



STATE AUDIT OFFICE OF GEORGIA

The results of the Performance Audit on the management (prevention and preparedness) of the Forest Fires

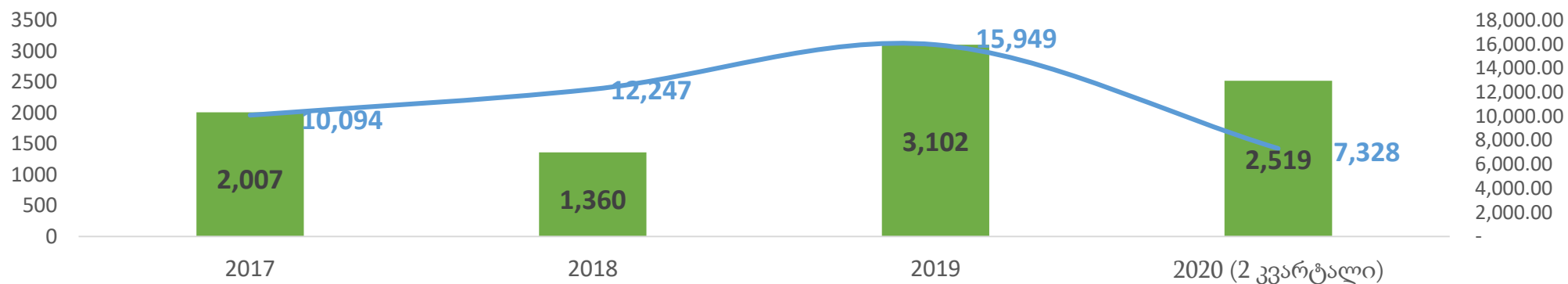


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Audit Motivation

The number of forest fires in Georgia and the dynamics of areas covered by fire by year (Quantity and hectares of the territory)



Audit Motivation

- Forest fires occur annually and spread over tens and sometimes hundreds of hectares. For example, in the summer of 2017, Georgia was engulfed by large-scale fires. The fire in the Borjomi forest was especially important, in the elimination of the results, various countries supported. As a result of the fire, an area of up to 1000 hectares was burned and the ecosystem was damaged.
- A number of forest fires were also recorded in the summer of 2019.
- In 2015, UN member states agreed on the Sustainable Development Agenda document, which includes 17 goals and 169 tasks. In the document (SDG), the 13th goal "Actions against climate change" was defined. In the same document, the 15th goal is defined as "Protection, restoration and sustainable use of the earth's ecosystems, wise management of forests, which indicates the special importance of protecting the earth's ecosystems."
- In order to protect the population and the territory from emergency situations, a national strategic document for disaster risk reduction has been created in Georgia, which aims to establish a unified system of risk reduction.

Audit Scope

Main Question:

How effective are the measures planned and implemented for forest fire risk prevention and preparedness?

Sub-Questions:

- 1. How sufficient and efficient are the measures planned and implemented for forest fire risk prevention?*
- 2. To what extent does the current level of preparedness of relevant agencies ensure timely response and reduction of negative consequences of forest fires?*

Audit Scope

Audit covered the period of **2017-2019**. However, the information of the previous and current period was used for the trend analysis.

Auditees:

- *Ministry of Internal Affairs of Georgia – Emergency management service*
- *Ministry of Environment Protection and Agriculture of Georgia;*
- *National Forestry Agency of the Ministry of Environment and Agriculture;*
- *Protected Areas Agency of the Ministry of Environment and Agriculture of Georgia;*
- *Department of Environmental Supervision of the Ministry of Environment and Natural Resources Protection.*

Shortcomings of fire prevention measures

Deficiencies in forest management plans and fire prevention measures

Protected Areas Agency

- The agency manages 20 territorial administrations, of which 14 are managed by a management plan, which should be evaluated positively.

National Forestry Agency

- There are 42 forest units, under the management of the agency, in 6 cases forest management plans have already been developed and completed, plans for 4 districts are being drawn up.
- Accordingly, there is no developed plan **for 32 districts (76% – 1,411,785 ha)**, which is a significant shortcoming.

As a result, the information on the forest fund is incomplete, the fire hazard classes are not identified, the necessary number of fire fighting equipment and other important issues are also undefined.

Shortcomings of fire prevention measures

Deficiencies in forest management plans and fire prevention measures

- During 2017-2018, the forestry agency did not rehabilitate fire protection roads and arrange mineralized strips along with the flammable, fire-prone forest missives’.
- The standards and criteria for the arrangement of fire-fighting reservoirs, helipads, mineralized strips and fire-fighting paths have not been established – This should be developed and approved in active cooperation with all interested agencies, especially the emergency services.

Shortcomings of fire prevention measures

Shortcomings of the existing model of physical forest protection

Since 2019, the position of forest guard in the Forestry Agency has been abolished, and the number of employees of the Department of Forestry Supervision has increased at its expense. After the reduction of "Forest Guards". (304 staff units).

In the same period, the prevention, detection and suppression of the facts of illegal use of natural resources was one of the main functions of the Department of Environmental Supervision, however, they acted on the roads and highways, not directly in the forest territories and checked vehicles loaded with the forest resources (timber).

As part of their activities in the Forestry Agency, the forest guards, on the one hand, detected illegal logging, which was also the prevention of fires from waste, and on the other hand, they extinguished small fires on the spot.

After the reorganization, there should have been a logical increase in the violations detected by the supervision department in the field of illegal forest extraction and environmental violations, however, compared to previous years, the mentioned ones have significantly decreased.

	2017	2018	2019
Violations detected by Forestry Agency	2,186	1,344	399
Violations detected Enviromental Supervision Department	982	705	1,444
Sum	3,168	2,049	1,843

Therefore, for the prevention of fires, the abolition of the important function of the forest guard in the Forestry Agency did not ensure the reduction of the facts of illegal logging, and in the Forestry Agency the necessary human resources for fire prevention measures has been significantly decreased.

Shortcomings of fire prevention measures

Unequal distribution of primary fire fighting inventory

The specific type of fire-fighting inventory is unevenly distributed both by fire-prone regions and forest areas.

For example, in **Guria**, where the risk of forest fires is relatively low, there are 46 fire-extinguishing backpacks distributed on 85,456 hectares of forest area, and in **Kakheti**, which is characterized by a higher risk, 10 units are represented on 288,295 hectares.

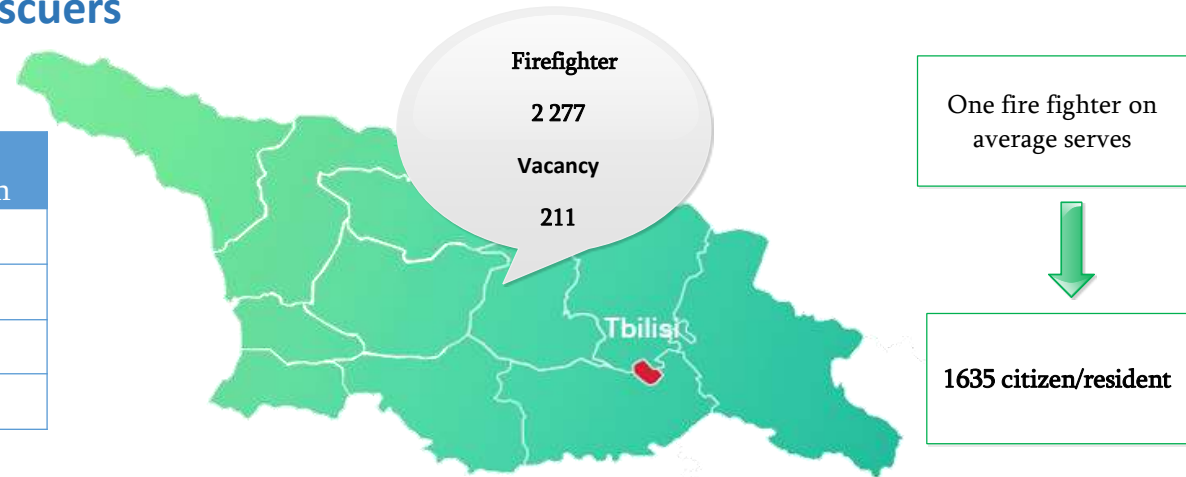
The main cause of this shortcoming is the fact that the appropriate standards and criteria for inventory distribution have not been developed.

Shortcomings of forest fire preparedness measures

Disadvantages of distribution of firemen and rescuers

Number of firefighters by country

Country	Fire Fighter Quantity	Fire fighter/population
Georgia	2,077	1,635
Austria	350,000	25
Germany	1,300.000	63
Poland	530,000	71



- ❑ In addition to the fact that firefighters are unevenly distributed by population, in some regions where the number of incidents are similar, the distribution of firefighters is uneven;
- ❑ Only 20% of firefighters have completed a complete training course.

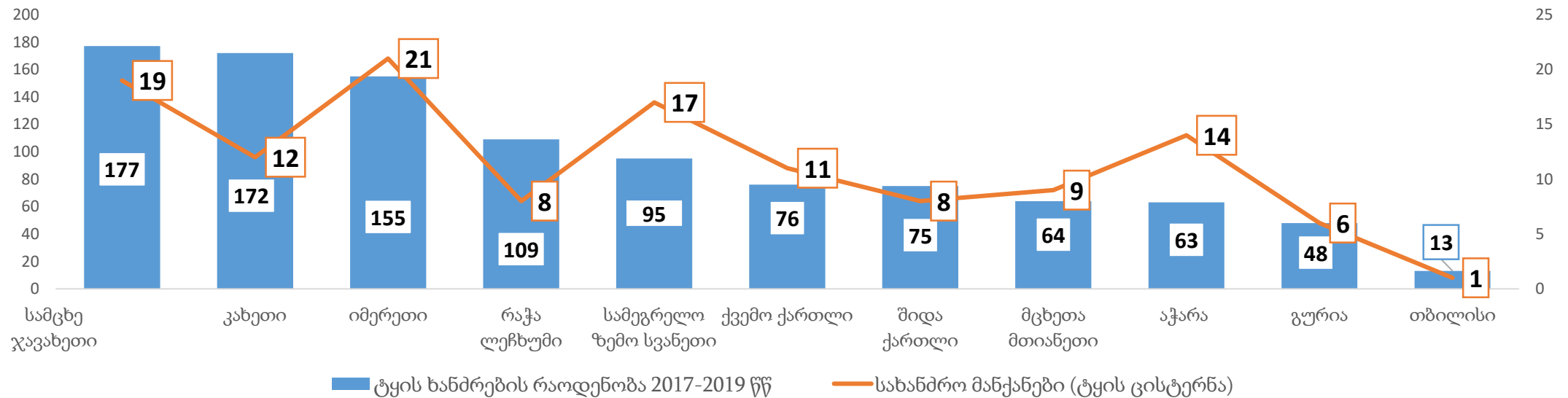
2 important directions of solving the quantitative problem and productive distribution of firefighters:

- ✓ Effective implementation of the volunteer system, which at the same time represents an economical solution of the problem.
- ✓ Optimal distribution of existing resources: no relevant criteria have been developed according to which (for example, population size, density) optimal distribution of fire-rescuers should be carried out.

Shortcomings of forest fire preparedness measures

Deficiencies in the territorial distribution of fire vehicles

The criteria for the distribution of fire engines have not been officially approved. Accordingly, as can be seen from the diagram, cars are unevenly distributed by region:



Shortcomings of forest fire preparedness measures

One of the challenges of fire preparedness is the lack of aviation capabilities.

The Emergency Situations Management Service of Georgia does not have aviation facilities. According to the action plan of 2019-2023, the order of the service provided for the purchase and deployment of 2 helicopters (East-West) in permanent readiness mode. The financing of the mentioned project is not included in the budget.

Shortcomings in Legislation

- ❑ Despite significant changes in the legislation, the National Civil Security Plan approved in 2015 has not been updated. A number of normative acts are acceptable for the implementation of preventive measures.
- ❑ The challenge is the lenient punishment (administrative sanction -200 GEL) for causing forest fires.

THANK YOU!

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