the Ministry and with the financial support of the Global Environment Facility, the project "Achieving the Neutral Balance of Land Degradation in Georgia through Restoration of Degraded Pastures and Sustainable Management" was launched. The aim of the project is to assist Georgia in achieving its National Land Degradation Neutral Balance (LDN) National Goals by restoring degraded pastures and sustainable management. The municipalities of Kazbegi, Dmanisi and Gurjaani were selected as pilot municipalities for the project.

To achieve the set goal, the project includes the following components:

- Preparation of a pasture management policy document, on the basis of which new pasture management legislation will be developed;
- Inventory of 20,000 ha of pasture and implementation of pilot projects for sustainable pasture management on 770 ha in Dmanisi, Kazbegi and Gurjaani municipalities;
- Capacity building and awareness raising of stakeholders to ensure sustainable grazing and neutral land degradation;
Preparation of a management policy document, on the basis of which new pasture management legislation will be developed;

In 2020, a national meeting dedicated to the start of the project and the first meeting of the Project Supervisory Committee were held at the national level. The first stakeholder meetings of the project were also held in Kazbegi, Gurjaani and Dmanisi municipalities. Memoranda of Understanding were signed with all three pilot municipalities. By order of the mayors, municipal working groups were set up in all three municipalities to achieve the goals of a neutral balance of land degradation through the restoration and sustainable management of degraded pastures. A technical assignment has been prepared to select an international and national expert whose task is to develop a pasture management policy document.

Project: "Introduction of Sustainable Landscape and Land Resources Management in Rural Areas in Georgia to Reduce Land Degradation and Poverty"

The following land protection measures were implemented within the project

- Pilot seed rotation project was implemented on 210 ha in Dedoplistskaro municipality;
- Village in Akhmeta municipality. In Kasristskali, a pilot project for pasture restoration was implemented on 6 ha, which aims to introduce rotational grazing to improve the quality of pastures. Developed by Liasof. Land use plans for Archiloskalo and Senako;
- Land degradation web portal and global forest portal merged. Data on land degradation were uploaded and published at: <https://atlas.mepa.gov.ge/maps/LandDegradationmap?l=en>
- Developed, printed and disseminated a training module on sustainable land management, including windbreak management, soil protection and pastures;

Project: "Economic and Environmental Benefits for Sustainable Land Management in Vulnerable Communities in Georgia".

The aim of the project is to strengthen the capacity to implement sustainable land management practices to protect Georgia's natural and economic capital. The pilot municipalities of the project are Gori, Kareli, Kvareli and Sagarejo.

In agreement with the local authorities, the following pilot actions were planned and implemented in 2020:

- Seed rotation practice was introduced on 448 ha of agricultural lands. 84 farmers were given free of charge wheat, barley, oats, buckwheat, peas, beans, sainfoin, alfalfa and corn seeds as well as organic fertilizer. An individual, 5-year seed rotation plan has been developed for each farmer plot.
- 3313 meters of windbreaks were planted in Gori (2935 m) and Kareli (378 m) municipalities - seedlings and their fencing materials were given to farmers free of charge - barbed wire and acacia poles;
- 177 ha of agricultural land was sown with uncultivated wheat in Gori (65 ha), Kareli (82 ha) and Sagarejo (30 ha) municipalities - the cost of sowing was fully covered by the project;

A number of studies were also conducted and the following reports were developed:

- Value chain analysis for sustainable agriculture in Gori, Kareli, Kvareli and Sagarejo municipalities;
- Municipal gender profiles;
- Vulnerability profiles of pilot municipalities;
- Integrated Land Use Plans for Pilot Municipalities

Implemented measures in the field of land resource management

Institutional strengthening

- In the field of governance of the Ministry of Environment Protection and Agriculture of Georgia, on January 1, 2020, the LEPL "National Agency for Sustainable Land Management and Land Use Monitoring" was established, whose main function is to register agricultural land resources, produce land balance and create a unified database. The establishment of the agency will contribute to the development of the land market in the country, the introduction of modern technologies for quantitative and qualitative recording of the land fund, sustainable management of pastures and windbreaks, land consolidation and better land use planning.

Land Management Legislative Framework

- A draft resolution of the Government of Georgia on the "Rules for Submitting an Investment Plan and Making a Decision on an Investment Plan" was developed;
- A draft resolution of the Government of Georgia on the "Rules for Compiling the Land Balance and Accounting for Agricultural Land Resources" was developed;

Promoting land consolidation

- In agreement with the World Bank and the Public Registry, a Land Consolidation Expert will be added to the Systematic Land Registration Team, who will work on the issue of land enlargement in parallel with the registration. Also prepare a report on the factors hindering or facilitating consolidation in the pilot areas, on the basis of which a land consolidation policy document should be prepared;

Capacity building through international cooperation

- Collaborate with the European Agency for Spatial Development on remote sensing and the use of satellite data to facilitate the introduction of an agricultural land registration and land use monitoring system;
- The World Bank has allocated \$ 400,000 in 2020 to upgrade the technical and material base of the National Agency for Sustainable Land Management and Monitoring and provide expert assistance. It is planned to introduce a unified electronic system of land balance production and registration of agricultural land resources and data management. Through the unified electronic data management system, it will be possible to electronically manage the registered data of land balance and agricultural land resources in a continuous mode.
- Collaborates with the French Development Agency to provide technical assistance to the Sustainable Land Management and Monitoring Agency under the grant by sharing the experience of the French Land Agency.

DEPARTMENT OF INTERNATIONAL RELATIONS AND EUROPEAN INTEGRATION

European integration

In 2020, the Department of International Relations and European Integration coordinated the preparation of a report on the implementation of various action plans and plans, including between Georgia and the European Union and the European Atomic Energy Community and their Association Agreement between Georgia and the EU. Preparation of the 2021 National Action Plan for the implementation of the Association Agenda and preparation of both the quarterly and annual reports of the 2020 plan.

In 2020, the Sanitary and Phytosanitary Legislative Approximation Process under the Deep and Comprehensive Free Trade Area (DCFTA) with the European Union proceeded according to plan.

In particular, in order to introduce EU legislation in the field of agriculture in Georgia, the national legislation in the field of food safety, veterinary and plant protection from 2015 to 2020 is closer to more than 130 EU legal acts. Only in 2020, the plan envisages approximation of Georgian legislation with 26 legal acts of the European Union, including 9 legal acts - in the field of food safety, 7 - in the field of veterinary medicine and 10 - in the field of plant protection. Of these, 3 EU legal acts were considered irrelevant for Georgia, therefore, approximation was carried out with 23 legal acts.

In order to determine the compliance with the EU legislation, tables of compliance with the draft laws of Georgia and the draft resolutions of the Government of Georgia have been prepared, including the following draft laws on environmental protection:

- Draft Law of Georgia on Environmental Liability;
- Draft Law of Georgia on Biodiversity.

Compliance tables prepared in the field of agriculture were also sent to the European Commission.

The Department was actively involved in the drafting of by-laws based on the draft Law of Georgia on Environmental Responsibility within the framework of the project "Support to the Environmental Obligations of the Georgia-EU Association Agreement". Comments were prepared on the draft bylaws and guidance document. Projects were sent and comments were collected from various departments / agencies. During 2020, 3 meetings were held within the working group under the coordination of the Department as the head of the working group and the project.

Remarks were also prepared by the Department:

- On the Draft Law of Georgia on Industrial Emissions;
- On drafts of the National Maritime Strategy and Action Plan for the Protection of the Black Sea.

In coordination with the Department, reports on the implementation of commitments (in the form of conversations) were prepared (in some cases, as well as action reports and reports on the state of implementation of the action reports). The Department also participated in meetings of committees and subcommittees set up to implement the Association Agreement, as well as meetings of the Eastern Partnership Panel (on Environment and Climate Change) and Platform 3 on Connections, Energy Efficiency, Environment and Climate Change.

In coordination with the Department, reports on the implementation of commitments (in the form of colloquial) were prepared (in some cases, as well as action reports and reports on the state of implementation of the action reports). The Department also participated in meetings of committees and subcommittees set up to implement the Association Agreement, as well as meetings of the Eastern Partnership Panel (on Environment and Climate Change) and Platform 3 on Connections, Energy Efficiency, Environment and Climate Change.

The Department participated in two meetings of the Energy Union Environmental Task Force (May and November). With the coordination and involvement of the Department, information was prepared for the 2020 report on the fulfillment of the obligations under the agreement of the founder of the Energy Union. The Department participated in the draft conclusions of the Ministerial of Energy Integration and the preparation of comments / positions on the "2030 Targets and Climate Neutrality 2020 General Policy and the Policy of the Contracting Parties".

The Department participated in and coordinated, within its competence, the development of the following documents / notes, which are currently being worked on:

- Proposals for the post-2020 Eastern Partnership agenda;
- Draft Association Agenda 2021-2027 between the EU and Georgia.

As part of the Common Black Sea Maritime Agenda, the Department participated in three meetings of the Black Sea Common Maritime Agenda Steering Group, the 2020 Regional Stakeholder Conference, and the Ministerial. Remarks were also prepared on the rules of procedure of the steering group, developed by the Bulgarian side.

international relations

The Department of International Relations and European Integration, in the last quarter of each year, together with the Finance Department, within the framework of the "Georgian Agro-Food Products Popularization Program", sets the schedule of next year's exhibitions and plans the mentioned exhibitions.

In 2020, the Department organized 2 (two) international exhibitions / sales, namely:

- Green Week 2020 (Berlin, Germany, January 17-27);
- Fruit Logistica 2020 (Berlin, Germany, February 5-7).

Given the epidemiological situation in the world, only part of the exhibitions planned for 2020 were held (January-February).

Given the epidemiological situation in the world, only part of the exhibitions planned for 2020 were held (January-February).

In 2020, a Memorandum of Understanding was signed between the Ministry of Environment Protection and Agriculture of Georgia and the Ministry of Agriculture, Forestry and Food of the Republic of Slovenia on cooperation in the field of sustainable forest management. The memorandum aims to implement joint projects and share experiences between the two countries.

The Department has been actively involved in implementing the key priorities set by the Committee of Ministers of the Council of Europe on "People and the Environment", including in the Council of Europe Conference, in defining the main points of the report of the Minister for the Environment and Agriculture.

The Department was actively involved in the legal expertise of the Free Trade Agreement with India.

donor relations

In 2020, a total of 29 projects in the field of environment and agriculture and rural development were funded by donor and international organizations.

- In the field of environment - 22 projects;
- In the field of agriculture and rural development - 7 projects

A total of 34 projects were launched in 2020:

- In the field of environment - 27 projects;
- In the field of agriculture and rural development - 7 projects.
 - On December 17, 2020, the launch of the fourth phase of the European Neighborhood Program for Rural and Agricultural Development (ENPARD IV) was launched, with a total budget of € 55 million. Most of the assistance under Phase IV of ENPARD - € 31 million will be implemented in the form of budget assistance, while the remaining € 24 million will be implemented through various grant and expert assistance projects in the regions of Georgia, including 4 pre-selected pilot regions: Kakheti, Imereti, Guria, Racha-Lechkhumi and Kvemo Svaneti. Phase IV of the program will focus on improving the living conditions of the rural population, including employment, as well as assistance to increase the competitiveness of local products, the introduction of European standards related to food safety and the promotion of Georgian products to the EU. With the efforts and funding of the European Union, the European Neighborhood Program for Agriculture and Rural Development (ENPARD) has been underway since 2013, with the first and second phases being successfully completed and the third phase of the program being similarly successful.

Projects completed in 2020 and results achieved

"Introduce Sustainable Management of Landscape and Land Resources in Rural Areas to Reduce Land Degradation and Poverty"

Donor: Global Environment Facility (GEF)

A windbreak management strategy framework document has been developed (co-financed by GIZ); A draft law on the management of windbreaks was developed; A document assessing the impact of the draft regulation on the Windbreak Management Law was prepared and sent to the Agrarian Committee of the Parliament of Georgia. (Co-financed by IFAD / AMMAR / GEF); Legislative and institutional analysis of pasture management prepared (co-financed by GIZ); Based on situational analysis and key challenges, the structure of the pasture management policy document was prepared (co-financed by GIZ); Document on Impact Assessment of the draft Law of Georgia on Soil Protection (co-financed by IFAD / AMMAR / GEF); The project facilitated the internal discussion of the Agrarian Committee, where the draft law "On Changing the Purpose of Agricultural Lands and Sustainable Management" was discussed; The land degradation web portal and the global forest portal have been merged. Land degradation data was uploaded and published <https://atlas.mepa.gov.ge/maps/LandDegradationmap?l=ka>; A pilot project has been developed for Gardabani Municipality. Windbreaks were planted at 7 km in Sartichala. The crop rotation method was introduced on 50 ha of land. Local farmers have been trained on crop rotation for 4 years from 2019; The pilot project was implemented in Akhmeta municipality. Windbreaks were planted at 7 km in Sartichala. The seed rotation method was introduced on 50 ha of land. Local farmers have been trained on crop rotation for 4 years from 2019; The pilot project was implemented in Akhmeta municipality. The condition of pastures has improved in the villages of Shenako and Kasristskali; The pilot project was implemented in Dedoplistskaro municipality. 6 km was planted in Shirak field. Windbreak, crop rotation was carried out per 100 ha; Information on best practices for sustainable land management adopted as part of 4 pilot projects has been published at <https://qcat.wocat.net/en/wocat/>. Land use plans have also been published, which include issues of neutral land degradation issues; Farmers shared their experiences with neighbors and a crop rotation pilot project was implemented on 210 ha the following year; Kasristskali farmers shared their experience of using electric fences with neighbors and rotational grazing was carried out on 6 ha. A similar project was implemented in Tusheti. Rotational grazing was carried out on 7 ha in Omalo. Windbreaks were planted for 60 km on the territory of Kakheti, Shida and Kvemo Kartli; A training module on sustainable land management was developed, published and disseminated to the population, including windbreak management, soil protection and pastures; The UN Convention to Combat Desertification and the Principles of a Neutral Balance of Land Degradation were trained by 350 people (154 women), including 200 farmers and 150 decision-makers.

Governance Reform Fund (GRF) sub-project "Improving Air Quality Management Capacities in Georgia"

Donor: Swedish International Development Cooperation Agency (SIDA)

Improved the capacity of the Ministry / LEPL - National Environment Agency in the maintenance of the ambient air quality monitoring network; A monitoring network development plan has been developed; The capacity of the Ministry in terms of data validation and verification has been strengthened; There is a Benz (a) pyrene monitoring system; Atmospheric air quality assessment criteria are developed; There are 1990-2006. Period inventory and emission forecasting system; A guide to reducing emissions from the agricultural sector has been developed; Information on air quality issues has been reported.

"Development of the Fourth National Communication of Georgia to the UN Framework Convention on Climate Change and the Second Biennial Updated Report"

Preparing for the Fourth National Communication on Climate Change Vulnerability Assessment and Adaptation Donor: United Nations Development Program (UNDP) Global Environment Facility (GEF)

The following goals were achieved as a result of the implementation of the sub-project:

- Revise climate change scenarios using appropriate models;
- Assessment of climate change, energy, transport, agriculture, natural disasters, water resources, tourism, coastal vulnerability, forest, biodiversity, protected areas, historical monuments and health sectors were conducted for selected regions of Georgia;
- Describe and analyze the impact of climate change on the socio-economic development of Georgia;
- Prepare adaptation strategies for vulnerable regions and sectors, taking into account the ongoing process of developing a national adaptation plan;
- Identify policy frameworks for the effective integration of adaptation measures into national strategies.

Operation, development and service of the European Maritime Observation and Data Network

Donor: European Union

Black Sea data (chemical characteristics of pollution) are presented, which are presented in a format with the possibility of interchangeability with data from other European seas; Assessment of the accuracy and precision of this data was carried out, ie data evaluation and data control procedures were implemented; A public portal featuring data, metadata, and data products has been developed, tested, and launched.

"Transboundary Joint Secretariat in the South Caucasus - Phase III"

Donor: German Federal Ministry for Economic Cooperation and Development (BMZ) / German Development and Reconstruction Credit Bank (KfW)

Rehabilitation of the exhibition hall of Kharagauli Visitor Center has been completed.

"Colchian forests and Wetlands Nominated for UNESCO World Heritage Nomination"

Donor: German Federal Ministry for the Environment, Nature Protection and Atomic Safety (BMUB); Michael Succow Foundation; WWF

Colchian forests and wetlands have been nominated for UNESCO World Heritage Sites.

"Grant Agreement - Insurance of Employees of the Agency of Protected Areas (Territorial Administrations)"

Donor: Caucasus Nature Fund (CNF)

Employees of protected areas are provided with life and health insurance.

"Grant Agreement for Vashlovani, Tusheti, Kazbegi, Kintrishi, Algeti Protected Areas"

Donor: Caucasus Nature Fund (CNF)

Rangers were given a pay supplement for night patrols; Rehabilitation of the park infrastructure was carried out; Equipment was purchased for patrolling and biodiversity monitoring.

"Introduction of SMART Patrol System"

Donor: Caucasus Nature Fund (CNF)

The patrol system was improved and the information obtained was systematized in a unified format.

"Technical and safety expertise of Lagodekhi tree canopy project"

Donor: Caucasus Nature Fund (CNF)

As a result of the expertise, a conclusion was developed for Technical and safety expertise of Lagodekhi tree canopy project.

"Arrangement of artificial islands on Kartsakhi Lake in Javakheti"

Donor: Caucasus Nature Fund (CNF)

Artificial islands were located in Kartsakhi Lake; A bird watching tower was set up near Kartsakhi Lake.

"Arrangement of exhibition space in Borjomi-Kharagauli National Park (Borjomi)"

Donor: EU / ENPARD; Caucasus Nature Fund (CNF)

The Borjomi-Kharagauli Administration (Borjomi) Visitor Center was rehabilitated.

"Arrangement of exhibition space in Borjomi-Kharagauli National Park (Kharagauli)"

Donor: EU / ENPARD; Caucasus Nature Fund (CNF)

The Borjomi-Kharagauli Administration (Borjomi) Visitor Center was rehabilitated.

"Implementation of the Action Plan of the National Forest Agency in connection with the crisis caused by COVID-19"

Donor: German Society for International Cooperation (GIZ)

Forest protection measures were carried out, including fire prevention in forest areas; - Timber measures to provide firewood for schools and other public institutions; - Development of forest road network. As part of the project, the agency implemented forestry activities aimed at creating additional jobs and maintaining the livelihood of the rural population.

Preparation of Georgia's Fourth National Communication and Second Biennial Updated Report on UNDP / GEF Project's UNDP / GEF Framework Convention on Greenhouse Gas Inventory Report and BUR Relevant Chapter

Donor: United Nations Development Program (UNDP) Global Environment Facility (GEF)

The 2010-2013 greenhouse gas (GHG) inventory was audited; 2014-2015 SG inventory was conducted; 2014-2015 Greenhouse Gas Inventory Report prepared in Georgian and English; Greenhouse gas inventory chapter was prepared for SBUR in Georgian and English. All parts of SBUR have been compiled and edited; 2014-2015 GHG Inventory Report and SBUR published in Georgian and English; 2014-2015 GHG Inventory Report and SBUR submitted to UNDP and the Ministry of Environment and Agriculture of Georgia.

"Improving Black Sea Environment Monitoring - Selected Measures"

Donor: European Union, United Nations Development Program (UNDP)

The project was based on the results of already implemented projects (EMBLAS and EMBLAS II) and as a result the following goals were achieved: 1. Improved access and exchanges in line with the principles of the «Maritime Strategy Framework Directive» (MSFD) and the «Water Pump Directive (WFD) and «the Black Sea Integrated Monitoring and Evaluation Program» (BSIMAP); 2. Supported joint actions aimed at reducing river and marine litter in the Black Sea; 3. Awareness of major environmental problems is raised and public involvement in the protection of the Black Sea is increased.

"Improving food quality and safety through capacity building in the dairy sector"

Donor: European Union (EU); European Reconstruction and Development (EBRD); Food and Agriculture Organization of the United Nations (UN FAO)

The competitiveness of commercial dairy farms has been improved by creating opportunities for relevant private and public stakeholders. Contributed to the improvement of the business environment and legislative reforms; Better organization of production helped to improve local milk production efficiency, safety and hygiene standards. Policy advocacy and dairy business strategy development. Trainings and knowledge sharing were conducted for local stakeholders. Liaisons between agribusiness and dairy farmers were improved through meetings and joint activities. International conferences were held.

"Achieving the goals of land degradation neutrality through restoration of degraded pastures and sustainable management"

Donor: Food and Agriculture Organization of the United Nations (UN FAO)

The technical assistance project funds were used to support the preparation of the GEF project GCP / GEO / 006 / GFF: "Achieving Land Degradation Neutrality Goals through Degraded Pasture Restoration and Sustainable Management (MSP)". The TCPF was developed in conjunction with the Project Grant (PPG) and they complemented each other.

TCP funds were used for feasibility analysis to develop GEF project baseline data; Including baseline data collection using participatory assessment of land degradation, sustainable land management Grassland and Pastoral Systems (PRAGA). Funds were also needed for stakeholder consultation and validation seminars, which ensures compliance with GEF policy in consultation with stakeholders.

"Assistance to the Ministry of Environment and Agriculture in Implementing the UN Sustainable Development Goals (SDGs) action plan"

Donor: Food and Agriculture Organization (FAO)

Technical assistance was provided to the SDG National Council Thematic Working Group - Sustainable Energy and Environment; Assisted the Ministry in liaising with UN agencies; In order to coordinate the revenues of the agricultural sector in the process of nationalization of SDGs and to prepare the SDG national document (matrix). The SDG National Document was officially approved in November 2019; The Ministry was supported by national coordinators for training in plant and animal genetic resources. Geostat assisted in the preparation of a new questionnaire for the Quarterly Survey of Farms. Within the framework of the FAO AGRIS project, a new module of economics

was added to the questionnaire, to collect information on the productivity and income of small enterprises. This data is required for the production of SDG indicators 2.3.1, 2.3.2 and 2.4.1.

The seminar "Coordination of Strategic Agriculture Development and Partnership to Achieve the 2030 Agenda" was held. The aim of the seminar was to discuss the role of the private sector in the strategic development of the agricultural sector in Georgia, as well as in achieving the 2030 agenda. An awareness-raising meeting was held with the Deputy Chairman of the Parliamentary Committee on Agrarian Affairs and the Chief of Staff, where they discussed possible cooperation between FAO and the Committee to raise awareness of the 2030 Agenda and the role of food and agriculture in achieving it

"Increasing Revenue Sources in Rural Regions of Georgia: Introducing Unified Approaches to Healthy Seeds in Local Potato Seed Systems"

Donor: Austrian Development Agency (ADA), International Potato Center (CIP)

The research was carried out in the direction of positive selection on the basis of Tsilkani Agricultural Research Center of LEPL; Potato clones provided by the International Potato Center and potato varieties registered in Georgia were placed on the test plots (Varieties obtained from clones provided by the International Potato Center CIP), PVY, PLRV screening and identification of viral diseases is being performed; Farmers in Mtskheta-Mtianeti, Kvemo Kartli, Samtskhe-Javakheti were provided with super-elite and elite seed materials of local potato varieties (Javakheti, Meskhetian, Meskhetian red). Demonstration plots (600 m²) were arranged with 11 farmers; In Akhalkalaki, potatoes were sown on an area of 1 ha, the International Potato Center variety Meskhetian red, about 20 tons of elite seed material was obtained, which was packaged and handed over to 100 farmers for sowing. Effective methods of identifying diseases for the conditions of Georgia have also been developed. Positive selection trainings for farmers were conducted in the potato growing regions.

"Rural Young Entrepreneurs Support Program - Young Entrepreneur"

Donor: Danish International Development Agency (DANIDA)

Under the program, men between the ages of 18 and 35 and women between the ages of 40 could obtain a co-financing project for 40% of the total cost, which should not exceed GEL 60,000. 237 projects were funded under the project. The incentive was given to the development of young entrepreneurs in rural areas and their involvement in business. There has been economic growth in the regions and the strengthening of the private sector. Investments should be made in the production and sale chain of agricultural products. As a result, the socio-economic conditions of young entrepreneurs will be improved and new jobs will be created.

"Increasing the potential for detection and diagnosis of febrile-zoonotic skin lesions in Georgia"

Donor: Defense Threat Reduction Agency (DTRA)

Active and passive epidemiological research was conducted in the country and 2 methods of laboratory research were introduced: immunoenzymatic and PR method. Employees of the National Food Agency and LEPL State Laboratory of Agriculture were trained. As a result of the project, there was an opportunity for both laboratory and epidemiological research of orthopoxvirus in the country.

"Differentiation of Turkish virus serotypes in animals in high risk zones of Georgia"

Donor: Defense Threat Reduction Agency (DTRA)

The research direction of the presented project was to identify Turkish disease (FMD) in high risk areas of Georgia. The main purpose was to characterize the serotypes of the Turkish virus circulating in the country to evaluate the effectiveness of the current vaccination program. Laboratory testing of animal serum samples for all known serotypes of the Turkish virus was selected as part of the project.

In 2020, 7 projects in the field of agriculture and rural development were launched:

"Promoting the economic empowerment of women farmers by promoting dairy production through the Georgia Farmer Field Schools Approach"

Donor: Swiss Development Agency

The 4-year project envisages the development and strengthening of knowledge of small farmers (A small farmer meaning: a female farmer who has an average of 5 dairy cattle), both in terms of dairy safety and exemplary farming practices, as well as through the study of new dairy technologies.

The project will be implemented in Samegrelo, Zemo-Svaneti and Abkhazia.

"Norman E. Borlaug International Agricultural Science and Technology Exchange Program"

Donor: US Department of Agriculture (USDA)

The project will help improve agricultural productivity, ensure food security and economic growth. The program is also in line with all three strategic objectives of the United States Department of Agriculture External Relations Service: Trade promotion, trade policy and trade opportunity development, and food security, which includes the export of agricultural products from the United States through the strengthening of agricultural practices and policies in developing and middle-income countries.

"Georgian National Animal Health Program Technical Assistance"

The Ministry supports the implementation of legislative requirements, in particular the requirements for rapprochement with the EU, through the implementation of the National Animal Health Program. The National Development Animal Health Program adopted by AHSC and its Action Plan for 2020 - 2025 will ensure the continuation of the dialogue platform and the development of a framework for the Ministry of Agriculture.

"Readiness for locust invasion and emergency response in Georgia"

Donor: Food and Agriculture Organization (FAO)

Within the framework of the project, the security of livelihood, food and animal feed of the population living in the locust invasion areas of Georgia will be implemented: Effective prevention of crop, cattle feed, food and forest cover loss due to locusts; Support the Ministry's locust management research and control operations and timely response to locust invasion; The Ministry's capacity to monitor locusts will be strengthened; Educational materials will be disseminated to raise awareness about locust management and danger.

"Rural Development Program"

Donor: European Union

The 2-year program envisages the promotion of rural economic and environmental activities through co-financing.

The goals of the program are: to promote the development of non-agricultural entrepreneurial activities in rural areas, which in turn will help stimulate the economic development of the municipality, improve the socio-economic situation, economic diversification and create new jobs. Overcoming environmental and climate change challenges and using natural resources efficiently.

"Modernization of Vocational Education Related to Agriculture in Georgia (Phase 2)" activities promoting education, public awareness and involvement in agriculture and the environment in the promotion process

Donor: United Nations Development Program in Georgia (UNDP), Swiss Agency for Development and Cooperation (SDC)

The aim of the project is to increase the institutional capacity of the LEPL Center for Environmental Information and Education of the Ministry of Environment Protection and Agriculture of Georgia and to support the introduction of training mechanisms in the field of agriculture, which also includes creating quality assurance mechanisms based on international practice and increasing the capacity of the Center staff.

"Strengthen national programs for inspection and monitoring of food contaminants and waste"

Donor: International Atomic Energy Agency

The aim of the project is to establish a competent laboratory in the field of personnel and equipment in order to improve the regime of regular and reliable inspection (Such as veterinary medicines, pesticide residues and microtoxins) and monitoring of food contaminants through nuclear / isotope techniques. LEPL State Laboratory of Agriculture is responsible for waste monitoring in the country and owns 11 laboratories for the purposes of this service. The project will focus on infrastructure and human resource development. LEPL Laboratory of the Ministry of Agriculture will carry out relevant laboratory tests and examine the samples collected by the National Food Agency; Develops new standard-operating procedures; 5-6 laboratory staff will be trained in developing new methods for identifying food contaminants and waste; The laboratory of the Ministry of Agriculture will develop new methods of food waste control, which will be approved by the laboratory.

In 2020, 27 environmental projects were launched:

"Sustainable urban mobility in the South Caucasus (Mobility4Cities)"

Donor: German federal ministry for economic cooperation and development

The overall goal of the 3-year project is to assist South Caucasus city administrations to plan, implement and develop transport systems in the context of sustainable urban development. The project aims to support the Tbilisi Municipality City Hall and Batumi City Hall for effective implementation of planned activities in urban mobility. These include measures to introduce a smart transport system, optimize the public transport network, support dialogue with the private sector, and exchange innovative issues related to mobility between the cities of the South Caucasus. Sustainable mobility is one of the determinants of living standards and it affects the health of the population in cities where the pressure from traffic is still growing. The project consists of 4 components and includes the following: 1. Technical support to cities (Tbilisi and Batumi) 2. Capacity building (including strengthening sustainable urban capacity in universities. Cooperation with the Georgian Technical University and Dresden Technical University is planned). 3. National Framework for Urban Mobility; (Involvement of relevant ministries) 4. Regional communication and information exchange (South Caucasus - Azerbaijan, Georgia, Armenia).

"Working group on the nitric acid climate"

Donor: German environment, nature conservation and nuclear safety and the ministry of federal ministry

The project aims to equip a nitric acid production plant in Georgia with nitrogen oxide absorption technology that causes climate change. It is planned to equip the Rustavi Nitrogen Plant with nitrogen oxide absorbing technology that causes climate change.

"Development of Low Emission Sustainable Transport in Georgia"

Donor: United Nations Environment Program (UNEP)

The aim of the project is to provide technical assistance to assess the possible economic impact of the introduction of restrictions on vehicles in Georgia on the basis of relevant EU standards. The project will conduct a cost-effectiveness study on the introduction of low-emission transport policies and standards in Georgia.

"Achieving the goals of a neutral balance of land degradation in Georgia through the restoration of degraded pastures and sustainable management (LDN)"

Donor: Global Environment Facility (GEF)

"The aim of the project is to assist Georgia in achieving its national land degradation neutral balance (LDN) goals by restoring degraded pastures and sustainable management. The municipalities of Kazbegi, Dmanisi and Gurjaani were selected as the pilot municipalities of the project.

To achieve this goal. The project includes 4 components:

- Strengthen policy documents and institutional frameworks to achieve a neutral balance of land degradation, result - introduction of the principles of sustainable land management on pastures;
- Objective 4 of the Neutral Balance of Land Degradation has been achieved by the degraded local population using sustainable pasture land management practices with the help of coordination mechanisms. Result - 20,000 ha of pasture inventory and implementation of pilot projects on 770 ha in Dmanisi, Kazbegi and Gurjaani municipalities;
- Strengthen the capacity of stakeholders and raise awareness, to ensure sustainable pasture management and a neutral balance of land degradation;
- Project implementation Document and disseminate risk-based management and best practices. Result - Monitoring and evaluation of project progress.

In 2020, a national meeting dedicated to the launch of the project was held at the national level, the first meeting of the Supervisory Committee. The first stakeholder meetings of the project were also held in Kazbegi, Gurjaani and Dmanisi municipalities. Memoranda of Understanding have been signed with all three pilot municipalities. By order of the mayors, municipal working groups were set up in all three municipalities to achieve the goals of a neutral balance of land degradation through the restoration and sustainable management of degraded pastures.

"Effective Implementation of Legislative Objectives on Illegal, Undeclared and Unregulated Fishing (IUU Fishing)"

Donor: EU within the framework of TAIEX technical assistance, Twinning

The project aims to conduct trainings for IUU Fishing Environmental Oversight Inspectors and staff having direct contact with IUU Fishing.

"Tbilisi National Park Planning"

Donor: World Bank

Ecotourism infrastructure is being planned in Tbilisi National Park within the framework of the initiative. Design work has started.

"Truso Protected Landscape Planning"

Donor: World Bank

As part of the initiative, ecotourism infrastructure is being planned in the Truso Protected Landscape Area. Design work has started.

"Establishment of New Protected Areas"

Donor: World Wide Fund for Nature (WWF)

The initiative carries out feasibility studies for new protected areas and the expansion of existing protected areas.

"Lagodekhi Protected Areas Grant Agreement"

Donor: Caucasus Wildlife Fund (CNF)

The project involves providing a salary supplement to Lagodekhi Park staff, co-financing the restoration of buildings, maintenance and running costs, upgrading equipment and fleet, and establishing a key-type monitoring system.

"Machakhela Protected Areas Grant Agreement"

Donor: Caucasus Wildlife Fund (CNF)

The project involves providing a salary supplement to the park administration staff, co-financing the restoration of buildings, maintenance and running costs, upgrading equipment and fleet, and establishing a key-type monitoring system.

"Grant Agreement - Insurance of Employees of the Agency of Protected Areas (Territorial Administrations)"

Donor: Caucasus Wildlife Fund (CNF)

The project aims to provide insurance for employees of territorial administrations.

United Nations Development Program and the National Forest Agency of Georgia Agreement on Activities in the "Rural Development Improvement Project in Georgia" with the Support of UNDP

Donor: United Nations Development Program (UNDP)

The project aims to support the LEPL National Forest Agency to implement sustainable forest management on 73,528 ha of forest area. Among them, inventory of Dedoplistskaro (19 326 ha) and Tetrtskaro (54 202 ha) forest areas and preparation of management plans. To achieve these goals, the LEPL National Forest Agency is obliged to: select an additional 20 young foresters and train them in the field of forest inventory; Employ a trained forester; Inventory of Dedoplistskaro-Sighnaghi, as well as Tetrtskaro forest areas; Prepare management plans for Dedoplistskaro-Sighnaghi and Tetrtskaro forest districts.

"Sustainable Forest Management in Adigeni Municipality"

Donor: Center for International Cooperation and Development (CMSR) of the Republic of Slovenia

The project is part of the eco-corridor program and will be implemented during 2020-2021. Its purpose is to promote sustainable forest management and improve the socio-economic situation of the local population in Adigeni Municipality. The project will carry out a forest inventory and prepare a forest management plan for the Adigeni forest area, as well as develop a multi-purpose forest use plan. The project additionally includes a capacity building component for both forestry workers and locals. Slovenian experts will be involved in the implementation of these activities together with local experts, who will share the Slovenian experience of sustainable forest management with the LEPL National Forest Agency and the local population of Adigeni.

"Facilitating the introduction of multifunctional forest use practices"

Donor: United Nations Development Program (UNDP); Swedish International Development Cooperation Agency (SIDA)

The project aims to promote the use of tourism and recreational potential and ecotourism in the forest areas under the management of the LEPL National Forest Agency and to raise public awareness of the importance of forests and their contribution to the Sustainable Development Goals (SDG). The social functions of forest ecosystems include, among other functions, the provision of recreational and ecotourism services to the public, although currently no ecotourism development plans have been developed for the forest areas of Georgia. Therefore, the National Forest Agency seeks to introduce multifunctional forest management practices and enhance the sustainable use of tourist and recreational forests.

"Biodiversity and Local Sustainable Development in Georgia"

Donor: German Federal Ministry for Economic Cooperation and Development (BMZ)

"Support to Georgia in the Development of Sustainable Public Procurement and Additional Tools"

Donor: United Nations Environment Program (UNEP), EU

The project aims to support Georgia in developing sustainable public procurement (SUP) and additional tools. It serves the following tasks: Strengthen the capacity of procurers and businesses in Georgia for sustainable public procurement to meet the requirements of public tenders in accordance with the criteria of sustainability; Strengthen the capacity of government agencies and the private sector regarding eco-labeling; Prepare a green economy training course in Georgian and conduct it at least once a year for three years.

"Capacity building in the field of radioactive waste management in Georgia"

Donor: the Swedish Radiation Safety Authority, and the Swedish International Development Cooperation Agency.

As a result of the project, Georgian specialists will have sufficient knowledge and skills to manage new facilities and safely manage radioactive waste.

"Development and Licensing of Radioactive Waste Management Infrastructure (Phase II)"

Donor: European Union, Swedish Radiation Regulator SSM

The aim of the project is to prepare a detailed design of radioactive waste management facilities.

"Enhancing knowledge in the field of radioactive waste management"

Donor: Swedish Radiation Regulatory Authority SSM, Swedish organization Sida

The goals of the project are: National capacity analysis; Develop an action plan to strengthen national capacity.

"Promoting technological innovations in environmental monitoring and modeling to assess fish stocks and non-fishery resources" (TIMMOD)

Donor: European Union

The project aims to improve joint environmental monitoring and modeling by promoting technological innovation, Improving data access and quality, sharing cooperation on Black Sea water quality, biodiversity statistics and fish stocks and non-fishery resource assessment data - In line with the EU Maritime Strategy Framework Directive (MSDF), the Data Collection Directive (DCF), the Blue Growth Strategy, the Black Sea Environmental Convention and other EU and regional policy instruments and conventions. The promotion of innovation aims to apply new tools, approaches and technologies to the implementation of EU policies and programs. The BSB CBC program is a suitable platform for accelerating technological upgrades that would otherwise not be possible through the efforts of one country, one sector or one actor.

"Strengthening Climate Change Adaptation Capacities in Georgia" [Activity 2.2.1 - Development of Multiple Threat Maps and Risk Profiles for the following Threats: Floods, Landslides, Floods, Avalanches, Hail / Strong Winds and Droughts for Georgia's 11 Major River Basins »- Phase 2

Donor: Swiss Agency for Development and Cooperation (SDC)

The main goal of the project is to develop a well-established system of knowledge on multidimensional hazard risk to ensure effective climate risk management of all hydrometeorological and geological hazards in Georgia. For this purpose, the project will develop maps of natural hazards (floods, landslides, mudslides, snowstorms, hail, strong winds and drought) for 11 major basins of Georgia. Current sub-project includes the following three river basins: Enguri, Khobistskali, Mtkvari (left bank within Tbilisi). The following activities are provided: 1. Processing of historical hydrometeorological and geological data; 2. Field hydrometeorological and geological surveys in target basins; 3. Obtained field data processing.

"Rapan Studies in the Coastal Waters of Georgia"

Donor: Food and Agriculture Organization of the United Nations (FAO)

The aim of the project is to assess the reserves of Rapan in the Black Sea and to contribute to the preparation of the management plan, which is aimed at catching Rapan sustainable use of resources in the Black Sea. In particular, these studies will help achieve the GFCM Medium-Term Strategy (2017-2020) Goal 1 for Sustainable Mediterranean and Black Sea Fisheries, as well as FAO Strategic Development Goal 14 (Sustainable Development of Seas, Oceans, and Marine Resources maintenance and sustainable use) and achieving the 2nd strategic task (increasing productivity and sustainability of agriculture, forestry and fisheries).

"Expansion of the Multiple Threat Warning System and Use of Climate Information in Georgia" (Information and Communication Technology (ICT) System and High Performance Computer (HPC) procurement)

Donor: Green Climate Fund (GCF)

LEPL - National Environment Agency is responsible for the activities related to the expansion of the hydrometeorological network, assessment of various threats and mapping, Establish a metadata database of threats, develop a telecommunications system to support the new early warning system, integrate the telemetry system for real-time early warning system deployment and use, and develop plans to reduce the risk of multiple river basin threats.

The overall goal of the sub-project is to assist the Agency in developing a robust telecommunications / information and communication technology system that will enable it to produce high-precision hydrometeorological and climate forecasting information. An Information and Communication Technology (ICT) system and a high-performance computer (HPC) will be procured for the Hydrometeorology Department of the National Environment Agency, which will contribute to the establishment of a robust telecommunication / information and communication technology system. Which, in turn, will enable the National Environment Agency to produce high-precision hydrometeorological and climate forecasting information.

"Expanding the Multiple Threat Warning System and the expansion of climate-related information for use in Georgia" [Activity 2.2 - Development and Implementation of Multiple Threat Warning System (MHEWS), which includes all 11 river basins of Georgia (including "last mile" cover)] - Phase 1

Donor: Green Climate Fund (GCF)

One of the key elements of an effective Multiple Threat Early Warning System (MHEWS) is the accurate prediction of threats as well as the well-organized delivery of warnings to the final target - the public. The development of such an effective MHEWS depends to a large extent on the improved internal capacity of the National Environment Agency (NEA) - of the Ministry of Environment and Agriculture of Georgia. The following medium-term results will be achieved as a result of the implementation of the sub-project:

- Initial design of a multifaceted early warning system;
- River Rioni flood prediction operating platform, flood prediction and Early Warning System (FFEWS) for the selected river basin;
- Identified capacity needs of the agency;
- Compiled database of historical information;
- Improved weather forecasting capabilities;
- New data sources are integrated into the forecasting platform;
- Initial designs of developed hazard forecasting systems;

The overall goal of the sub-project is to improve the agency's capabilities in the field of multidisciplinary threats, monitoring, forecasting and early warning by strengthening data analysis and processing, modeling, forecasting and warning skills.

"Expanding the Multiple Threat Warning System and Using Climate Information in Georgia" (Procurement of Hydrometeorological Monitoring Equipment)

Donor: Green Climate Fund (GCF)

To improve the national early warning system, it is important that the LEPL - National Environment Agency has a sufficiently extensive network of hydrometeorological observations. In order to collect timely and reliable hydrometeorological data from all parts of Georgia, it is important that the observation network is equipped with modern automatic observation devices. The following equipment will be procured for the Hydrometeorology Department of the National Environment Agency: Which will strengthen its monitoring capabilities:

- Automatic meteorological stations - 12 pcs.
- Automatic meteorological checkpoints - 73 pcs.
- Automatic hydrological checkpoints - 44 pcs.
- Snowmelt meteorological stations - 10 pcs.

Hydro-acoustic study of anchovy (*Engraulis encrasicolus ponticus*) in the Georgian territorial waters of the Black Sea"

Donor: Food and Agriculture Organization of the United Nations (FAO)

The aim of the sub-project is to carry out hydroacoustic studies of wintering herds of the main trade resource in the Georgian maritime space - Black Sea anchovy (*Engraulis encrasicolus ponticus*). The obtained data will help to assess the current state of the stock of this resource and to forecast the allowable level of its exploitation.³

DEPARTMENT OF ENVIRONMENTAL ASSESSMENT

The Department of Environmental Assessment provides the “Environmental Assessment Code” for strategic documents and public or private activities provided for by the law of Georgia, the implementation of which may have a significant impact on the environment, human life or health; Implementation of procedures for strategic environmental and environmental impact assessment, public participation in the relevant decision-making process and expertise, as well as the agreement on air and water protection documentation.

Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) are the main tools for preventing adverse environmental impacts and have similar objectives and a number of characteristics with the same properties, especially in terms of procedural elements. However, there is a significant difference between them. The EIA focuses mainly on what kind of impact the project will have on the environment and human health, while, The SEA, considering the strategic document, considers it in a broader context, in particular, assesses the impact of the implementation of the strategic document on the goals of environmental and human health, its expected impact on long-term trends, etc..

Strategic environmental assessment

Strategic Environmental Assessment is a novelty for Georgian legislation and aims to facilitate the country's strategic planning and to integrate environmental and human health aspects into the process.

In 2020, the Department prepared a Scoping Report on Strategic Environmental Assessment for four strategic documents in the spatial organizing and planning sector::

- General plan of Daba Surami and development plan of the central district;
- General plan of Zugdidi city;
- Kazbegi Municipality and the communities of the spatial planning plans;
- Development plan of Grigoleti and Kvavilnari coastline. Recommendations were also issued on two strategic documents and the ESIA report:
- Zugdidi City General Plan and Strategic Environmental Assessment Report;
- Lebarde Resort Development Plan and Strategic Environmental Assessment Report.

On October 26-27, 2020 within the framework of the "EU4Environment" project, A seminar was held "On the Practical Application of Strategic Environmental Assessment and Transboundary Environmental Impact Assessment". The seminar was attended by representatives of the government sector of the Eastern Partnership countries. The aim of the seminar was to share existing information and experience related to strategic environmental assessment and trans-border impact assessment procedures and to present examples of existing international best practices. The project also plans to update the Strategic Environmental Assessment Manual and bring it in line with the Code, also develop a sector guidance document, implement a pilot project and conduct trainings for municipalities and planning authorities.

Environmental Impact Assessment

Environmental Impact Assessment covers all activities (by scale and category) that have a significant impact on the state of the environment and human health.

Prepared by the Department of Environmental Assessment in 2020:

- 195 Environmental Impact Assessment Screening Decision;
- 98 Scoping conclusion of environmental impact assessment;
- 79 Environmental decision;
- 140 Environmental decision (through simple administrative proceedings);
- 2 Recommendation from EIA on release;
- 1 Recommendation on changing the condition set by the environmental decision;
- 14 Order on the transfer of an environmental decision;
- 53 Reasonable time limit for fulfilling the conditions violated on the fact of violation.

Within the framework of the "EU4Environment" project, it is planned to update the existing guideline for environmental impact assessment and bring it in line with the Code, as well as to prepare an environmental impact assessment guideline for hydropower plants.

Public participation in the Environmental Impact Assessment / Strategic environmental assessment decision-making process

The Department of Environmental Assessment provides to the public with the start of EIA / SEA administrative proceedings and the provision of timely, effective and adequate information on the possibility of public participation in such proceedings and the availability of documentation to the public. Public participation in public hearings, ability to submit opinions and comments and take them into account in the decision-making process is also ensured, As well as providing information about the decision to the public and making it available in accordance with the rules established by the legislation of Georgia.

The EIA and SEA documentation submitted to the Ministry will be posted by the Department on the official website of the Ministry WWW.MEPA.GOV.GE within 3 days, It is also sent to the executive and / or representative body of the relevant municipality for publication on the information board. Upon request, printed copies or electronic versions of these documents are available. Upon request, printed copies or electronic versions of these documents are available.

In 2020, the Department posted 870 applications for EIA / SEA procedures on the Ministry's website, along with relevant documentation, as well as 190 applications for public review.

The Code provides for a public hearing at the stage of reviewing the Environmental Impact Assessment Scoping Report and the EIA Report, also the Strategic Environmental Assessment Report. The public hearing is open and any member of the public has the right to participate. Public hearings should be conducted in the planned activity on the ground near the administrative body of the building or the surrounding area. Information on the conduct of the public hearing shall be posted on the information board and / or website of the executive body of the relevant municipality and / or representative body, as well as in the established place of dissemination of information.

Pursuant to Article 5 of the Resolution of the Government of Georgia N181 of March 23, 2020 "Measures to be taken to prevent the spread of the new Georgian coronavirus (COVID-19)", the gathering of more than 10 individuals in public space was prohibited, and whereas public hearings should have been held in different municipalities, where a number of interested parties could have expressed their desire to participate, which increased the risks of coronavirus transmission in Georgia, N^o Resolution N^o181 of the Government of Georgia of March 23, 2020 "On Approval of Measures to Prevent New Coronavirus in Georgia" Pursuant to the Resolution of the Government of Georgia N^o196 of March 26, 2020 on Amendments to the Code of Environmental Assessment, the administrative proceedings initiated for the scoping report and the issuance of the environmental decision provided for by the Law of Georgia were carried out without public discussion and public participation in it. The opportunity to submit comments was provided in writing (address: Tbilisi, Marshal Gelovani Avenue N6) or by e-mail (e-mail address: eia @ mepa.gov.ge).

Given the limitations of the state of emergency, in order to effectively inform and engage the public Information about the ongoing proceedings in the Ministry was additionally posted on the website of the LEPL Education and Information Center, As well as on the Facebook page of the Center and sent emails to all NGOs working on environmental issues and more than 6000 subscribers via mail. Under the state of emergency restrictions, information was also placed with grocery stores, pharmacy chains and medical facilities in the respective municipalities. In addition to the documentation submitted to the Ministry, a short presentation on the planned activities was additionally uploaded on the Ministry's website. Which was also sent to the relevant municipalities for posting on the websites and was available to any member of the public, as on the official website of the Ministry, as well as in material form upon request.

However, from June 2020, due to the epidemiological situation, public hearings were organized by the department in the buildings of the administrative unit, school yards and other open spaces.

On September 18, 2020, an amendment was made to the Environmental Assessment Code (<https://matsne.gov.ge/document/view/4994730?publication=0>), Which provides for the possibility of conducting public hearings remotely, using electronic means of communication, in the event of a pandemic /epidemic defined by the legislation of Georgia, taking into account the epidemiological situation in the country. Accordingly, after October 1, 2020, public hearings were conducted remotely, using electronic means of communication.

In addition, to improve the publicity of the environmental decision-making process and the effective participation of stakeholders, the Department, with the support of the LEPL Center for Environmental Information and Education, has launched an electronic environmental assessment system that includes a public portal component. In 2020, a technical assignment for the Public Portal on Environmental Assessment was developed and its software launched

Regulation of emissions of harmful substances into the ambient air from stationary sources of pollution and removal / discharge of water from surface water bodies, recording of emissions of harmful substances into the ambient air and collection of water use statistics

The department agreement during 2020:

- 558 Technical report on stationary sources of atmospheric air pollution and emissions of harmful substances emitted by them;
- 75 Draft norms for maximum emission of harmful substances into the ambient air;
- 30 Draft norms for maximum discharge of pollutants into surface water bodies;
- 158 Draft technical conditions for water removal from a surface water body;
- 3708 State registration form of emissions of harmful substances;
- 644 State Statistical Record of Water Use

3 permits for import, export, re-export and transit of ozone depleting substances were issued (according to the 2020 import quota (53 t)).

The Department has prepared Draft Government Resolutions “on Approval of the Technical Regulation on Calculation of Maximum Permissible Emission Norms for Atmospheric Air”, on the Amendment to the Resolution of the Government of Georgia №408 of December 31, 2013, on Amendments to the Resolution №414 of the Government of Georgia of December 31, 2013 adopted by the Government of Georgia on 4 February 2020.

Within the framework of the "EU4Environment" project, with the assistance of OECD experts, a Working Paper on General Binding Rules (GBR) for the poultry sector was developed, which includes simple, practical and flexible binding guidelines and rules for poultry farms based on European principles, including: For small and medium-sized facilities, in parallel with the effective implementation of activities, in terms of prevention and mitigation of environmental impact, the working document, along with environmental challenges in the poultry sector, was discussed at a joint meeting of Ministry and poultry sector representatives and OECD experts on 28 July 2020.

DEPARTMENT OF BIODIVERSITY AND FORESTRY

The competence of the Department of Biodiversity and Forestry is to develop state policies in the field of protection and conservation of biodiversity, management and regulation of biological resources elaboration of state policy; To develop, plan and coordinate mechanisms for the protection and regulation of plant and animal species included in the Red List of Georgia. Coordinating the process of creation, management and monitoring of protected areas included in the international network; Develop state policy in the field of protected area management and coordinate/support its implementation; Develop state policy in the field of forest management and coordinate/promote its implementation; Preparing proposals for the implementation of state reforms in the forestry sector and coordinate the forest reform process; Discuss the expediency of granting and terminating forest status; Provide national forest registration and forest information and monitoring system. Coordination of the fulfillment of Georgia's obligations under international treaties and agreements in the field of biodiversity protection. Planning and coordinating the implementation of strategies and action plans in the field of biodiversity, protected areas, wildlife, hunting, fishing and forest, national forest program of Georgia.

During 2020, the two divisions within the Department of Biodiversity and Forestry continued to work actively within the scope of their competence on environmental impact assessment, strategic environmental assessments and emerald impact assessment documentation, to review the applications of citizens and non-governmental organizations, to implement and coordinate legislative acts and sectoral policies. The Department has been actively working on sectoral donor and project coordination and ensuring the implementation and reporting of international conventions in the field of forest and biodiversity.

Protected Areas and Forest Policy Division

Law of Georgia "Forest Code"

In 2020, the comments prepared by the agencies on the draft Forest Code were reflected in the final version. The Department took an active part in the parliamentary committee discussions, prepared reasoned answers, participated in the work of the special working group set up by the Parliament of Georgia, Additional working discussions and consultations were organized, as a result of which the Parliament approved the law on May 22, 2020. "Georgian Forest Code", which entered into force on January 1, 2021..

"Forest Code of Georgia" By-laws

In parallel with the work on the new draft "Forest Code", the Department has prepared the first working versions of the by-laws in accordance with the law. After approval of the Code (May 22, 2020) Considering the changes made in it, the Department has started working on the final versions of the bylaws, for which a work plan was prepared and relevant commissions were set up. Intensive online working meetings of the established commissions took place in the fourth quarter of 2020. "Forest protection, restoration and maintenance of the Government" and "Forest of the accounting system, categorizing and monitoring rules" provisions of the working versions.

Document of National Criteria and Indicators for Sustainable Forest Management

Sustainable forest management criteria and Indicators (C&I SFM) in Georgia is an effective tool for measuring the progress of the national sustainable forest management (SFM). In addition, the development of C&I is seen as a mechanism for stakeholder engagement in the forest sector reform process to reflect diverse interests and establish a more inclusive decision-making process in the forest sector. The process of developing sustainable forest management criteria and indicators in Georgia started in 2014 with the support of the GIZ IBiS project. At the end of 2020, the work on the document on national criteria and indicators for sustainable forest management was completed, and an information card for each criterion and indicator was prepared. The results were presented to the UN economic commission for Europe by UNECE / FAO.

Unregulated non-timber forest products for a new regulatory system

At the initiative of the Department, a research on non-timber forest resources was conducted and the following documents were prepared within the framework of the Biodiversity Financing Initiative (BIOFIN) project:

- List of plant species of commercial importance (up to 10 species);
- Carry out market research to identify the amount of extraction for each selected species;
- Calculation of natural resource use fee rates for each species;
- Draft relevant amendments to the legislation;
- Prepare recommendations for monitoring the commercial use of non-timber forest products.

National forest program thematic meetings with stakeholder Involvement

The National Forest Program process has been underway since September 2013 and aims to involve stakeholders in the forest sector reform process and ensure public participation in the decision-making process. In 2020, 17 working meetings were organized within the framework of the National Forest Program and minutes of all meetings were developed:

- Working Group I - "Forest Restoration and Protection" Meeting. Topic: getting acquainted with the condition of "Colchic boxwood", spruce, pine, chestnut trees and in general, the sanitary condition of forests.
- Working Group II - alternative energy resources and sustainable use of firewood " Meeting on the topic: Energy efficient stoves
- Working Group III - - "Reducing the pressure on the forest by increasing energy efficiency and the use of alternative renewable energy"
- Working Group VII - "Forests and Climate Change" Meeting on the topic: "Kakheti Biosphere Reserves".
- Working Group VIII - NFI-National Forest registration summary meeting
- Working Group IV - "Institutional Reform" (8 meetings)

Information and Monitoring System (FIMS)

Work is underway to establish a forest information and monitoring system, which is a complex system and integrates all types of information generated in the forestry sector and ensures the storage of information in accordance with modern standards. Specifically,

it includes the development of IT infrastructure, as well as the development of relevant programs in accordance with the needs of the country (Ministry).

In 2020, 1,300,000 GEL of IT technical equipment was purchased by GIZ. This ensures the storage of the collected data and the possibility of its processing.

The final stage of implementation is one component of FIMS, "the development of the Forest Management Plan" Inventory program, which aims to analyze the data collected in the forest and develop a 10-year forest management plan

The first biosphere reserve in Georgia

In 2020, important steps were taken to establish the Alazani and Dedoplistskaro Biosphere Reserves in the three regions of Kakheti, Within the framework of the National Forest Program, a meeting was held with those who were interested in the creation of biosphere reserves. Territorial zoning was completed with the direct involvement and coordination of the Department; In the same year work has started on the nomination document, the working version of which has been prepared. A pilot site for the Dedoplistskaro Biosphere Reserve was also set up and documents for the institutional analysis of biosphere reserve management were prepared.

(GCF) Climate Green Fund project

The supervisory board of the Green Climate Fund approved a grant of 33 million Euros in August 2020 for the implementation of the project "Support to forest sector reform to reduce greenhouse gas emissions due to forest degradation in Georgia". After grant approval:

- On September 2, 2020, a high-level opening event of the project was organized by the Department at the Ministry.
- In September 2020, a project coordination working group was set up. The group consists of the central office of the ministry (Department of Biodiversity and Forestry, finance, law, environment, climate and international), project implementing agencies within the Ministry. (LEPL National Forest Agency, A(A) IP Rural Development Agency, SSD environmental supervision and LEPL Center for Environmental Education and Information) as well as representatives of the German Society for International Cooperation (GIZ);
- In 2020, an information campaign was conducted in Guria region and Dedoplistskaro municipality, a presentation was made to the local self-governments on a general overview of the main issues of the project;
- Bilateral meetings were organized by the Department to discuss with the implementing agencies the working versions of the grant agreements

Georgian National Forest Registration

For the first time in 2018, a national forest inventory is being carried out in Georgia, which collects information on more than 70 directions/contents in the forests of Georgia using a statistical method. The results of the inventory will help the country in making political and strategic decisions, climate observation, scientific and educational directions, and international reporting.

In coordination with the Department, field work on national forest registration was conducted in 2020 in the forests of Samegrelo-Zemo Svaneti, Samtskhe-Javakheti, Imereti, Shida Kartli and Kakheti (partly) In the forests of the area; A total of 40 forest specialists were employed; Data obtained as a result of field work were processed and reports were prepared; On December 22, 2020, a summary public hearing of the National Forest Registry was held, where the preliminary data calculated on the basis of the recorded data were presented.

Inventory of forest management level

In 2020, forest management plans were prepared by the forest management bodies based on the information received as a result of the forest inventory. The staff of the department was actively involved in the field control of the inventory of Lentekhi and Akhmeta forest districts. Relevant recommendations and remarks were made. With the involvement of the Department, technical assignments and forest management plans were reviewed and approved:

- Chokhatauri forest district forest management plan;
- Pshav-Khevsureti national park forest management plan;
- Tbilisi National park forest management plan.

Clarification of forest fund boundaries

In order to specify the state forest area, maps and a draft of changes were prepared in 2020 Amendment N299 of the Government of Georgia "On Determining the Boundaries of the State Forest Fund", a change was made, as a result of which the forests in the Abkhazian Autonomous Republic (approximately 425,000 ha) were returned to the boundaries of the State Forest Fund. In 2020, the state forest fund (15,000 ha) in the sea area of the Kolkheti National Park was excluded from the state forest. Finally, the state forest boundaries have been clarified, which can be changed only in case of forest management level registration and granting and revoking forest status. According to the adjustment results, the total state forest is 3007836 ha, which is 43% of the country.

Annex X. Georgian Forest, renewed area as of 2020.

Develop a protected area policy

In 2020, the Department of Biodiversity and Forestry was reorganized, as a result of which the development / coordination of the sectoral policy of protected areas was clearly defined in the competencies of the Department. Accordingly, in order to study the problematic and priority issues of protected areas and to determine the relevant policies, as well as to prepare recommendations, the Department has started active work with the relevant governing public authorities.

In 2020, work resumed on the protected areas concept paper, which will be the main document for the proper planning and implementation of protected area policies and will form the basis for the revision of protected area system legislation. In addition, the department was actively involved in the process of approving management plans. The process of assessing the management of protected areas has started and relevant research was conducted/ interviews in 8 protected areas administrations.

With the active involvement and coordination of the Department, in 2020 Parliament approved the protected landscapes of Aragvi and Truso. Dozens of working meetings were held with Dusheti Municipality to establish a protected landscape in practice, with the Czech development agency and the office of the State representative in the Mtskheta-Mtianeti Region

Biodiversity Monitoring System

In 2020, the biodiversity monitoring system and relevant indicators were developed and refined; This process includes assessing the quality and quantity of protected areas, species status, agriculture, hunting-fishing and forestry. By the end of 2020, fact sheets have been prepared for all indicators, with a final report on several indicators ready for publication. In 2020, an action plan for the development of the biodiversity monitoring system for 2021 was prepared.

Biodiversity Division

Georgian emerald network and implementation of the Berne convention

The main mechanism for the implementation of the Berne Convention is the establishment of an emerald network in the countries. At this stage, 65 emerald areas have been identified in Georgia, 46 of them have already been approved, 4 areas are candidates and 15 are proposed. In 2020, the following actions were taken by the Department of Biodiversity and Forestry to develop the Emerald Network

- In 2020, the delineation of 6 freshwater habitats began, species conservation scientific center Nakresi is working on the draft in western Georgia, and the Department of Biodiversity and Forestry is conducting habitat research in eastern Georgia.
- 7 new areas were selected for inclusion in the emerald network (Tbilisi Otter Island (GE0000048), with an area of 12.68 ha; Kobuleti (Kobuleti - GE0000060), with an area of 782.7 ha; Samukhi - (Samukhi - GE0000061), with an area of:

24277.4 ha; Jandari Lake (Jandari Lake - GE0000062), with an area of 4319.5 ha; Black Mountain (Shavi Mta - GE0000063), with an area of 13 hectares; Babaneuri (Babaneuri - GE0000064), area: 833.62 ha; Letsurtsume Cave (Letsurtsume Cave - GE0000065), area: 0.1 ha;) and submitted to the secretariat of the berne convention.

- Correction of boundaries for 12 proposed areas has been completed. Only 8 of them needed to adjust the borders. Information on the boundaries of the renewed territories was sent to the Secretariat of the Berne Convention for consideration, 4 out of 12 territories were included in the list of officially nominated candidate territories, while 8 territories remained as proposed.
- Management plans were prepared with the assistance of the EU for 3 Emerald Compensation Areas (Svaneti-Racha; Racha-Lechkumi and Samegrelo 2). 6 management plans were prepared from the state budget (Svaneti 1; Svaneti2; Racha 1; Racha 2; Racha 3; Racha 4) for the emerald areas that are not located within the areas under the management of LEPL protected areas.

Wetlands of international importance

19Since 1996, Georgia joined the International Importance, especially as Waterfowl Habitat Protection (Ramsar) Convention. With the ratification of the convention, Georgia submitted two areas of wetland of international importance - the Spanish peatlands and the wetlands of Central Kolkheti, which coincide with the borders of the Kolkheti Protected Areas. The following actions were taken for the implementation of the Ramsar Convention in 2020:

- Updated the database of Spanish peatlands (which coincides with the protected areas of Kobuleti) in the existing Ramsar area.
- Based on the nomination of Georgia, the Ramsar Convention included the Bugdasheni and Madatapa Lakes in the list of wetlands of international importance;
- Relevant works are underway to add Chorokhi Delta, Khanchal Lake and Rioni Delta to the list of wetlands of international importance; Databases of Chorokhi Delta and Khanchal Lake have already been prepared. The borders of the Chorokhi Delta are being agreed with the Government of the autonomous republic of Adjara.
- At the initiative and coordination of the Department of Biodiversity and Forestry, the Agency of Protected Areas and the Protected Areas Development Fund have begun updating the already approved Ramsar Area (Central Kolkheti Peatlands) database, which was completed in January 2021.

Mobilizing financial resources for biodiversity

Within the framework of the Biodiversity Financing Initiative (BIOFIN), actions related to the Biodiversity Financing Plan and resource mobilization were implemented, including:

- A study was conducted to update the fees of licensed plant species (Tetraflower, Kochivarda, Sochi cone) to renew fees;
- 10 project concepts have been developed that respond to the needs of Georgia in the field of biodiversity and forestry.

Project concepts will be presented at a meeting with partners on biodiversity, forestry and agriculture.

In addition, activities of 2021-2023 were planned within the framework of the project, for the implementation of which additional financial support was received.

The department also participated in the preparation of a global survey on biodiversity mainstreaming as part of the initiative.

Introduction of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Based on a 2019 study, Cyclamen coum was developed for sustainable use by Cyclamen coumers for export under the Sochi cone and in the CITES Convention on Endangered Species of Endangered Species of Wild Fauna and Flora (CITES). Updated license terms.

Legislative changes have been prepared to reflect the decisions of the Conference of the Parties into national law in 2019, including on trade in plants grown on privately owned land.

The Department participates in 11 standing working groups set up within the standing committee on plants and animals, including e-permits, capacity building, and cattle breeding. He also chairs the standing committee on strategic vision as an alternate member of the standing Committee. The purpose of the working groups is to implement the decisions taken by the conference of the Parties to the convention, including the drafting of amendments to the convention resolutions and various "guidelines".

A post-2020 global biodiversity strategy

The department participates in the convention on biological diversity (CBD), In the process of developing a global biodiversity strategy after 2020. In addition, as a member of the bureau of the conference of the parties to the convention, it coordinates the work of central and eastern European countries during the period of interest between the conferences of the parties.

Adjust their number when wild animals attack

Prepared and approved by the Government of Georgia on September 10, 2020, Resolution N574 "Rule on the regulation of wildlife", which will simplify and make more effective in the implementation of wildlife attacks by municipalities.

Developed by the Government of Georgia on September 10, 2020 on the basis of Resolution N574 And on October 7, 2020, the Order N2-904 of the Minister of environment protection and agriculture of Georgia was issued, which established the 2020-2021 budget, list of wildlife species, the number of which can be regulated by municipalities without the prior agreement of the ministry of environment and agriculture of Georgia.

Introduce a sustainable hunting system

Work was underway to refine the working version of the draft law of Georgia on hunting. Active involvement of the department in the meetings held for this purpose was ensured. Remarks, comments and opinions on the draft law on hunting were prepared. Remarks, comments and opinions were discussed with interested structural units and individuals.

Regulating the legal framework governing fishing

The department planned to develop a national concept for fishing, for which preparatory work was carried out, in particular, the search, processing and analysis of relevant data and information. Opinions were prepared on the working version of the draft law of Georgia on Aquaculture. Following the adoption of the law, remarks and comments were prepared on the by-laws deriving from it. To study the spatial distribution of Black Sea species and populations globally to ensure sustainable use across the Black Sea in collaboration with the Regional Fisheries Management Organization (FAO / GFCM) and the Black Sea Countries, the Department of Biodiversity and Forestry has participated in the BlackSea4 across the sea, coordinated by the Department, at the national level, the project was implemented by the Department of Fisheries, aquaculture and aquatic biodiversity of the National Environment Agency LEPL in the territorial waters of the Black Sea, Georgia. An interim report on the Rapana population in the Georgian Black Sea territorial waters has been developed and the data obtained are being integrated into a common Black Sea database for global analysis and development of future actions.

Participate in a marketing review project developed by GFCM in the aquaculture sector

The department of biodiversity and forestry participated in the collection and systematization of all available data for the GFCM aquaculture market observatory project.

Based on the analysis of the demand for aquaculture products in the Georgian aquaculture sector, the ratio of local production, imports and exports, the national potential for the development of the sector will be determined GFCM experts, in collaboration with Georgian experts, will develop recommendations for the sustainable development of the aquaculture sector based on the data provided. In addition, based on these data, EUROFISH will publish country profiles of Europe, where for the first time will be the data of Georgia.

Collaboration with GFCM in developing a project application for "Black Sea Fisheries and Ecosystem Management" with GEF support

With the active cooperation of the Department and on the basis of pre-defined national priorities in the field of fisheries, GFCM developed a project application, on the basis of which the GEF-funded project "Development of the Black Sea Fisheries and Ecosystem Management" started in 2021 to strengthen Georgia, Ukraine and Turkey.

Georgian Law on Biodiversity

Dozens of discussions and consultations were held in 2020 to improve the biodiversity bill, and a note sheet was prepared. An explanatory note to the bill and a package of documents required for submission to the government and parliament were prepared. Frequently asked information booklets on emerald territory management and the New Forest Code have been prepared and published.

LEGISLATIVE ACTIVITY

In 2020, in order to improve the regulatory framework for the field of environmental protection and agriculture, the following was prepared:

- 89 draft laws of Georgia, 50 adopted;
- Draft Resolution 177 of the Government of Georgia, adopted 98;
- 272 draft ordinances of the Government of Georgia, 263 adopted;
- 30 by-laws of the minister of environment protection and agriculture of Georgia (all adopted);
- 217 Individual administrative-Legal acts of the minister of environment protection and agriculture of Georgia (all adopted).



Social Support

- Employees of the Ministry of Environment and Agriculture and its affiliated agencies contribute monthly to the Solidarity Fund, established by the Government decree in 2014 to help children with severe disabilities and their families;
- The Ministry of Environment and Agriculture is actively cooperating with the municipal blood transfusion station. Employees of the Ministry and agencies within the system of the Ministry are involved in the action of selfless blood donation.



Ministry of Environmental Protection
and Agriculture

ANNUAL REPORT
2020