



STATE AUDIT OFFICE OF GEORGIA

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



Disasters arise in many forms, And these disasters can result from human actions or be caused by natural phenomena



By the human factor

- Transport, Aviation, Cars, etc
- Fires, Explosions
- Accidents with release of radioactive substances
- Hydrodynamic accidents with the destructive wave of dams.



By natural phenomena

- Geophysical event - Earthquake
- Geological - Landslide, Flood, Erosion and others
- Meteorological - Storm, Drought, Hail
- Hydrological - Flood
- Natural Fires - Forest and field fires
- Diseases contagious to humans

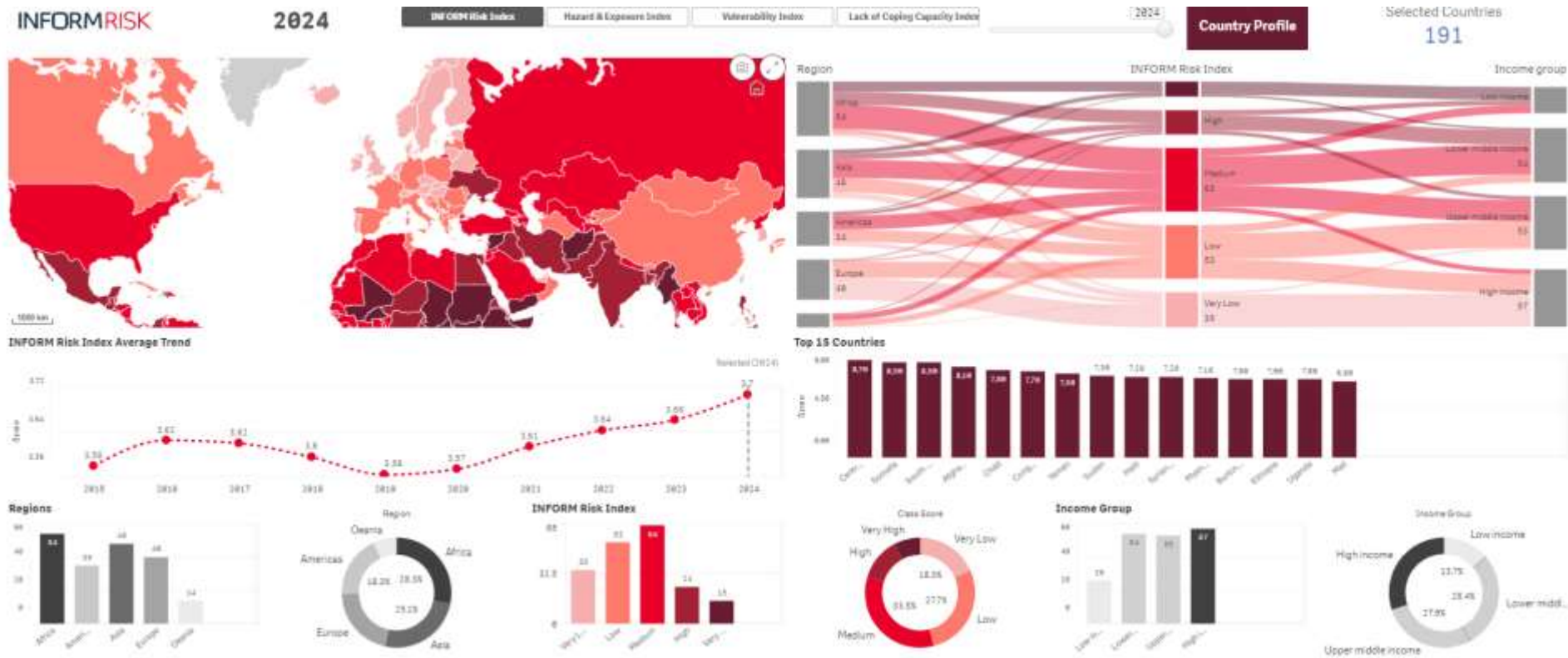
Audit motivation

Flood emergency management is crucial for ensuring civil safety. The prevention of natural disaster risks stands as one of the urgent tasks facing the global community.

the uncontrolled human impact on the environment has significantly contributed to the activation of dangerous and irreversible processes, accelerating global climate change, particularly global warming. Consequently, Earth's temperature increases, changing the pattern of yearly rainfall and leading to a significant rise in sea levels. These changes are contributing to the increased frequency of natural disasters.



In addition, the global risk management index (INFORM) was developed in cooperation with the world's authoritative international organizations (UNDP, World Health Organization, UNICEF, etc.), according to which the risk of natural disasters in Georgia is higher than average.



Risk Index for Georgia 2024

Georgia - Risk Class: Medium

COUNTRY PROFILE 2024 - SCORES

Country
Georgia

SCORES

TRENDS

PEERS

WB Income Group: Upper middle income
UN Region: Asia



Rank
91



Hazard & Exposure



Rank
85

Vulnerability



Rank
51

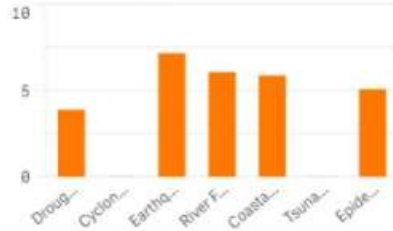
Lack of Coping Capacity



Rank
133

Hazard & Exposure

Natural



Socio-Economic



Vulnerability

Socio-Economic



Institutional



Lack of Coping Capacity

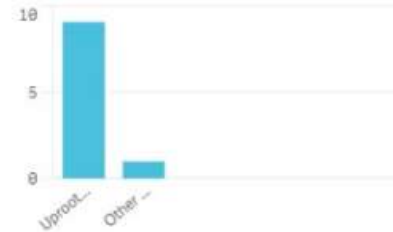
Institutional



Human



Vulnerable Groups



Infrastructure



On September 25, 2015, 193 UN member states agreed on the Sustainable Development Agenda, which includes 17 goals and 169 tasks. Goal 13, "Actions against climate change," prioritized disaster risk prevention. In response, the United Nations Office for Disaster Risk Reduction (UNISDR) was established, along with an international risk reduction strategy.

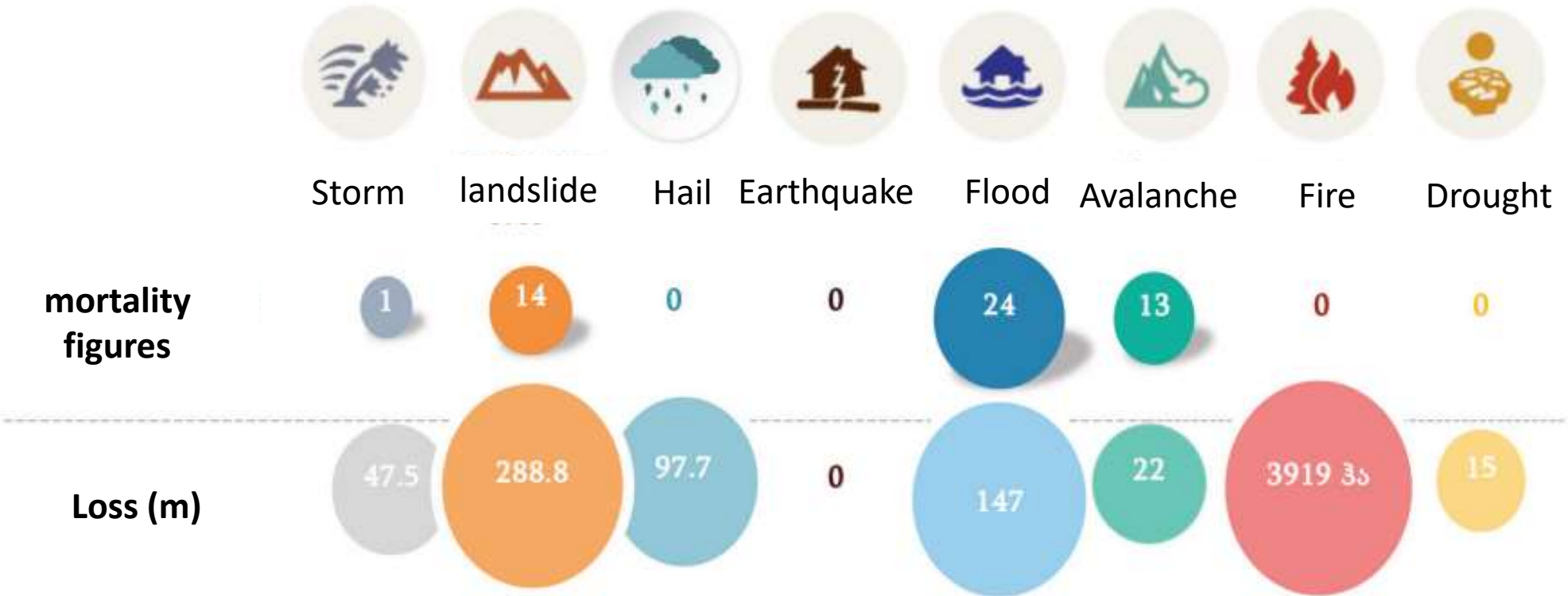
Georgia is known for its dense hydrographic network, with up to 26,000 rivers and ravines. Floods occur approximately every 5-6 years. Consequently, floods account for a significant portion, approximately 24%, of the total material damage caused by natural disasters.



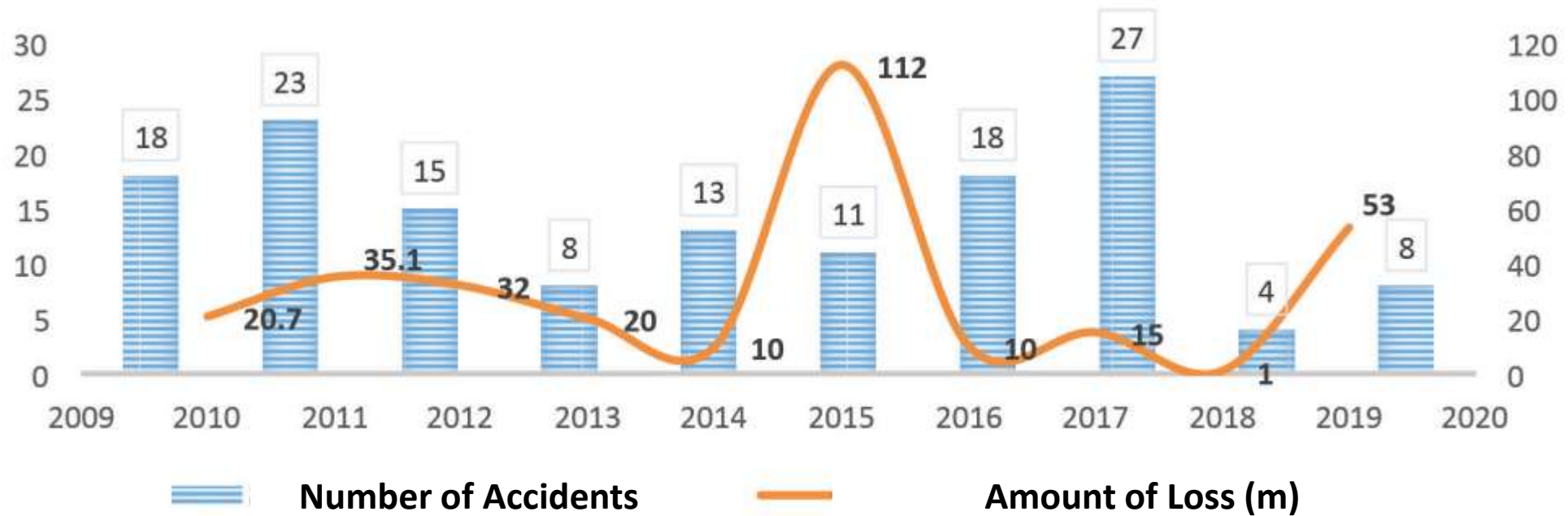
In the field of natural disaster management, investing in disaster risk reduction proves to be the most cost-effective approach. Well-implemented mitigation and prevention measures can substantially lessen the adverse effects of natural disasters. Additionally, prioritizing emergency preparedness is crucial in emergency management organization. As a result, the audit focused on evaluating prevention and preparedness measures



Due to its terrain and climatic conditions, Georgia is significantly vulnerable to various natural hazards.



Due to frequent floods recently, the amount of economic losses is increasing. The diagram below shows the damage caused by floods in 2010-2017 in millions of GEL. The significant deviation in 2015 is due to the large scale flood event in the Vere Valley



The **main question** of the audit is as follows:

How effective are the implemented and planned measures for the preventing and preparing of risk of floods?



To answer the main question, the following sub-questions were defined:

- How effective and efficient are the implemented and planned measures for flood risk prevention?
- How effective are the conducted preparedness activities for natural disasters in terms of ensuring timely response and reducing their negative impacts on the environment?

Scope & Criterias

Scope

The audit period for assessing flood emergency management effectiveness, covering prevention and preparedness, extends from January 1, 2017, to October 1, 2019.

SCOPE

The word "SCOPE" is written in a bold, dark blue, sans-serif font. The letter "O" is replaced by a magnifying glass icon. The lens of the magnifying glass is positioned over the "O" and contains a small, stylized illustration of a factory with two smokestacks emitting smoke, set against a light blue background.

Scope & Criterias

Criteria

During the audit, evaluation criteria included **legal acts** governing audit facility activities, alongside **local and international documents** delineating the primary directions of disaster risk reduction policy.

Among them:

- Georgia's Law on "Urban Safety."
- Georgia's National Strategy and its Action Plan for Disaster Risk Reduction for 2017-2020.

Based on methodologies and standards employed by international organizations and professional collaborations:

- Methodologies of the United Nations Development Programme (UNDP).
- The Sendai Framework for Disaster Risk Reduction (SFDRR).

The methodologies and strategies employed also consider practices and expert insights from various countries. As part of evaluating the effectiveness of the national urban safety system, criteria such as "resilient recovery" and international practices were utilized. Additionally, the audit process incorporated INTOSAI's guidance, particularly ISSAI 5510 and ISSAI 5540, which relate to disaster risk reduction.

Statistical Information

Issued Recommendations: 22

Implemented Recommendations: 5

Partially Implemented: 1

Not Implemented: 3

Ongoing: 13

Recommendation

①

②

③



One recommendation issued to two different entities counts as two.

Not Implemented

Findings:

- Georgia's threat assessment document, crucial for security planning, hasn't been updated since 2019, leaving only the 2015-2018 version approved. It should address threats from both natural and human factors.
- The national urban safety system lacks a complete legal framework and suffers from ineffective monitoring of strategy implementation.
- Municipalities lack a standardized methodology for calculating natural disaster losses, hindering effective planning and risking inefficient budget spending during disasters.
- Urbanization along riverbanks heightens flood risks, with unauthorized projects persisting despite Georgian laws. Few permit applications were received for coastal engineering protection zones, revealing gaps in response mechanisms and inadequate departmental responses to unauthorized constructions.

Not Implemented

Recommendation:

- Strengthen enforcement of legal frameworks and agency functions to align with the national risk reduction strategy's operational plan, emphasizing accountability.
- Update Georgia's national threat assessment document to include newly identified threats.
- Coordinate efforts by the National Security Council to:
 - Develop a unified electronic program for recording natural disasters.
 - Implement a methodology for calculating losses and assessing economic impact.
- Collaborate with the Ministry to set legislative standards for construction in flood-prone areas, incorporating international best practices.
- Coordinate discussions with municipalities to review permits in high-risk zones and prevent floods.

Ongoing

Findings:

- Municipalities lack approved risk management and emergency plans, leading to low preparedness levels.
- Georgia's first Disaster Risk Reduction National Strategy for 2017-2020 lacks detail and improvement, with only 16% of measures implemented.
- The audit revealed that the risk reduction strategy overlooks crucial forest maintenance for flood prevention, leading to increased disaster risks due to illegal forest cutting.



Ongoing

Recommendation:

- Emergency management services should promptly review relevant legislative acts to enhance preventive measures.
- Local governments must improve emergency response planning through additional training sessions.
- Oversight mechanisms for municipality emergency plans ensure compliance with standards.
- Updating the strategy and action plan is essential for effective activity, including flood response mechanisms.
- Priority should be given to developing and implementing preparedness measures to minimize flood damage.

Implemented/Partially implemented

Finding

As a result of the audit, specific facts were revealed when the monitoring carried out by one of the agencies revealed a problem, however, due to the lack of a standard for the exchange of relevant information, other agencies could not provide timely response to the threat.

Recommendation

The Ministry should ensure the use of studies, conclusions and reports carried out by various agencies of the system in the process of activity planning.

Action Taken

During event planning, there is active communication between agencies, as a result of which the information available to them is exchanged, as a result planning is based on more accurate information.

Finding

Modern technologies - digital maps, SMS messages - are not used for early warning systems of the population. By determining the responsible agency and timely completion of the started activities, it is possible to introduce modern technologies, which will ultimately ensure an increase in preparedness for floods.



Recommendation

- in order to increase the effectiveness of the existing system of early notification of the population, to use modern technologies (SMS messages);
- The agencies need to collaborate on creating digital maps and work with the Emergency Situations Management Service to map disaster risks effectively.

Action Taken

- Since 2023, an early notification system has been activated, which involves sending SMS alerts to the population about weather conditions and potential natural events, such as significant weather changes and more.
- Work on digital maps is ongoing; government agencies have already developed maps for several regions, but for now, they are mostly drafts and have not been published or utilized



Finding

The Emergency Situations Management Service actively cooperates with international and non-governmental organizations in the direction of raising the awareness and awareness of the population, various products are created - video lessons, mobile application - however, they are unpopular and do not achieve the final goal. Current methods of delivering awareness raising activities to consumers are insufficient.

Recommendation

To enhance public awareness, the Ministry should devise targeted awareness plans and methods. Evaluating planned events is crucial, as is promoting existing products like video tutorials and mobile apps for greater productivity.

Action Taken

The information campaign includes:

- advertisements on television,
- videos on social networks,
- Teachings and lectures in schools.

Finding

The audit found that strategic documents overlook forest maintenance and restoration, particularly in floodplain areas, crucial for flood prevention. Illegal forest cutting in designated zones heightens disaster risks, but Ministry monitoring falls short in detecting and responding to these issues.



Recommendation

- In order to perfect flood prevention measures, it is important that strategic documents include measures to restore forest cover in river valleys and to give special importance to this issue considering the existing risks.
- In order to prevent floods, to strengthen the monitoring of deforestation in the coastal areas of rivers.

Action Taken

Forest cutting monitoring has been enhanced with an increase in both the frequency of monitoring and the number of employees dedicated to this task.

Future Plans

Ongoing audits

Biodiversity protection measures

Performance audit

The purpose of the audit is to assess the effectiveness of the country's biological diversity and environmental care program management measures, to identify deficiencies in the processes, and to issue appropriate recommendations.

Collection, analysis, and utilization of meteorological, hydrological, and geological data

Performance audit

The purpose of the audit is to examine the implementation of the goals outlined in the "Sustainable Development Goals (SDGs) National Document" in order to assess progress towards those goals. Specifically, this includes the progress of SDG 13, which addresses issues related to climate action.

THANK YOU!

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