



EUROSAI

Working Group on the Audit of Funds
Allocated to Disasters and Catastrophes



The Accounting Chamber
Supreme Audit Institution of Ukraine

EUROSAI WG AFADC DIGEST

SAIs United Against Disasters



№1 2025

Special Electronic Digest of the EUROSAl Working Group on the Audit of Funds Allocated to Disasters and Catastrophes (EUROSAl WG AFADC)

The purpose of the Digest is to raise awareness and enhance the professional competence of auditors, promote the exchange of best practices and experiences, ensure transparency and accountability in the use of funds, and support the development of effective policies and strategies for managing resources allocated to disaster prevention and response. The Digest also aims to inform readers about the activities of the EUROSAl Working Group on the Audit of Funds Allocated to Disasters and Catastrophes.

The Editorial Board invites all interested parties to submit their articles, reports, and features. These materials can be sent to the Secretariat of the EUROSAl WG AFADC at:

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The authors bear full responsibility for the content of the articles and materials published in the electronic Digest. The views and opinions expressed therein do not necessarily reflect the official position or policy of the EUROSAl Working Group on the Audit of Funds Allocated to Disasters and Catastrophes.

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EDITOR'S NOTE

Olha PISHCHANSKA —
*Chairwoman of the Accounting Chamber,
Chair of the EUROSAI Working Group on the Audit
of Funds Allocated
to Disasters and Catastrophes*



Dear Colleagues and Readers,

Welcome to the first Special Electronic Digest of the EUROSAI Working Group on the Audit of Funds Allocated to Disasters and Catastrophes!

We are pleased to present to you a platform for sharing knowledge, experience, and best practices in the field of auditing funds allocated to disaster prevention and response. This journal has been created to enhance auditors' awareness and professional competence, promote transparency and accountability in the use of resources, and support the development of effective policies and strategies.

We would especially like to emphasize the importance of joint action by Supreme Audit Institutions (SAIs) in this area. Cooperation and exchange of experience between our institutions are key elements for successful prevention and effective response to disasters. Only together can we create a resilient risk management system that ensures

the safety of our citizens and minimizes damage from natural disasters and other emergencies.

We sincerely thank the authors who have contributed articles to this issue. Your efforts and expert knowledge are invaluable to all of us. SAIs play a vital role in the field of disaster risk reduction and response, and your contributions help enhance the efficiency and effectiveness of these efforts. Thanks to your work, we are able to share best practices, new ideas, and methodologies that will strengthen auditing activities in this important area.

We are confident that the materials presented in this issue will serve as a valuable source of information and inspire further improvements in audit practices.

We wish you enjoyable reading and every success in applying the knowledge gained to your work!



EUROSAI

Working Group on the Audit of Funds
Allocated to Disasters and Catastrophes



GOVERNMENT PREPAREDNESS FOR DISASTERS — WHY DOES IT MATTER?

*Secretariat of the EUROSAI Working Group
on the Audit of Funds Allocated to Disasters and Catastrophes*

In today's world, where the number of natural and man-made disasters is steadily increasing, the issue of government preparedness for emergencies has become critically important. According to forecasts by the United Nations Office for Disaster Risk Reduction¹, the number of disasters worldwide may increase by approximately 40 % by 2030. In

this context, the role of Supreme Audit Institutions (SAIs) becomes even more significant, as they are responsible for assessing the effectiveness and adequacy of programs and procedures aimed at disaster prevention and response.

First and foremost, government preparedness for disasters is directly linked to the protection of citizens' lives and safety. Natural disasters, industrial accidents, or other emergencies can result in loss of life and injuries. It is through the government's

¹ Official website of the UN Office for Disaster Risk Reduction, UNDRR [Electronic resource]. Available at: <https://www.undrr.org/>

ability to respond quickly and take effective action that many lives can be saved.

In addition, disasters can cause damage to infrastructure and result in significant material and economic losses for a country. Government preparedness involves planning and implementing measures to protect property, infrastructure, and the economy from potential threats.

A major concern is the fact that the recorded impact of disaster-related losses is significantly lower than the actual losses incurred as a result of the disaster.

According to the UN Office for Disaster Risk Reduction (UNDRR)², estimated insured losses from natural disasters amount to a staggering USD120 billion — but this is just the tip of the iceberg. The total losses from natural disasters, including those not covered by insurance, reached USD270 billion in 2022. In its 2022 natural disaster loss assessment, Munich Re reported that Hurricane Ian was the costliest single event, resulting in total losses of USD100 billion in the United States, of which USD60 billion was insured.

Australia experienced over USD6.6 billion in losses due to flooding in February and March 2022, of which USD4 billion was insured. At the same time, winter storms in Europe caused USD4.3 billion in insured losses.

However, these figures are based solely on direct losses that are covered by insurance.

Disasters can also affect societal stability and public trust in government. If a government fails to respond effectively to emergencies, it can lead to public dissatisfaction and a loss of confidence in the authorities. Disaster preparedness is therefore a crucial factor in maintaining public trust.

² The invisible toll of disasters. [Electronic resource]. Available at: <https://www.undrr.org/explainer/the-invisible-toll-of-disasters-2022>

Equally important is international cooperation in disaster preparedness. Many disasters have a transnational nature, and working together with other countries and international organizations helps improve response efforts and rescue operations.

Adopted at the Third United Nations World Conference on Disaster Risk Reduction, held from 14 to 18 March 2015 in Sendai, Japan, the Sendai Framework³ provides the foundation for engaging the whole of society and public institutions in preventing and reducing disaster risks caused by both natural and man-made hazards, as well as related environmental, technological, and biological threats and risks.

The Sendai Framework states that in order to achieve its expected outcome, it is necessary to prevent the emergence of new disasters and reduce existing disaster risks through a series of actions by all public institutions within countries. These actions should aim to anticipate threats, reduce vulnerabilities to disasters, and enhance preparedness for effective response and post-disaster recovery.

The Framework affirms that states bear the primary responsibility for disaster risk reduction and emphasizes that all segments of society and all state institutions must be involved in disaster risk reduction efforts.

To achieve its outcome and goal, the Framework calls for targeted actions at the local, national, regional, and global levels, across different sectors and by various stakeholders, along four priority areas. One of these priorities is:

“Enhancing disaster preparedness for effective response and to ‘Build Back Better’ in recovery, rehabilitation, and reconstruction.”

You are all likely familiar with the INTOSAI Guidance 5330⁴ on Auditing of Disaster Management.

³ The Sendai Framework for Disaster Risk Reduction 2015–2030 [Electronic resource]. Available at: <https://www.undrr.org/implementing-sendai-framework>

⁴ INTOSAI Guidance 5330 [Electronic resource]. Available at: <https://www.issai.org/wp-content/uploads/2020/12/GUID-5330-English.pdf/>

According to the disaster management cycle, which outlines the phases before, during, and after a disaster, disaster preparedness falls under the “pre-disaster” phase.



According to the definition provided by the Open-ended Intergovernmental Expert Working Group on Indicators and Terminology Related to Disaster Risk Reduction⁵, as recommended in its December 2016 report, preparedness is:

“The knowledge and capacities developed by governments, response and recovery organizations, communities, and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent or current disaster events.”

⁵ Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction [Electronic resource]. Available at: <https://www.undrr.org/publication/report-open-ended-intergovernmental-expert-working-group-indicators-and-terminology>

Preparedness measures are carried out within the context of disaster risk management and are aimed at strengthening the capacities needed for effective emergency management of all types of disasters, as well as ensuring a structured transition from response to sustainable recovery efforts.

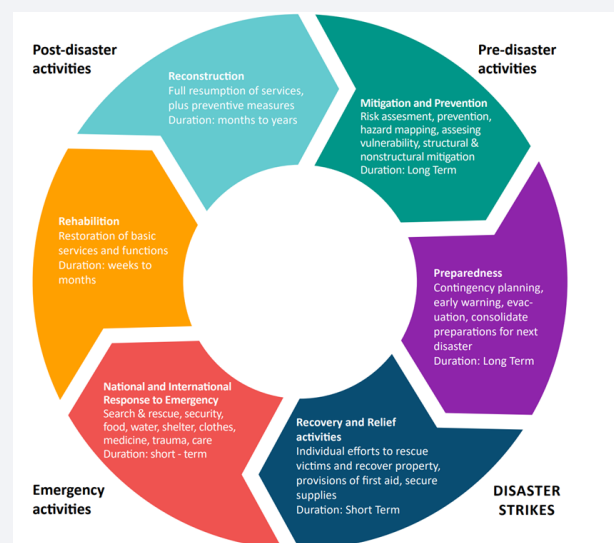
At the core of preparedness lies a thorough disaster risk analysis and effective integration with early warning systems.

Preparedness includes measures such as:

- contingency planning,
- stockpiling of equipment and material reserves,
- development of coordination mechanisms, evacuation procedures, and public information systems, including related training and field exercises.

These measures must be formally supported through institutional, legal, and budgetary capacities. The related term “readiness” refers to the ability to respond quickly and appropriately when needed.

Preparedness planning involves the anticipation of mechanisms that enable timely, effective, and appropriate responses to specific potential hazardous events that may pose a threat to society or the environment.



Source: GUID 5330

Let us now focus on two key elements of disaster preparedness.

The first is **disaster risk assessment**. According to recommended definitions, this is a qualitative or quantitative methodology used to determine the nature and extent of disaster risk by analyzing potential hazards and evaluating existing conditions of exposure and vulnerability that, combined, could potentially harm people and damage property, services, livelihoods, and the environment on which they depend.

Disaster risk assessment includes:

- identification of hazards;
- analysis of the technical characteristics of hazards, such as their location, intensity, frequency, and probability;
- analysis of exposure and vulnerability, including physical, social, environmental, economic parameters, and public health indicators;
- evaluation of the effectiveness of existing and alternative coping capacities in relation to likely risk scenarios.

The second is the **early warning system**⁶. As defined in international guidance, this is a comprehensive system for monitoring, forecasting, and predicting hazards, assessing disaster risks, establishing communication systems and processes, and ensuring preparedness. It enables individuals, communities, governments, businesses, and other stakeholders to take timely actions to reduce disaster risks ahead of hazardous events.

Effective “**end-to-end**” and “**people-centered**” early warning systems typically include four interrelated key elements:

1. **Risk knowledge** based on systematic data collection and disaster risk assessments;
2. **Detection, monitoring, analysis, and forecasting** of hazards and their possible consequences;

3. **Dissemination and communication** of authoritative, timely, accurate, and actionable alerts and information on likelihood and impact by an official source;

4. **Preparedness and response capabilities** at all levels to act on received warnings.



These four interrelated components must be coordinated both within sectors and across multiple levels, as well as between sectors, in order for the system to function effectively. The system should also include a feedback mechanism necessary for its continuous improvement. A failure in any component or a lack of coordination between them can disrupt the functioning of the entire system.

Early Warning Systems Save Lives



⁶ Early Warnings for All. [Electronic resource]. Available at: <https://wmo.int/site/early-warnings-all>

In March 2022, the UN Secretary-General launched the “Early Warnings for All” initiative, calling for every person on Earth to be protected by early warning systems by 2027. According to estimates by the UN Office for Disaster Risk Reduction (UNDRR), as of 2022, only half of the countries worldwide were covered by multi-hazard early warning systems. The numbers are even lower for developing countries: fewer than half of the least developed countries and only one-third of small island developing states had multi-hazard early warning systems in place.

Ensuring an effective warning system and educating the population on how to act during emergencies are key aspects of disaster preparedness.

The use of modern technologies — such as mobile apps, text messaging, social media, etc. — enhances the reach and reliability of alerts in the face of imminent threats or emergencies.

It is vital that every citizen knows how to respond to alerts and follows the instructions issued by emergency management authorities. This can help save lives and reduce risks.

Properly following recommendations and responding correctly to emergencies requires organization and discipline. It can significantly reduce material losses and protect human life and health.

Thus, government disaster preparedness is not just a process — it is an essential measure to ensure public safety, protect property, and maintain societal stability. We must constantly improve our

strategies, foster international cooperation, and always be ready for worst-case scenarios.

In this effort, Supreme Audit Institutions (SAIs) play a critical role in preparing governments and supporting national disaster readiness. Their role includes:

- assessing the government’s financial preparedness for emergencies;
- examining the risk management systems within government agencies responsible for emergency situations;
- analyzing the effectiveness of programs and actions aimed at disaster prevention and response.

It is especially important to determine whether effective early warning and communication systems are in place to enable authorities to inform the population quickly and efficiently in case of an emergency.

In this role, SAIs contribute to enhancing the efficiency of government measures in disaster preparedness and help ensure the safety and protection of the population during emergencies.

The better prepared the government and its agencies are for emergencies, the more effective their response and assistance to the population will be.

Government preparedness for disasters is essential for protecting citizens and property, and it represents a key aspect of national crisis management and security.

EUROSAI WORKING GROUP ON THE AUDIT OF FUNDS ALLOCATED TO DISASTERS AND CATASTROPHES — KEY ACHIEVEMENTS OVER 10 YEARS OF ACTIVITY

The EUROSAI Working Group on the Audit of Funds Allocated to Disasters and Catastrophes (hereinafter referred to as the Working Group) was established in 2014 by a resolution of the IX EUROSAI Congress.

MISSION — capacity building, coordination and consolidation of efforts of the European SAIs to help their governments in development of effective and efficient instruments for prevention and consequences elimination of disasters and catastrophes.

As of April 2025, the Working Group unites 17 Supreme Audit Institutions (SAIs), including 15 SAIs as members and 2 SAIs as observers. The Working Group is chaired by the Accounting Chamber of Ukraine.

MEMBERS OF THE WORKING GROUP

 **Ukraine**
(Chair of the Working Group)



The Working Group began its journey as an Initiative Group on Nuclear Safety Audit, which focused on auditing the use of funds (including international aid) allocated for the elimination of the consequences of the Chornobyl disaster.

The Chornobyl disaster is not only an environmental tragedy but also a story of the liquidators and local residents whose lives were forever changed by the accident at the nuclear power plant.

The radioactive cloud that formed after the explosion and fire affected not only the territories of present-day Ukraine, Belarus, and Russia but also many other countries, including Austria, Finland, Germany, Greece, Latvia, Lithuania, Norway, Romania, Slovenia and Sweden. The horrifying consequences of this event remind us of the urgent need to do everything possible to prevent similar disasters in the future.

In September 2005, 11 SAIs — members of EUROSAI WGEA supported the initiative of the Accounting Chamber of Ukraine to establish a permanent special sub-group on auditing the elimination of the consequences of natural and man-made disasters and radioactive waste within the EUROSAI WGEA.

In 2008, this sub-group was granted the status of a separate Special Group of EUROSAI on the Audit of Funds Allocated to Disasters and Catastrophes.

HISTORICAL BACKGROUND

**THE EUROSAI WORKING GROUP
ON THE AUDIT OF FUNDS ALLOCATED TO DISASTERS
AND CATASTROPHES WAS ESTABLISHED
IN JUNE 2014 AT THE IX EUROSAI CONGRESS**



Stages of creation of the Working Group:

**2006 –
2008**

Special Subgroup on the Audit of Natural, Man-caused Disasters Consequences and Radioactive Wastes Elimination of the EUROSAI Working Group on Environmental Auditing (WGEA)

**2008 –
2014**

EUROSAI Task Force on the Audit of Funds Allocated to Disasters and Catastrophes

**2014 –
2025...**

EUROSAI Working Group on the Audit of Funds Allocated to Disasters and Catastrophes

In 2013, the Accounting Chamber of Ukraine, as Chair of the Special Group, initiated the process of transforming the Special Group into a Working Group with the aim of practically implementing, at the regional level, the ISSAI 5500 series of standards on auditing disaster-related aid. These standards were developed by the INTOSAI Working Group on Accountability for and Audit of Disaster-related Aid and were approved at the XXI INTOSAI Congress (October 2013, Beijing, China).

At the IX EUROSAI Congress (2014, The Hague, Kingdom of the Netherlands), a decision was approved to establish a permanent Working Group under the leadership of the Accounting Chamber of Ukraine. The Secretariat of the Working Group operates on the basis of the Chair SAI. Russian and English were designated as the Working Group's languages, in accordance with EUROSAI's official languages.

In 2017, by a resolution of the X EUROSAI Congress, the Working Group's mandate was extended until 2020, and by the decision of the 51st EUROSAI Governing Board Meeting (held online on 3 June 2020), it was further extended until the XI EUROSAI Congress.

In 2021, the XI EUROSAI Congress approved the resolution extending the Working Group's mandate until 2024. In 2024, the EUROSAI Working Group continued fulfilling its mission: to promote the effective and transparent use of budgetary funds allocated for disaster prevention and response.

The XII EUROSAI Congress, held on 27 May 2024, approved the decision to further extend the Working Group's mandate until 2027.

**During its period of activity, the Working Group has carried out
five international coordinated audits**



INTERNATIONAL AUDIT ON WASTE MANAGEMENT AND UTILIZATION (2020)

PARTICIPANTS: Ukraine, Moldova, Serbia

RESULTS: inconsistencies/gaps and problems within the existing systems of household, industrial and hazardous waste management in the participating countries were identified, the failure of which will pose a threat to the environment and public health. It is recommended to intensify the efforts of governments for transition from a linear economy to a circular economy based on maximum waste recycling and to create an integrated waste management system in accordance with the existing EU waste management hierarchy.



INTERNATIONAL COORDINATED AUDIT “TRANSBOUNDARY MOVEMENTS OF WASTES IN THE LIGHT OF THE BASEL CONVENTION PROVISIONS” (2021)

PARTICIPANTS: Ukraine, Poland, Slovakia

RESULTS: the need to improve the existing system of control over international waste movement has been established, in particular, by:

- Introducing the necessary changes to the provisions of national legislation to define clearly the duties of the responsible authorities for the implementation of waste control, the scope and method of such control, as well as the procedure for interaction between these authorities;
- Providing border authorities with equipment that will enable accurate determination of the amount and type of waste being transported.



INTERNATIONAL COORDINATED AUDIT ON THE PREVENTION AND CONSEQUENCES ELIMINATION OF FLOODS (2020)

PARTICIPANTS: Ukraine, Georgia, Poland, Serbia, Turkey, European Court of Auditors

RESULTS: the need to finalize program documents, specify the developed policies, strengthen coordination between the authorized bodies and ensure proper compliance with the requirements of European and national legislation on the flood risk management system was determined. District river basin management bodies have been established, but comprehensive flood risk management in national and transnational river basins is not ensured. Measures aimed at flood protection were not implemented effectively, including due to untimely management decisions.



INTERNATIONAL COORDINATED AUDIT ON PROTECTION OF THE BUG RIVER CATCHMENT AREA FROM POLLUTION (FOLLOW-UP AUDIT) (2015–2017)

PARTICIPANTS: Poland, Ukraine, Belarus

RESULTS: the responsible authorities of the countries participating in the audit were identified within the framework of cross- border cooperation in the Western Bug River basin. A significant amount of regulatory and methodological documentation has been developed to improve water policy, develop international cooperation, and take measures to improve the ecological state of the basin’s waters. However, due to insufficient coordination, the duration of managerial decision- making, and ineffective cooperation between agencies, the recommendations made by the SAIs based on the results of the International Audit on Protection of the Bug River Catchment Area from Pollution completed in 2006 have not been fully implemented. These recommendations are still relevant.



PARALLEL AUDIT OF FOREST PROTECTION AGAINST FIRES (2024)

PARTICIPANTS: Georgia, Lithuania, Ukraine

RESULTS: Despite the existence of strategies and regulatory frameworks, significant shortcomings remain in the field of forest fire prevention and response. The main issues include insufficient coordination among government authorities, the absence of integrated forest monitoring systems, outdated equipment and resources of firefighting units, and the lack of clear emergency response plans. Most efforts are focused on responding to fires rather than on preventing them.

In addition, countries face limited use of modern technologies for fire monitoring and early detection, primarily due to a lack of funding and technical support. The human factor — including arson and careless handling of fire — remains the leading cause of fires.

Audit recommendations call for strengthening interagency cooperation, modernizing equipment, establishing effective risk management systems, and actively involving the public in preventive measures.



THE GROUP HAS DEVELOPED:

- ✓ A standard disaster audit matrix that serves as a basis for preparing audits within the Working Group
- ✓ An information database of audits conducted by the Members and Observers of the Working Group in the field of disasters and the list of audit questions
- ✓ Good practice recommendations for conducting audits in the field of prevention and consequences elimination of floods



PLANS FOR THE FUTURE

- ✓ Initiating and conducting international coordinated/parallel audits on the most relevant topics within the framework of the Working Group's activities
- ✓ Support for effective, innovative and relevant audits through promoting and facilitating professional cooperation among the members of the Working Group
- ✓ Expanding contacts and ensuring coordination of efforts of various EUROSAI and INTOSAI working bodies in the field of disaster prevention
- ✓ Promotion of the exchange of knowledge and the implementation of new approaches to conducting audits within the framework of the working group in response to modern challenges





EUROSAI

Working Group on the Audit of Funds
Allocated to Disasters and Catastrophes

PROFESSIONAL SKILLS AND BEST PRACTICES IN DISASTER AUDITING





Name of the SAI: Supreme Audit Institution of Albania

Dr. Arben Shehu — *Chairman of the Albanian Supreme Audit Institution*

THE OPINION OF THE HEAD OF THE SAI REGARDING THE IMPORTANCE OF AUDITS IN THE FIELD OF PREVENTION AND ELIMINATION OF CONSEQUENCES OF DISASTERS

We can't prevent natural disasters to happen, but we can be prepared to when they eventually happen. Proper preparation prevents poor performance after a natural disaster. With natural disasters it's a matter of when, not if, and when it comes to happen, the ability of a state to minimize its consequences it's directly related to the state's ability to be prepared beforehand for such an eventuality. Studies have shown that in many cases, proper preparation lowers considerably the financial bill to reconstruct and maintain after a natural disaster.

Such preparation is shared between the state structures, private sector and civil society. In this view, SAI-s play a fundamental role in monitoring the government's financial investments for the preparation of such an eventuality. This role ensures that the public finances are invested in the right places and transparently for the population and the Parliament to check them.

This preparation varies from country to country depending on its geographic position and the natural disasters that are more prone to affect it. In the case of Albania, earthquakes, floods and wildfires are the most common. According to ISSAI 5510, SAI-s have the duty to audit every government activity related to the preparation of the population, economy and the environment for the consequences of a possible natural disaster, in order to minimize the negative effects of such a disaster.

Brief information on the experience of the SAI in the field of disaster audits

The Department of Performance Audit in ALSAI has carried out 3 performance audits in the field of disasters.

The first audit was conducted in 2018 and focused on flooding and more specifically, on flood prevention, protection and preparedness.

The second audit was conducted in 2020 and focused on the management of the earthquake of November 2019 (51 people lost their life). The audit main objective was the evaluation of the policies and effectiveness of the responsible institutions for the overall management of the situation

An example of best practice in conducting an audit

Audit topic: Effectiveness of programs in managing the consequences of 2019 natural disaster

Description of the field of disaster audit, its challenges

On 26.11.2019, Albania was hit by a strong earthquake with a magnitude of 6.3 on the Richter scale, at a depth of 38 km. The epicenter of this earthquake was 22 km from Durrës and 30 km from Tirana. Most of the earthquakes recorded in our country, have occurred in this area, where the Euro-Asian Plate and the Adriatic Plate join. As a result of this earthquake, a total of 202,291 people were affected, of which 47,263 directly and 155,029 indirectly. The earthquake caused 51 deaths. Referring to the PDNA (Post Disaster Needs Assessments) which is the only document that has collected the estimates of the effects and damages caused by the November 2019 earthquake, the total amount of destruction in the 11 affected municipalities is estimated at approximately 985 million euro (121.1 billion ALL). Most of the damage was recorded in the housing sector (78.5%), followed by the manufacturing sector (8.5%) and the education sector (7.4%). Regarding ownership, 76% of them occurred in private properties and 23.5% in public properties.

The audit focused on the preparedness of the responsible institutions in cases of natural disasters, as the 2019 earthquake is, the response of the responsible institutions right after the earthquake, the planning to manage consequences, and finally, the rebuilding process together with the reconstruction programs and their respective sub-routines. The two main challenges during this audit were:

- The COVID-19 pandemic period when this audit was conducted;
- The lack of a National Disaster Risk Reduction Strategy and a General Reconstruction Program related to the planning of activities to cope with the "post-disaster" situation.

Applied approaches

- Review, analysis and evaluation of data collected during the study phase;
- Interviews and open questions with entities staff and stakeholders;
- Collecting and analyzing data from secondary sources;
- Quantitative and qualitative analysis of the data collected through questionnaires;
- Field observation of the situation;
- Consultation of literature and international auditing standards such as ISSAI 5510 and ISSAI 5520.

An example of the best lessons learned during the audit

One of the lessons learned at the end of his audit was that, in cases of natural disasters, the lack of a clear, specific, measurable legal framework, etc., makes it difficult to achieve measures and activities in terms of planning the rebuilding fund, collecting requests for funds, their distribution according to priority sectors, allocation of relevant budgets, inter-institutional coordination, etc.

The main results of the audit.

- The National Agency of Civil Protection has not drawn up and approved the appropriate policies in order to prevent, mitigate and prepare for the risks of natural disasters, which are defined in the civil protection legislation.
- The National Agency of Civil Protection has not put in place the solidarity fund for civil protection through an account in a second-level bank, referring to Law No. 45/2019 "On Civil Protection". This fund is used to deal with emergency situations and can be transferred to local self-government units, upon their request.
- The General Reconstruction Program, which was supposed to plan the necessary activities and measures with concrete timelines, was not drawn up and approved.
- The sole government portal, which was supposed to guarantee full transparency in terms of the use of funds for the reconstruction process, has not been designed and does not fulfill, all the obligations defined in the Normative Act, for dealing with the consequences of natural disasters.
- The funds allocated to the Tirana and Durrës municipalities were not made in full compliance with the PDNA (Post Disaster Needs Assessment) which is the only guiding document that has calculated damages according to specific sectors such as health, education, infrastructure, housing, etc.
- Cooperation and coordination between central and local institutions has not been fully effective in terms of information exchange, in-kind contributions, trainings for cases of natural disasters, etc.
- The municipalities of Tirana and Durrës have not sent data to the National Agency of Civil Protection regarding the assessments made in entities damaged by the 2019 earthquake.



Cour des comptes



Chambres régionales
& territoriales des comptes

Name of the SAI: **French SAI — Cour des comptes**

Paul Serre — Chair of the inter-jurisdictional joint panel on coastline management

COASTLINE MANAGEMENT IN TIMES OF CLIMATE CHANGE IN FRANCE

French regional chamber of accounts for Nouvelle-Aquitaine, May 2024

French financial courts have led in 2022 and 2023 a national audit on coastline management, which conclusions have been published in the 2024 Cour des Comptes's annual public report.

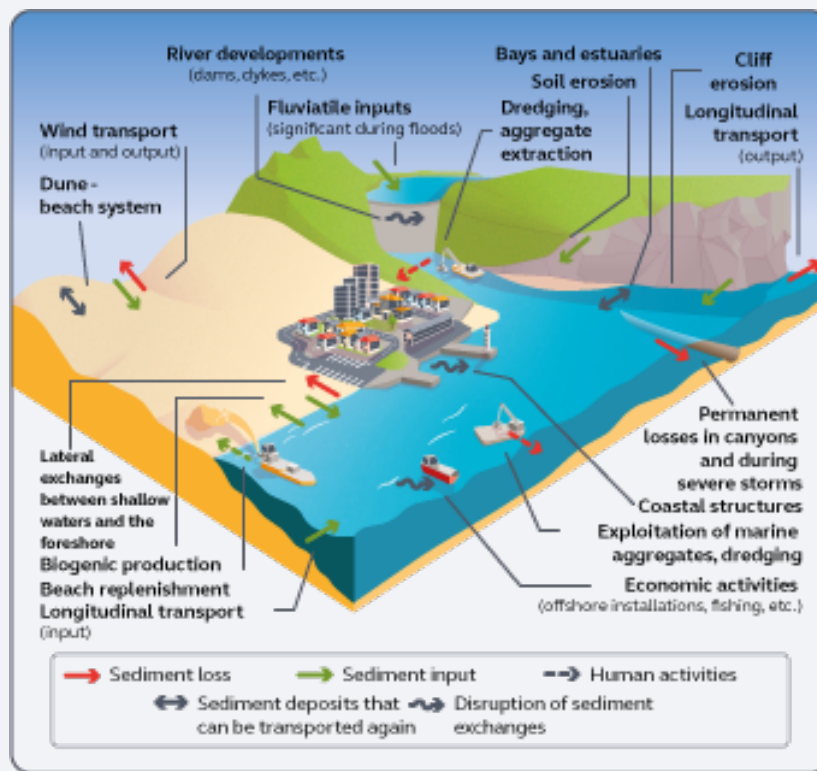
I. Background, purpose and issues of the survey

1. Background

The coastline, boundary between land and sea, advances (thanks to sediment inputs) or retreats (considering sediment losses). Its movements are the result of natural phenomena which have been going on for a long geological time and are generally gradual. As a result of climate change, they are being accelerated, in particular as sea level rises and extreme weather events multiply. Sea defence by means of structures — the historic method of intervention on the coastal fringe — can worsen these phenomena. As a consequence, a genuine effort to adapt is needed, in areas highly sought-after despite their vulnerability, as 10% of the population of mainland France are concentrated along the coastline, and even two to six times more in summer, and 20% of the coastline have been proved in retreat.

Erosion can increase the risk of coastal flooding, as it is the case when coastal retreat lowers the altitude of a dune or a cliff protecting the coastline. Even if both risks may be combined or interact sometimes, only coastal flooding is considered a major natural hazard, given its low probability of occurrence and potentially serious consequences for human life, while erosion is generally considered certain and predictable.

Sediment losses and inputs along the coastline



Source: Cerema

None of French financial courts had ever made audits or evaluations on the specific topic of coastal erosion, apart a Regional Chamber of Account (RCA)¹ which had analyzed spatial reconfiguration projects. In 2012, the French Cour des Comptes (CC) had published a report on the consequences of coastal flooding². In 2017, it had emphasized on the lack of the management of the fund for the prevention of major natural hazards, also known in France as the “Barnier fund” (repeated expansions, conditions of compensations, etc.)³. The same year, a RCA had carried out audits of intermunicipal authority for cooperation between local authorities and municipalities with urbanization and rising

natural risks, from which it drew up a regional summary report in 2017⁴.

French Government authorities have undertaken reforms in coastline management in recent decades. They have developed a national strategy for managing the coastline in 2012 and a law was passed in 2016⁵, creating a national mapping of coastal erosion and allowed regional plans for planning, sustainable development and regional equality (SRADDET) to include rules and objectives regarding coastline management. The main reform is led by the Law of August 22nd, 2021⁶, also known

¹ The RCA of Occitanie, about a spatial reconfiguration (RCA Occitanie, Coastline management and spatial reconfiguration of coastal fringe in the west coast of Vias, 2021).

² CC, Lessons from the 2010 floods on the Atlantic coast (Xynthia) and in the Var, 2012.

³ CC, The fund for the prevention of major natural hazards, 2017.

⁴ RCA Nouvelle-Aquitaine, Summary of a local thematic audit: “Aquitaine’s coastal communities facing the challenges of urbanization and rising natural risks”, 2017.

⁵ Law no. 2016-1087 of 8 August 2016 for the reconquest of biodiversity, nature and landscapes.

⁶ Law no. 2021-1104 of 22 August 2021 on combatting climate change and building resilience to its effects.

as the 'Climate and Resilience' law. It consecrated the national strategy in this field and the possibility to implement it locally. It built a new mechanism to encourage the integration of erosion risk into local authorities' planning policies and ease future spatial reconfiguration projects in coastal areas. It also improved information for buyers and tenants. These reforms did not address the financial aspects of this subject, although experts put forward proposals.

2. Purpose

A large number of stakeholders, both private and public, are legally competent in coastline management. Property owners are normally responsible for protecting their property from the sea, except when public intervention is justified, under a law dating from 1807 that is still in force. Public authorities take action at various levels such as:

- State (strategy, coastal risk prevention plans, legality, management of the public maritime domain, etc.) and its institutions (the Centre for studies on risks, the environment, mobility and urban planning — Cerema — and the French geological survey — BRGM — for risk expertise and mapping; the National Forest Office — ONF — for Atlantic coastal dunes; the Conservatoire of the coast on natural coastal areas);
- municipalities and groups of municipalities: urban planning, management of aquatic environments and flood prevention (GeMAPI), etc.;
- regions (knowledge, SRADDET, etc.) and departments (management of sensitive natural zones and coastal structures, etc.).

Sometimes, these authorities coordinate or pool their actions within dedicated structures (public interest grouping, joint associations, etc.). All contribute, to some extent, to the funding of this policy, with the European Union generally providing decisive support (European regional development fund, Life Programme, etc.).

A national survey was carried out into the response of the public authorities in terms of knowledge

of the phenomenon and adaptation to its effects, covering both current actions and those planned for the decades to come. The financial courts endeavour to assess the adequacy of the public authorities' response to coastal erosion in the context of climate change:

- by determining whether the risk is sufficiently known, mapped and integrated into planning policies, and whether the latter take sufficient account of climate change, in particular the foreseeable sea level rising, which greatly accelerates the kinetics of coastline recession;
- by expressing an opinion on the strategy implemented and the relevance of its orientations, scope and governance;
- by evaluating the success of the work carried out since 2011 and how the actions were financed.

The survey focused on mainland France, as a dedicated chapter in the Cour des Comptes's annual public report dealt with the specificity of overseas territories. It covered the Atlantic seaboard, the English Channel and the North Sea, via audits of the five RCAs concerned. A separate and broader survey, investigating coastal development and environmental issues in the Mediterranean, was in charge of this region. But the whole of France was covered through the national audits of the competent central administrations and institutions. The survey period covered years 2011 to present, in order to follow the national strategy implementation, even if most local audits focused on 2018 and beyond, that is to say when groups of municipalities started managing aquatic environments and flood prevention.

3. Issues

Coastline mobility management raises a number of scientific, administrative, financial and socio-economic issues influencing the ability of coastal areas to adapt to it, for instance:

- the distinction between submersion and erosion, largely motivated by the will to remove the latter from the scope of the risks covered by the fund for the prevention of major natural hazards;

- the uncertainty affecting the predictability of risk due to climate change, which can become an excuse for not taking action;
- the low level of local acceptance and the cost of the relocation of property at risk, fuelled in part by a strong belief in sea defence by means of structures;
- the absence, up to date, of a model for financing and technical support for actions to adapt to coastline retreat.

Publication of the report has coincided with the completion of governmental work to update the national strategy for managing the coastline and define a financing model for future spatial reconfiguration projects. It presents of a comprehensive assessment of the coastline management policy, including knowledge and strategy, whereas previous reports on this subject by other institutions were generally dedicated to preparing these projects. A complete and up-to-date risk map, integrated into urban planning and development documents to avoid increasing vulnerability to the phenomenon, and the formalization, on a relevant scale, of the actions to be taken in order to manage and anticipate it, are indeed prerequisites. Considering the simultaneous works on financing schemes for spatial restructuring and the conditions under which the survey was carried out, the report only drafted some ideas and principles for public support in this field.

II. Survey procedures and timetable

1. Procedures

The financial courts carried out audits of 45 local authorities⁷, 6 central administrations of the relevant ministries — ministry for ecological transition and territorial cohesion, ministry of the interior and overseas territories and ministry for the economy, finance and industrial and digital sovereignty — and the main State institutions implicated in this policy (Cerema, BRGM, ONF and the Conservatoire

of the coast). The report draws on international comparisons from the work of inspections in 2019 and the responses or work of several supreme audit institutions⁸.

2. Timetable

The work of the financial courts began on November 2022. Audits and hearings (State inspection units, national High Council on climate, coastal elected representatives, etc.) were carried out between January and June 2023. All local reports, deliberated by each RCA, were sent to the national team in charge of summarizing them before June 2023. The draft version of the report was available on July 2023. The Cour des Comptes has taken a final decision on the report, taking into account comments made during the consultation process, between September and October 2023, a few months before it released its annual public report.

III. Key messages issued in the report

1. Main lessons from the survey

The audit reveals a lack of commitment from local authorities to truly adapt to the retreat of the coastline, even if a positive dynamic rose since the enactment of the “Climate and Resilience” law. Three lessons enlighten this observation.

- **The retreat of the coastline: a phenomenon exacerbated by climate change with consequences that are insufficiently anticipated**

Knowledge of coastal erosion is still imperfect and should be improved so as the integration of climate change in risk assessment would be more reliable, but it is already a cause for concern. Improving this situation is complicated by the fact that several operators are involved in this area, but they are not always coordinated. The identification of the assets and activities affected by the retreat of the coastline and their economic estimates for 2050 are still very

⁷ 21 intermunicipal authorities for cooperation between local authorities, 16 municipalities, 6 joint associations, 1 region, 1 public interest grouping.

⁸ Canada, Spain, Italy, The Netherlands and United Kingdom.

patchy and need to be upgraded to be compared to the cost of their protection. The corresponding stakes are in the tens of billions of euros.

Currently, risk projections are not sufficiently integrated into urban planning and development policies. Many areas heavily affected by coastal erosion are still not covered by a coastal risk prevention plan, meaning that urban development can continue in areas at risk. In addition, coastal risk prevention plans covering such areas do not take account of the foreseeable rise in sea level and could therefore underestimate the risk. The 'Climate and Resilience' Law of August 22nd, 2021 created a new mechanism to encourage the integration of this risk into local authorities' planning policies, but it now needs to be ramped up with the full support of these local authorities. In this respect, the list published by the decrees of 29 April 2022 and 31 July 2023 only includes 253 municipalities, whereas 298 have been identified by government as being the most at risk.

▪ **Incomplete national and local preparation and adaptation strategies**

Facing this growing phenomenon, action strategies were formalised, first at national level from 2012, then at local level. These documents promote the reduction of vulnerability and sustainable adaptation to the retreat of the coastline, but their implementation is incomplete. The national strategy, which is currently being revised, cannot be evaluated. Few regions have implemented it, with a few rare exceptions, such as Normandy, Occitanie and Nouvelle-Aquitaine, the latter being notable for its broad, uniform coverage of local action plans.

The main reason for this lack of local structuring lies in the major difficulties of governance at local level, despite the fact that a large number of stakeholders, both private and public, are legally competent. As coastline management is not a mandatory part of the GeMAPI remit, it is not always dealt with in a coherent manner in terms of its scale and in

relation to the risk of coastal flooding. However, the intermunicipal level is the most appropriate.

▪ **Adapting rather than combatting is still a rare choice**

In addition to these difficulties, legal and financial obstacles arise considering the relocation of property at risk, as in other parts of the world. The 'Climate and Resilience' Law has removed some of the obstacles, by facilitating future spatial reconfiguration projects in coastal areas, but the low level of local acceptance and the cost of these projects are holding them back. It is hardly surprising, then, that the historic method of intervention — sea defence by means of structures — is still favoured, to the detriment of a genuine effort to adapt, despite being encouraged through experimentation. In particular, there are partnership development projects between government and local authorities in Normandy, Nouvelle Aquitaine and Occitanie.

In order to reduce the current uncertainties, and in addition to stronger local support for the tools of the 'Climate and Resilience' law and clear governance, it is important to create the conditions for long-term funding to manage the retreat of the coastline.

Expenditure on this policy, which is largely co-funded and still moderate, is sustainable today, but this will be different in the future, although it is not possible to quantify it exactly given the monitoring tools available. The financial needs to be covered by 2100 should be identified, particularly in terms of spatial reconfiguration, which only a few theoretical studies have calculated — over 20 years, between €22m for the relocation of a neighbourhood of 30 houses and €835m for the reconfiguration of a 3km seafront. The Court calls for a system of public funding for coastline management based on solidarity across coastal areas and on each local authority's own resources, consistent with the financial responsibility of private owners to protect their property from the sea.

2. Recommendations

The Cour des Comptes made the five following recommendations to the relevant ministries and local authorities:

- require all areas at high risk of coastline retreat to be risk-assessed, with this assessment enforceable against town planning authorisations and taking account of the foreseeable rise in sea level attributable to climate change;
- include objectives and indicators in the next national strategy for managing the coastline so that its implementation can be monitored and evaluated;
- make coastline management a compulsory GeMAPI mission carried out by municipal groupings;
- rigorously and uniformly monitor the current costs and funding of coastline management in order to identify future needs;
- set up a system for funding public management of the coastline, establishing financial solidarity between coastal areas and including a contribution to be made by each coastal local authority or grouping from its own resources.



Name of the SAI: **State Audit Office of Hungary**

Dr. Windisch László — President of the State Audit Office of Hungary

AUDIT OF THE FIRE PREVENTION TASKS OF DISASTER MANAGEMENT

Due to the emergence of dangerous situations, which directly threaten the safety of life and property, the environment, and economic security, the activities of the defense agencies come into the forefront of interest from time to time.

In 2023, in the context of a performance audit, the State Audit Office of Hungary audited the effectiveness of the information, fire protection authority and supervisory activities carried out in the field of fire prevention in the disaster management system — in order to protect life and property safety — for the period 2019–2022.

The audit consisted of three focus areas:

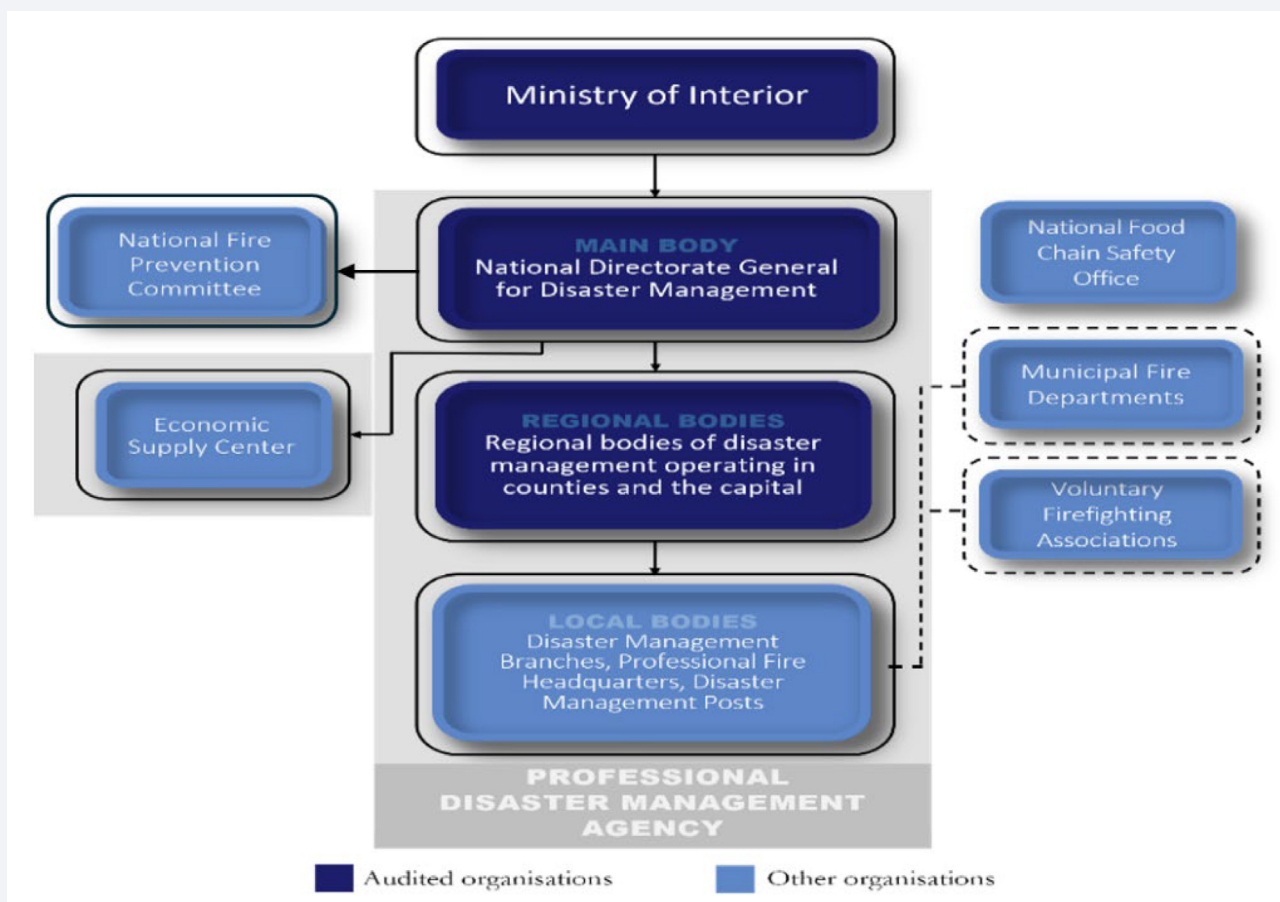
- The contribution of the information activities carried out by disaster management bodies for the purpose of fire prevention to the effective operation of the fire prevention system
- The contribution of the fire protection authority and supervisory activities carried out by disaster management bodies for the purpose of fire prevention to the effective operation of the fire prevention system

- The contribution of the disaster management bodies to the transparent registration of financial resources and human resources in the case of information, fire protection authority and supervisory activities carried out for the purpose of fire prevention

The audited organisations were the Ministry of Interior, as an organisation led by the minister responsible for emergency/disaster management, the National Directorate General for Disaster Management, Ministry of the Interior (NDGDM), as the central disaster management body with national competence as well as the regional disaster management bodies with competence on county and capital city level.

The audit affected additional organisations in connection with their role in the fire prevention system (Figure 1).

Figure 1 — Audited and other organisations within the scope of the audit



Source: Based on the Disaster Management 2021 yearbook, edited by the SAO

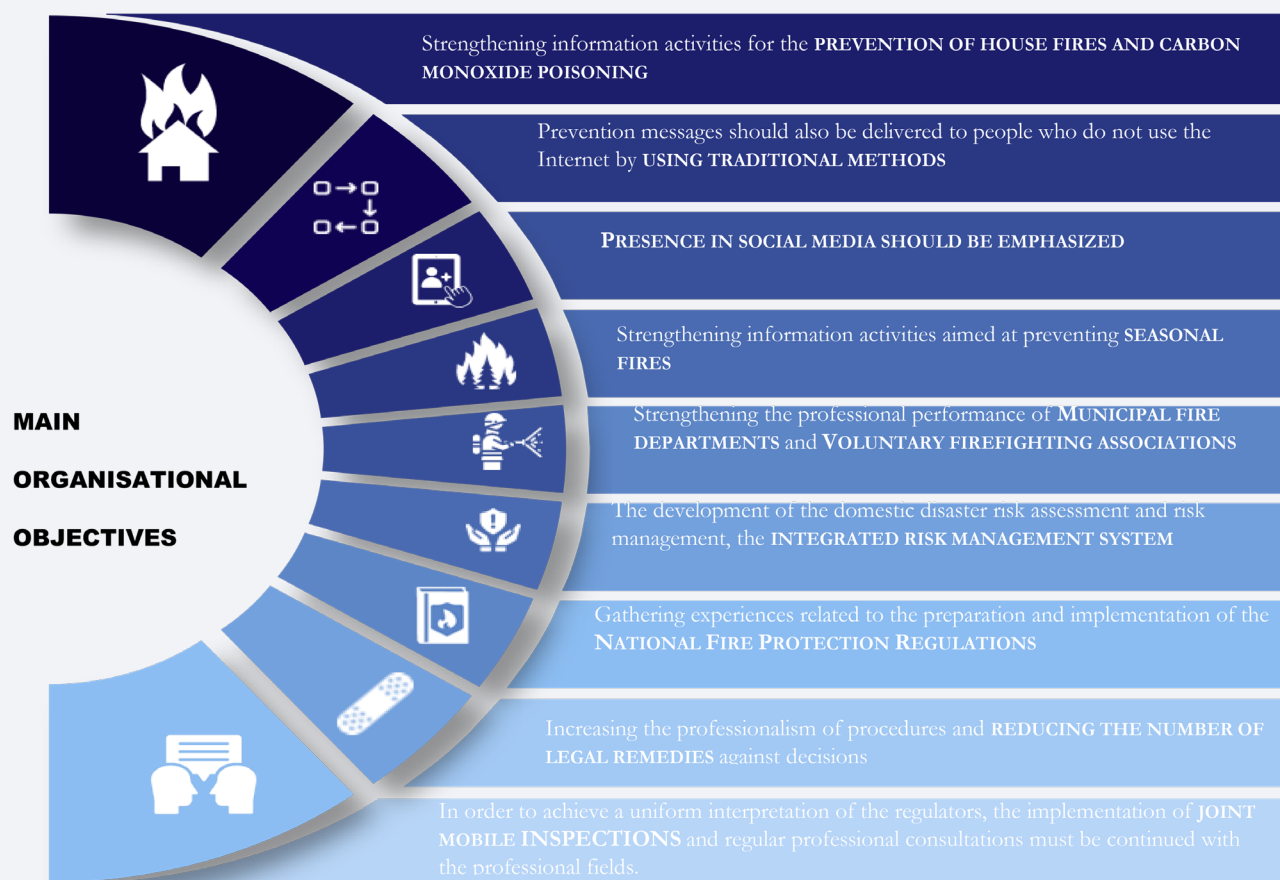
The report of the SAO on the audit made a number of findings regarding the performance of fire prevention tasks:

- As a result of its preparatory and legislative activities concerning the area, the Ministry of Interior, as the department responsible for disaster management, defined the strategic goals of the information and fire protection authority and supervisory activities carried out for the purpose of fire prevention and the

tasks to achieve the goals as well as the basic framework and rules of task performance in legislation and public law instruments.

- The NGDM also had annual work program, a half-year work plan (semi-annual management work plan), an annual communication plan as well as monthly plans. It planned the tasks and objectives of the information activity for fire prevention based on the sectoral objectives set by the Ministry of Interior (Figure 2).

Figure 2: Main organisational objectives related to fire prevention in the period 2019–2022



Source: based on the annual institutional work plans and annual work programs 2019–2022 of the NGDM, edited by the SAO

In the plan documents, in the case of the objectives related to the information activities carried out for the sake of fire prevention, no quantified objectives, target values and indicators, metrics were formulated, those were aimed at the continuation, enhancement or strengthening of the information activities (e.g. public information activities, preparation for the dangers of disasters, communication of disaster management aimed at prevention). By comparing the relevant data of the period, the NGDM provided an evaluation for the strengthening, enhancement, and increase of the activities, however, in the absence of quantified goals, the achieved results could not be compared to target values. Therefore, the audit of the SAO recommended to the Director General of the NGDM that, in the case of information activities carried out for the sake of fire prevention, it should take

measures to define quantifiable goals and assign metrics and indicators to them.

- Information flow, information collection and processing between the NGDM and regional bodies were supported by IT systems. The measures issued by the Director-General to regulate the regular reporting procedure of professional disaster management bodies defined the content, form, frequency, and detail of the reporting obligations of professional disaster management bodies, as well as the obligation to report on the activities of regional bodies in the field of fire prevention and its content.

In order to further develop the information activities carried out for the sake of fire prevention, the Communication Service of the NGDM held monthly

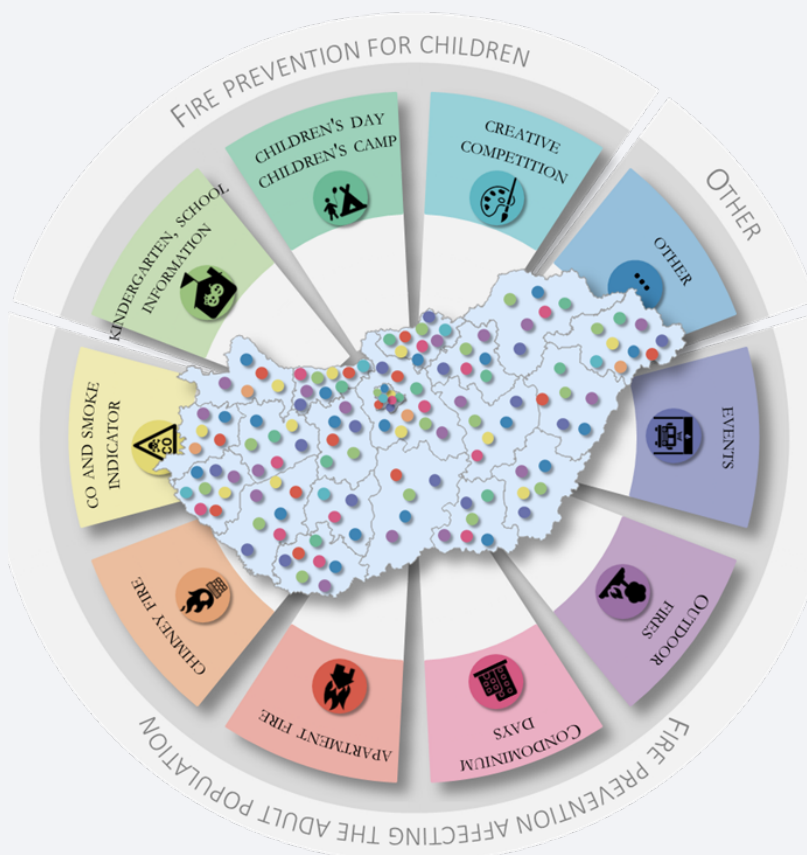
training for the spokespersons of the regional bodies. The semi-annual communication reports included a national analysis of the communication experiences of the previous period. In the semi-annual communication reports, NGDM revealed the changing trends and their causes, presented the average number of visitors to the NGDM official website, the most popular news, posts, data on the ratio of monthly topics, and the number of people reached. In its reports, the Communication Service focused on the effectiveness of the information activity and the conclusions drawn from the experiences, as well as defined the areas of communication to be improved.

- The National Fire Prevention Committee — an advisory, proposal-making and communication

organisation established to transfer knowledge about fire prevention, chaired by the current Director General of the NDGDM — structured its fire prevention information activities in a planned and programmed manner, for which it independently requested and received budgetary support and extra-budgetary resources. The extensive and diverse information activities of the National Fire Prevention Committee and the NDGDM as well as the regional bodies contributed to the effective operation of the fire prevention system.

In addition to the appearances on individual media platforms, fire prevention knowledge was personally shared with the public at various events (Figure 3).

Figure 3: Fire prevention information activities



Source: based on data provided by NDGDM and edited by the SAO

Between 2019–2022, the NGDM and the regional bodies, as well as the National Fire Prevention Committee, appeared at more than 5,600 events, addressing hundreds of thousands of people, and carried out public information activities related to fire prevention.

The National Fire Prevention Committee — through the activities of the NGDM and its regional bodies — aimed to promote the spread of carbon monoxide and smoke detectors, within the framework of which it distributed hundreds of carbon monoxide and smoke detectors at its events, and delivered them to the socially needy persons — in the case of smoke detectors, typically for users of wood-burning heating systems.

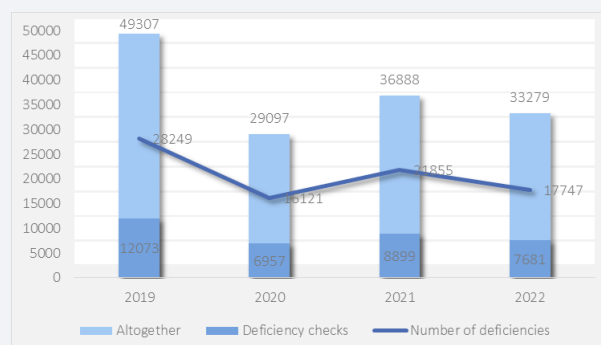
- The NDGDM and the regional bodies, as well as the National Fire Prevention Committee strengthened the cooperation relating to informational activities with partner bodies, business organisations and other institutions. The regional bodies concluded cooperation agreements with the firefighting associations of the counties, and within the framework of additional cooperation agreements, the coordination of the general fire protection tasks and firefighting activities of the professional fire departments, fire headquarters and voluntary firefighting associations was fulfilled. Among the sectoral objectives the strengthening of the tasks of voluntary firefighting associations was present as well as achieved. The number of cooperation agreements with voluntary firefighting associations increased from 625 to 689 between 2019–2022.
- The NDGDM and the National Food Chain Safety Office responsible for food safety in addition to areas like forest management cooperated in the prevention of forest fires and agricultural activity, especially in case of the prevention of fires occurring during harvesting. In the field of forest fire protection, the most important part of the cooperation between the NDGDM and the National Food Chain Safety Office was the determination of the increased fire risk (fire

ban), upon which the two organisations agreed in writing in each case.

The fact that the Cooperation Agreement between the two organisations and the forest fire protection plans were drawn up more than 12 years ago and have not been updated since then, posed a risk to the effectiveness of forest fire prevention activities. In its report, the SAO therefore recommended to the Director General of the Ministry of Interior to initiate the renewal of the cooperation agreement between the NDGDM and the National Food Chain Safety Office and to ensure the complete fulfilment of the tasks stipulated in the cooperation agreement.

- The fire protection authority and supervision activities of the NDGDM and its regional bodies involved approximately 60,000 official cases per year, of which approximately 30,000 were inspections (Figure 4).

Figure 4: Data on deficiencies revealed by fire protection authority inspections regarding the years of 2019–2022 years (number)



Source: based on NDGDM data edited by the SAO

In the case of data from fire protection official inspections, the NDGDM separately showed the number of inspections detecting deficiencies and the number of deficiencies, which, if only partially (since the latter data basically depends on the inspected organisations), supported the well-founded planning of the inspections.

The quality and professionalism of the fire protection authority's activities for the sake of fire prevention were indicated by appeals against first-degree decisions, legal remedy procedures and the development of their final results. The NDGDM and its regional bodies monitored the development of data on second-degree decisions. The data showed that in the field of fire protection, the number of appeals was 0.8% of the inspections revealing deficiencies in 2019, 1.2% in 2020, and less than half percent between 2021–2022, of which on average only 50% of cases resulted in a different second-degree decision.

- The fire protection inspections, which constitute a significant part of the fire protection authority and supervisory activity, were planned and based on risk analysis, for which data from external sources were used in addition to the statistics available within the organisational system. The use of external data was not regulated by the NDGDM, the SAO audit therefore recommended to the Director General of the NDGDM to take measures to determine the rules for the risk analysis and for the scope, acquisition, analysis, cleaning and utilisation of data from external and internal sources to be used during the risk analysis.

The audit report of the SAO pointed out that the expansion of the range of data from external sources, especially relevant census data collected by the Central Statistical Office (e. g.: heating system of apartments) further increase the effectiveness of authority, supervisory and information activities as well as enables the more thorough planning of audits and more targeted planning of information activities. In the audit report of the SAO, it was also demonstrated with examples and calculations that during the analysis of data, the use of composite indicators can provide more accurate results. The audit of the SAO recommended the Director General of the NDGDM to take measures to widen the possibilities of using data from external sources that can be taken into account for the purpose of risk analysis, and to apply composite indicators in the evaluation of activities carried out for fire prevention.

- The NDGDM evaluated fire protection authority activities of its own as well those of its regional bodies in summary reports of 2019–2022 evaluating its annual activities. The NDGDM defined the minimum number of fire protection official inspections to be carried out each year for its regional bodies in connection with the fire protection authority and supervisory activities carried out for the sake of fire prevention in 2019–2022. All regional bodies fulfilled the number of annual fire protection official inspections of 2019–2022 defined as the minimum annual professional performance requirement. The annual average overperformance in the audited years fell between 200.9% and 261.0%, so the regional bodies performed an average of 2–2.5 times more inspections than the minimum requirements.

The minimum performance values for the number of fire protection official inspections were significantly underestimated by the NDGDM in the audited period, which poses a risk to the performance of the activity due to the ease of completion. The SAO audit therefore recommended to the Director General of the NDGDM to take measures to review the determination of the minimum performance requirements of the fire protection official inspections during the 2024 organisational performance evaluation.

- The NDGDM and the regional bodies achieved the set goals in the field of fire protection authority and supervisory tasks, and the performance of tasks was effective. The NDGDM and the regional bodies developed the integrated risk management system, they were continuously preparing for the application of the National Fire Protection Regulations and collecting experience related to its effectiveness.
- Material and accumulation expenses related to the fire prevention information activities of the NDGDM and regional bodies, as well as personal benefits for non-permanent employment were primarily concentrated in the budget of the National Food Chain Safety Office. The source of the National Food Chain Safety Office's budget

consisted of transfers between budget chapters (Ministry of Agriculture and its predecessors, and Ministry of Energy and its predecessors), as well as donations from civil and economic organisations. Ministerial subsidies decreased year by year from 20–20 million HUF in 2019, and in 2022, the National Food Chain Safety Office no longer received ministerial (central budget) subsidies. In its audit report in order to ensure the availability of funds for fire prevention, the SAO recommended to the Director General of the NDGDM to initiate the availability of central budget funds for the operation of the National Food Chain Safety Office, if the subsidies from other organisations do not ensure the effective operation of the National Food Chain Safety Office.

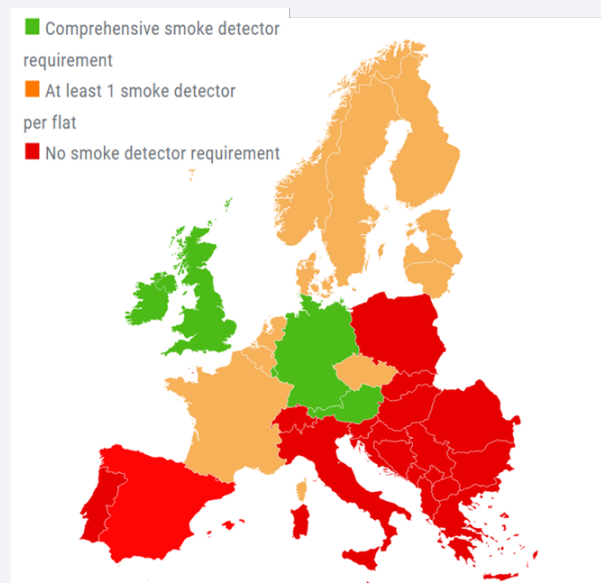
The income and expenses of the NDGDM were separated from the funds of the NDGDM Economic Supply Center in the integrated management system, which included accumulation and material expenses as well as personal benefits for non-permanent employment. In the financial records kept by the NDGDM and its regional bodies in connection with the fire prevention information, as well as fire protection authority and supervision activities, the proportionate personal allowances of the members of the professional disaster protection bodies, which also carry out fire prevention activities linked to the National Food Chain Safety Office were not separately included. For this reason, the separate statement of expenditures for fire prevention information activities — regardless of the source from which they were financed — was not complete. Therefore, in the audit report, the SAO recommended the separate statement of proportionate personal allowances of those who belong to the professional disaster management organisation, which also carries out fire prevention activities linked to the National Food Chain Safety Office.

- The participation of municipal fire departments and voluntary firefighting associations, which also perform fire prevention tasks in firefighting and technical rescue takes place under the guidance and cooperation of the

professional disaster management body. Funds for the central budget support of municipal fire departments and voluntary firefighting associations were provided by the chapter-managed appropriations classified under the Ministry of Interior chapter of the budget laws of the given year, which — in accordance with the Ministry of Interior decrees on the use of chapter-managed appropriations — are paid by the NDGDM and regional bodies through tenders or individual. The NDGDM and its regional bodies transparently separated the settlement of subsidies by organisation and by legal title, thus documenting the settlement to the Hungarian State Treasury.

The audit report also pointed out different legal requirements for the use of smoke detectors in each country (Figure 5). The smoke detectors indicate in time when the amount of smoke in the apartment is harmful to the human body, thus helping to escape and intervene. 90 % of the victims of house fires lose their lives due to smoke and since a significant number of deaths can be prevented with smoke detectors (according to expert opinion, the number of deaths can be reduced by about 20 %).

Figure 5: Mandatory use of smoke detectors in certain European countries



Source: www.q-certified.eu

In certain countries (e. g. Germany, Great Britain, Austria, Czech Republic) it is mandatory to install smoke detectors in residential buildings for fire protection purposes. In Hungary, the use of smoke detectors in apartments is not mandatory, but at the same time, promotion of the use of smoke detectors was a priority among fire prevention information activities.

In order to remedy the deficiencies revealed during the audit, the Director General of the NDGDM — based on the provisions of the Act on the SAO — prepared an action plan, in which the persons responsible for the implementation of the planned measures and the implementation deadlines were recorded. The measures of the action plan — including, among others, the setting of quantifiable goals, which can be linked to information activities, the updating of cooperation agreements and forest fire protection plans, the regulation and more effective use of data, and the separate disclosure of proportionate personal allowances for members of the professional disaster management body that also carries out fire prevention activities linked to National Fire Prevention Committee — are able to provide a more efficient, effective and, at the same time, more transparent task performance in the field of fire prevention.



Name of the SAI: **The Supreme Audit Chamber of the Republic of Kazakhstan**

Alikhan Smailov — Chairman of The Supreme Audit Chamber of the Republic of Kazakhstan

“YOUR WORK HAS BECOME THE BASIS FOR MAKING THE RIGHT DECISIONS AND IMPLEMENTING IMPORTANT CHANGES”: ALIKHAN SMAILOV ON THE 10th ANNIVERSARY OF THE EUROSAI WORKING GROUP ON THE OCCASION OF THE 10th ANNIVERSARY OF THE EUROSAI WORKING GROUP

Dear colleagues, dear readers!

On behalf of the Supreme Audit Chamber of the Republic of Kazakhstan and on my own behalf, I would like to sincerely congratulate the EUROSAI Working Group on the Audit of Funds Allocated for the Prevention and Elimination of the Consequences of Disasters on the 10th anniversary of its foundation!

Over the past years, the Working Group has done a tremendous amount of work to increase the capacity, unite and coordinate the efforts of the supreme audit institutions of European countries in this important area.

On behalf of the Supreme Audit Chamber of the Republic of Kazakhstan, I would like to once again congratulate the EUROSAI Working Group on the 10th anniversary of its foundation! Examples of successful practice accumulated over the past years confirm the effectiveness of this area of audit. The developed reports and recommendations became

the basis for making the right decisions and implementing important changes in the legislation and practice of risk management.

At the same time, our journey in the field of disaster prevention auditing is just the beginning. We shall continue to develop and improve our methods and approaches, as well as actively cooperate at the international level to share experiences and transfer best practices.

We are pleased with our partnership with EUROSAI and respect your dedication to the values of professionalism, independence and cooperation. We wish you success and new achievements in your significant work!

With respect,

Alikhan Smailov,
Chairman of The Supreme Audit Chamber of the
Republic of Kazakhstan

The Supreme Audit Chamber of the Republic of Kazakhstan and EUROSAI successfully cooperate in such areas as auditing the efficiency of response of state bodies to emergency situations, assessing the efficiency of resource use and developing recommendations for improving crisis management systems.

For Kazakhstan, as for many other countries, the issues of prevention and effective response to various emergencies are a priority. Through joint efforts, we have been able to develop and implement effective audit methods that help minimize risks and improve response in critical situations.

Organizations of supreme audit institutions have independence and objectivity in their activities, which allows them to analyze the situation without bias and interference from external groups. This is especially important in the context of various disasters, where an objective assessment of events and their consequences is a key element for building an effective system of counteraction.

The Ministry for Emergency Situations of the Republic of Kazakhstan and its territorial subdivisions in the regions are subject to state audit. Their main function is to ensure the protection of the population, facilities and territory from natural and man-made emergencies, the development of the country's civil defense system.

Almost all types of natural and man-made threats occur in Kazakhstan. We are talking about earthquakes, floods, landslides, mudflows, avalanches, drought and extreme temperatures. A significant part of disasters is also made up of industrial and transport accidents.

The subject of state audit in this area covers various aspects. These include planning and preparation for emergencies, the effectiveness of actions and the quality of coordination, compliance with regulations and standards, training issues, etc.

Over the past 5 years, more than 69 thousand natural and man-made emergencies have been registered in our country. Material damage from them amounted to more than 230 billion tenge (517.3 million USD). In this regard, the main tasks in this area are to ensure the effectiveness of government agencies in emergency situations, as well as the development and implementation of measures to prevent and minimize the risks of catastrophic events.

The Supreme Audit Chamber of the Republic of Kazakhstan conducted a state audit of the use of republican budget funds allocated for the prevention and elimination of natural and man-made emergencies in the period from 2020–2023. In addition, the funds allocated from the Government's reserve were also audited.

As part of the audit, the focus was placed on the following criteria:

1. Completeness and timeliness of financing, as well as targeted use of funds for measures to prevent natural and man-made emergencies;
2. Achievement of the goals provided for in the strategic planning documents, as well as their implementation in quantitative indicators;
3. Completeness of implementation of tasks and functions of audited entities (Ministry for Emergency Situations of the Republic of Kazakhstan and its territorial subdivisions);
4. Compliance of the measures taken to prevent emergencies with the purpose and subject of activity of the audited entity;
5. Efficiency of activity of regional subdivisions of the Ministry for Emergency Situations in the field of ensuring the functioning of the territorial subsystem of the state system of civil protection;
6. Efficiency of the activities of regional subdivisions of the Ministry for Emergency Situations in terms of fire prevention and extinguishing;
7. Assessment of the condition of fire, rescue and other equipment, fire-fighting equipment, emergency rescue equipment, communication facilities, inventory and other property;
8. Compliance with the legality of the conclusion of contracts and the implementation of their terms and conditions in the performance of work, the provision of services and the supply of goods (machinery, equipment) as part of emergency prevention measures;
9. Compliance with the requirements for replenishment of stocks of material resources created for the elimination of emergencies and their consequences;
10. Completeness and timeliness of the use of funds received as humanitarian aid for their intended purpose;
11. Validity of calculations of the required amount requested for the elimination of natural and man-made emergencies;
12. Effectiveness of the use of funds for the purpose of emergency response.

I have outlined only the key criteria of the audit. However, to ensure the completeness of the analysis, many other aspects of the activities of emergency authorities were also touched upon.

Based on the results of the audit, deficiencies were identified and noted in:

- development and implementation of measures to prevent emergencies;
- ensuring the readiness of warning systems;
- organization of inspections in the field of fire safety;
- implementation of state control in the field of civil defense;
- organization of scientific research.

The Supreme Audit Chamber gave appropriate recommendations on the elimination of the identified violations.

Among our recommendations, I can highlight the following:

- to ensure the development of the civil protection system with a priority for the prevention and forecasting of emergencies with the implementation of all measures in the field of civil protection provided for by program documents and comprehensive plans for the development of regions;
- to provide in the planning documents for seismological surveys throughout the country, not limited to individual regions;
- to amend the legislation in terms of simplifying procedures for the construction of protective structures;
- to develop the Concept of development in the field of industrial safety of the Republic of Kazakhstan and others.



Name of the SAI: **National Audit Office of Kosovo**

Vlora Spanca — Auditor General of the Republic of Kosovo

THE OPINION OF THE HEAD OF THE SAI REGARDING THE IMPORTANCE OF AUDITS IN THE AREA OF PREVENTION AND ELIMINATION OF CONSEQUENCES OF DISASTERS

“As the head of the SAI, I believe that it is crucial for SAI-s to conduct audits that serve to the interest of the citizens, especially those related to prevention of disaster and handling of the pandemic situations by public institutions. By thoroughly examining the effectiveness of emergency management systems in real-time, identifying gaps, and providing implementable recommendations promptly, audits contribute significantly to enhancing the preparedness, response, and recovery efforts. This includes supply chain management, such as ensuring an adequate supply of medicines and medical equipment to meet the demands of patients with COVID-19, as well as optimizing human resources and medical devices to address the healthcare needs during the pandemic. The ability to assess and address issues as they unfold enables agile decision-making and ensures that corrective measures are implemented swiftly, minimizing the impact of disasters, including public health emergencies, on communities and infrastructure.”

Brief information on the experience of the SAI in the area of disaster audits

The National Audit Office of Kosovo conducted a performance audit on:

“Prevention and Response to Emergency Situations: Floods.

“Supply with medicines and medical equipment to meet the demands of patients with COVID-19”

“Optimization of human resources and medical devices to meet the demands of patients with COVID-19”

An example of best practice in conducting an audit

“In conducting the audit, we strived to adhere to best practices in line with international standards and guidelines. This approach ensured the thorough examination of emergency management systems and the identification of critical gaps and areas for improvement. By aligning our audit methods with international best practices, we aimed to enhance the credibility, reliability, and effectiveness of our audit processes. Our commitment to utilizing internationally recognized standards underscores our dedication to excellence in audit practices and contributes to the overall quality and reliability of our audit findings and recommendations.”

Audit topic:

1. Prevention and response to emergencies: Floods
2. Covid-19 Pandemic

Description of the disaster audit area, its challenges.

Disaster audit in Kosovo faces multifaceted challenges due to the diverse nature of emergencies, including natural disasters, other crises, and the COVID-19 pandemic. The country's vulnerability to floods, earthquakes, and other hazards underscores the need for robust disaster preparedness and response measures. Recent audits have revealed shortcomings in infrastructure, emergency systems, and response coordination, particularly in some of the regions in Kosovo. Inconsistent response records and resource limitations at the municipal level further highlight the complexities of effective disaster management during the audit. The COVID-19 pandemic has added a new layer of challenges, overwhelmed the health system, and necessitated special measures for testing, treatment, and containment. Insufficient resources and capacities, especially in terms of Personal Protective Equipment, medical supplies, and healthcare facilities, have strained the response efforts. International cooperation and assistance have played a role in mitigating some challenges, but ongoing coordination and optimization of human resources and medical devices remained critical to meet the demands of patients with COVID-19.

Applied approaches.

For floods audit, the problem-based approach with system-based orientation has been applied. The combination of these two audit approaches has provided for the most accurate and appropriate verification of institutional performance.

Whilst for Covid-19 audits, the problem-based approach has been applied.

1. The main results of the audit “Prevention and response to emergencies: Floods”

The audit conclusion is that the responsible institutions at the central and local level have not managed to establish an appropriate system that would effectively provide for the prevention and response to emergencies of floods/deluges in the Republic of Kosovo.

The activities undertaken to prevent and respond to flood emergencies have been accompanied by some shortcomings, which have made these situations difficult to manage. The shortcomings identified in the activities of prevention and response to emergencies during floods are:

1. *Kosovo Security Council and Ministry of Internal Affairs have failed to update strategic documents for responding to and managing the emergencies.*

These documents have not been updated since 2010 and keep being used even today. Until the adoption of a new document, the Kosovo Security Strategy remains with the 2010 document, which may not reflect the new circumstances in emergency management. The National Response Plan has found no implementation in many interventions carried out during disasters.

2. *Emergency Management Agency failed to reassess and update risk assessment documents and historical disaster data nationwide.*

The document for the assessment of risks from natural and other disasters at the national level has not been updated since 2016. Failure to update this document made it impossible to predict disasters and possible consequences of disasters, making it impossible to properly assess the protection against the relevant risks and the protection, rescue, and relief preventive measures. Historical data on natural and other disasters are incomplete. The DesInventar database with historical data analyses the disaster trends and their impacts in a systematic way. The database, which is operational and accessible only within the government network, has not been completed by the Emergency Management Agency (EMA) and the municipalities, which was last updated in 2019. There is no data in the system for 2020.

3. *Emergency Management Agency failed to monitor the prevention and performance evaluation activities of the Professional Firefighting and Rescue Units.* EMA has not been informed and has not verified the situation in the municipalities on the possession of the risk document and the protection, rescue, and relief plan, as a result of failing to recruit the Chief Inspector. On the other hand, the local level has not managed to finalize the risk assessment documents and protection, rescue, and relief plans. There is a lack of post-action reports in two of audited municipalities. Also, the performance of the Professional Firefighting and Rescue Units was not measured, which is important to identify problems and eventual causes and to plan activities for the future.

4. *The central and local levels failed to provide sufficient human and technical resources to respond to emergencies/floods.* There is a lack of human and technical resources for relief and rescue.

There should be **1188**  **trained and ready to respond, based on the number of habitual residents.**

  **Currently there are 766 active firefighters across Kosovo**

The Specialized Intervention unit for rescue from deep waters (diving) it was not functioning. Currently, these units are part of the firefighting brigade, and the surface water rescues stand as a secondary activity to them. For the time being, the Kosovo Security Force is the only one dealing with deep water search and rescue. Also, the psycho-physical ability of the members of the Professional Firefighting and Rescue Units was not verified. Due to the lack of human and technical capacities, it is impossible to raise the response preparedness to a higher level and it makes it difficult to operate and respond quickly and efficiently should natural or other disasters occur.

II. The main results of the audit “Supply with medicines and medical equipment to meet the demands of patients with COVID-19”



The audit has concluded that public health institutions, despite the challenges faced, have managed to reorganize and put in place adequate processes, which have been useful in providing health services to patients with COVID-19, based on the technical possibilities and capacities, and human resources available for the treatment of patients. The supply with medicines and medical supplies has been conducted by public health institutions, which have partly met the demands compared to the number of patients infected with COVID-19 and their needs. However, despite efforts to properly and timely meet the COVID-19 treatment demands, the audit has identified some shortcomings which have led to insufficient supply with medicines and medical supplies by public health institutions during the pandemic. These shortcomings have to a large extent led to incomplete functioning of the Health Information System (HIS). Particularly:

1. **Health institutions have not provided all the medicines and medical supplies necessary for the treatment of patients with COVID-19.** Despite the fact that the Pandemic Influenza Action Plan and the Law on Prevention and Fight against COVID-19 Pandemic stipulates that in addition to examination, institutions must provide the medicaments and basic materials



necessary for the treatment of patients with COVID-19, this was not implemented in many of the cases subject to our testing. Patients have therefore had to purchase some of the medicines themselves.

2. **Planning on the quantity or type of medicines and medical supplies necessary for the treatment of patients with COVID-19 is not carried out based on the medicines administered to patients.** Health institutions have failed to obtain such information, which is one of the reasons why health institutions are lacking appropriate data on the quantity or type of medicines administered to patients.
3. **The Central Pharmacy has not systematically coordinated with subordinate pharmacies when it comes to the quantity of available medicine stockpiles and time projections regarding coverage with those medicines.** Preparatory plans regarding the quantity and type of Personal Protective Equipment and other medical supplies to deal with the pandemic have not been followed by sufficient supplies, which has led to the situation of health institutions having scarce stockpiles of medicines at the start of the pandemic.

III. The main results of the audit “Optimisation of human resources and medical devices to meet the demands of patients with COVID-19”.



The audit has concluded that public health institutions, despite the challenges faced, have managed to reorganise and put in place adequate processes, which have been useful in providing health services to patients with COVID-19, based on the technical possibilities and capacities, and human resources available for the treatment of patients. The optimization of human resources and medical devices to meet the demands of patients with COVID-19 has been conducted by public health institutions, which have partly met the demands compared to the number of patients infected with COVID-19 by continuously being up to date with the instructions of the international health institutions. However, despite efforts to properly and timely meet the demands of patients with COVID-19 for treatment, the audit has identified some shortcomings which have led to insufficient provision of treatment services during the pandemic. Incomplete functioning of the Health Information System (HIS) has to a large extent led to these shortcomings. Particularly:

1. **Health institutions have not provided sufficient health staff to deal with the COVID-19 pandemic.** Although health institutions have established special commissions for the management of health staff during the



COVID-19 pandemic, they have not been able to timely analyze the needs for staff. Health institutions have not systematically coordinated and communicated during the pandemic to continuously identify the needs and the available health staff in order to respond to the demands of COVID-19 patients. In addition to the lack of coordination and communication to meet the needs for health staff, these shortcomings were also due to budgetary and procedural difficulties in recruiting the needed staff during the pandemic. Due to insufficient staff working in the infectious disease wards, health institutions have temporarily rearranged health staff to treat patients with COVID-19, but they have not undertaken any specific training related to this disease beforehand.

2. **Health institutions, had not prepared actions plans for the management of hospital premises for the treatment of COVID-19 patients, whilst the Hospital and University Clinical Service of Kosovo (HUCSK) prepared the action plan in January 2021.** HUCSK did not have an action plan for the management of medical devices needed for the treatment of patients with COVID-19.

Despite the frequent and continuous meetings of the relevant commissions where analyses were conducted regarding the hospital premises based on the emergency, the health institutions, except for one audited hospital, had not developed action plans to respond to the changes. The lack of a medical devices management plan during the COVID-19 pandemic situation may adversely affect the timely deployment of medical devices needed to treat these patients. The lack of continuous, timely, and comprehensive communication between Primary Health Care and other healthcare levels to identify the needs for clinical treatment of patients in advance has led to delayed treatment of patients with COVID-19.

An example of the best lessons learned during the audit.

“A critical lesson learned from the audit is the urgent need for updated strategic documents and risk assessment tools in emergency management. The failure to update strategic documents since 2010, including the Kosovo Security Strategy, and the lack of updated risk assessment documents and historical disaster data have severely hindered disaster prediction, assessment, and response. This gap in essential resources has resulted in challenges such as incomplete disaster trend analysis, inadequate preparedness, and limitations in responding swiftly and effectively to disasters, including the COVID-19 pandemic. The audit findings related to COVID-19 highlighted shortcomings in the supply of medicines and medical equipment to meet the demands of patients. Health institutions faced challenges in providing all necessary medicines and materials for COVID-19 treatment, leading to patients having to purchase some of the medicines themselves. Planning and coordination regarding the quantity and type of medicines and medical supplies were also found lacking, thus contributing to insufficient supplies during the pandemic. Additionally, the optimization of human resources and medical devices to meet the demands of COVID-19 patients faced obstacles due to insufficient health staff and the lack of comprehensive action plans for managing hospital premises and medical devices. These findings underscore the importance of real-time updates and audits, and strategic planning in disaster management to ensure effective response and resource allocation during emergencies.”



Latvijas Republikas
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Name of the SAI: **State Audit Office of Latvia**

Mr Edgars Korčagins — Auditor General of Latvia

THE COVID-19 PANDEMIC AND THE WAR IN UKRAINE HIGHLIGHT THE CRITICAL NEED FOR CIVIL PROTECTION IN EVERY COUNTRY

Importance of audits in disaster prevention and mitigation

We conducted the audit on civil protection at a time when the world agenda was largely determined by the COVID-19 pandemic, and Russia started the war in Ukraine when the final stage of the audit was reached. Therefore, as part of the audit, we paid increased attention to the management of the COVID-19 pandemic and assessed the performance of institutions in terms of preventive and preparedness measures planned within the framework of the civil protection system in the event of a war or military threat.

Under these circumstances, it was especially important to once again draw the attention of all responsible state institutions to how well they are prepared and how appropriately they would be able to act in the event of a crisis; whether the division of their responsibilities is clear and whether their ability to react is adequately tested through exercises. The audit also brought up the issue on whether all residents of Latvia are well

enough informed about the necessary actions in the event of certain threats, and if they have access to information on what assistance the national and municipal governments will provide in such cases, and what is left to the responsibility at the individual level.

Audit “Planning and Readiness of the National Civil Protection System”

In September 2022, the State Audit Office of Latvia completed the audit “Planning and Readiness of the National Civil Protection System”.

To assess how the civil protection and disaster management system operates, we performed an analysis during the audit to answer the question about whether the nationally defined civil protection policy ensures the establishment of an effective civil protection and disaster management system aligned with best practices and legislation at the EU level.



The audit covered a wide range of issues, assessing whether:

- the legal framework clearly defined the responsibility and tasks of the participating state institutions in crisis management;
- the disaster management model outlined in the legal framework was suitable for managing the COVID-19 epidemic;
- the EU requirements of Member States to establish a disaster risk assessment system to cover the full cycle of disaster management (preventive stage, preparedness, response and recovery) were introduced;
- the National Civil Protection Plan and municipal civil protection plans stipulate a set of clearly understandable and specific measures that would be realistically applicable for the prevention of disasters or as an appropriate and immediate response to an emerging crisis or threat;
- monitoring of the implementation of preventive measures outlined in the civil protection plans was ensured;
- national material reserves were planned and created in accordance with the legal framework;
- exercises necessary for the verification of the operation of the civil protection system were planned and conducted, and whether the regular participation of all stakeholders in the training was secured;
- the State Fire and Rescue Service of Latvia provided full control of compliance with civil protection requirements.

Audit approach and methods

During the audit, we analyzed national and international laws and regulations, policy plans and other documents. We interviewed officials of the responsible line ministries, and heads of municipalities. When looking for ways to improve the civil protection and disaster management system, we reviewed both our own best practices (for example, those of Latvia's disaster medicine) and the experience of other countries (Estonia, Germany, Lithuania, Sweden and the United Kingdom).

The answer to the raised questions was negative because the civil protection policy defined in the country did not ensure the establishment of an effective civil protection and disaster management system. Civil protection and disaster management was largely a neglected area. The audit concluded that improvements were necessary and possible in all segments of the system with the aim to enhance the country's preparedness for crises, minimise occurrences of crises as much as possible, and effectively mitigate the negative impact of such crises.

First, improvement of the institutional model of disaster management is required to provide a clear division of responsibility among state authorities involved in disaster management, to ensure that they possess the required resources and capacity; and that solutions for comprehensive management of disasters affecting the entire country are provided. The existing institutional model of disaster management had not considered neither the legal nor practical aspects of its implementation. The system was created largely in a manner whereby there were many participants, but without any one responsible.

During the COVID-19 pandemic, in order to compensate for the shortcomings of the existing institutional model of disaster management, various ad hoc institutions took on the necessary roles. The search for the most appropriate pandemic management model continued throughout the pandemic. It was also common that the individuals involved in these ad hoc institutions and their management positions had, for the most part, not been previously trained and prepared for disaster management in crisis situations. Therefore the way of thinking and work methods necessary for managing a crisis had to be obtained quickly and during the crisis, together with the challenges of the frequent lack of necessary resources and capacities.

The State Audit Office of Latvia assessed that, in order for the effective functioning of the civil protection and disaster management system in Latvia, the system lacked a strong coordinating, development-oriented and supervisory institution

of the decentralized disaster management system, which could provide advice and assistance to disaster management entities in the development of their civil protection plans, oversee progress and execution, propose improvements to the system, assess the need to establish multi-sector disaster management measures, organize training and expert involvement in disaster management, as well as manage and coordinate multi-sector or national disaster management as needed.

A clearly defined division of competences of the responsible institutions is an important prerequisite for successful crisis management

Secondly, the audit found it necessary to review the approach used in drafting national and municipal civil protection plans. Civil protection plans might not be useful and effective in practice if the measures outlined within them were only ideas without clear details on implementation, timing, funding, and responsible entities. Civil protection plans should not list everything possible that could be done, but they should include real and specific

measures that the responsible institutions should implement within a certain period to prepare for any threat or crisis.

The preventative and preparedness measures defined in the National Civil Protection Plan and municipal civil protection plans were, for the most part, general, and they often did not have specific deadlines for implementation, the allocation of responsibility was unclear, and the source and amount of funding was not determined. Consequently, there was a high probability that disaster management measures, aimed at increased preparedness from potential threats and preventing them as much as possible or reducing the negative consequences of disasters, would be implemented only partially or not at all.

During the audit, we found that the leading institutions of the civil protection system, namely, the Ministry of the Interior and the State Fire and Rescue Service of Latvia, did not have access to complete information about the progress of the plans. Therefore, they did not analyze the progress of the implementation of the plans, the impeding conditions, the capacity of the state institutions, the necessary improvements, etc.



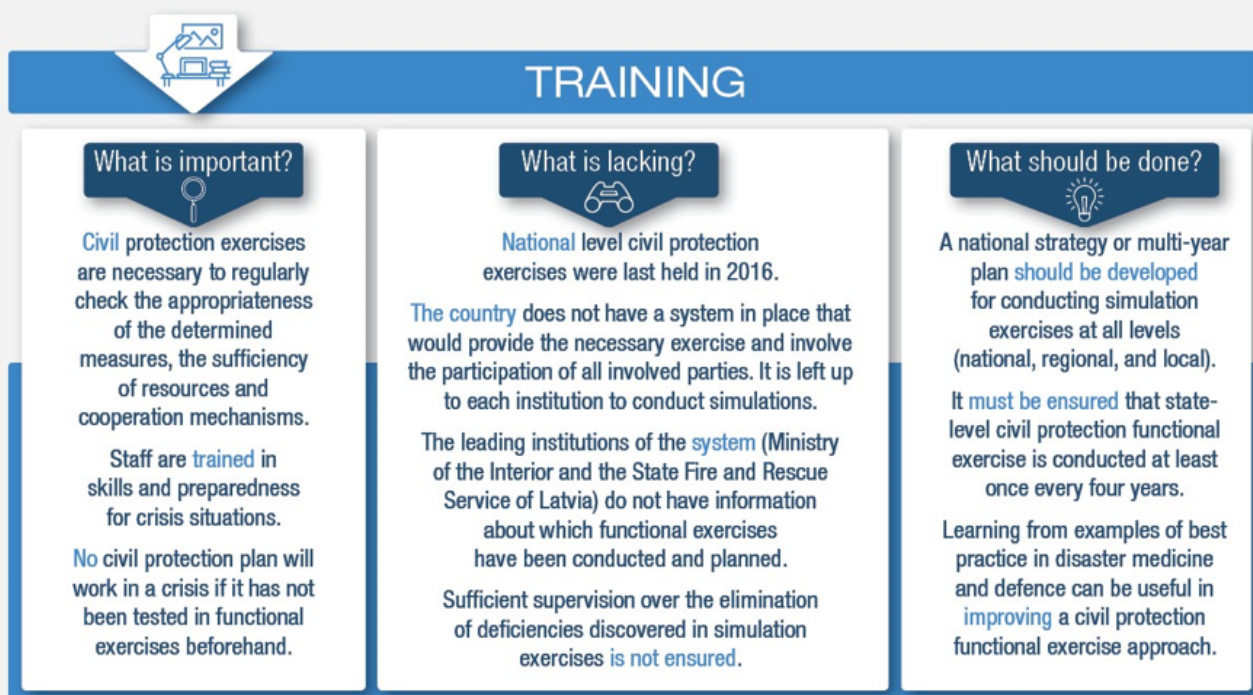
Thirdly, the measures provided for in the plans would not be of much use in a crisis if they were not assessed through practical exercises.

Therefore, regular civil protection exercises are needed, in which crisis preparedness would be trained at all levels, and whereby the compliance of planned measures, the cooperation mechanisms and the availability of resources would be verified.

The audit revealed that the organized training did not involve regular participation of all stakeholders. Ensuring systematic overall training would build up the preparedness for various crisis situations at the same time exercising and checking the adequacy of the measures outlined in the plans, the skills of the staff and the sufficiency of resources. The audit findings outlined that the issue of training,

the evaluation of its results, and introduction of improvements was largely left to the discretion of each individual disaster management entity (ministry, local and regional government), participating institution and enterprise.

At the same time, the audit identified areas in which training was conducted regularly, preparedness for crisis was trained, and the appropriateness and compliance of the measures outlined in the plans were validated during practical exercise. For example, a system had been established and was operating in disaster medicine, which safeguarded regular and planned training of the disaster medicine system, as well as regular annual trainings were provided to test civil and military cooperation.



After the audit, we made 17 recommendations aimed at:

- Establishment of a clear definition of the division of mandates among the ministries and municipalities responsible for disaster management and the improvement of the deconcentrated and decentralized disaster management system.
- Improvement of the National Civil Protection Plan and municipal civil protection plans by providing specific measures, setting deadlines for implementation, and assigning the responsibilities of the relevant institutions so that civil protection plans could be practically applied for disaster management.
- Strengthening oversight of the implementation of civil protection plans and provision of methodological support for the elaboration of municipal civil protection plans, including assessment on whether the elaboration of a model plan that municipalities could use in drafting their own plans would be possible.
- Development of the national material reserves in the required amount and determination of the role of municipalities in the development and use of national material reserves.
- Elaboration of a national medium-term document stipulating the organization of training at all levels (national, regional, and local), as well as determination of supervision over the elimination of shortcomings detected during the exercises.

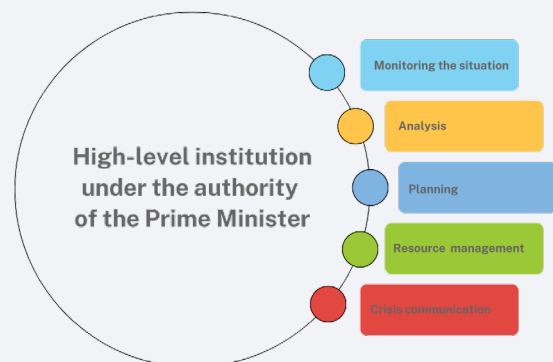
Progress after the audit

Several recommendations have already been implemented, for instance, the National Civil Protection Plan has been revised and oversight regarding the implementation of the measures specified in the Plan has been reinforced. The final deadline for implementation of the recommendations is set for the end of 2025.

The State Audit Office of Latvia also called on the Prime Minister of Latvia to assess the possibility of establishing a high-level institution for the coordination, development planning and monitoring of the deconcentrated and decentralized disaster management system.

In 2024, the government of Latvia allocated the first tranche of funding for the establishment of such an institution, which will be under the authority of the Prime Minister and will have five strategic directions:

- Monitoring the situation — systematic collection and transfer of information. Identification of risks and threats, status of the situation.
- Analysis — information and data processing, identification and assessment of risks and threats, preparation of analytical reports and draft decisions.
- Planning — provision of strategic planning and coordination of operational planning. Coordination of civil crisis management training.
- Resource management — coordination of planning, logistics and recovery of state-level civil crisis management resources, including national material reserves, based on risk assessment and established priorities.
- Crisis communication — development of crisis communication algorithms and methodical materials, crisis communication training, and coordination of interinstitutional internal and external crisis communication during a civil crisis.



The State Audit Office of Latvia is satisfied with the results of this large-scale audit, especially because it was planned, carried out, and concluded at the right time — when civil protection and disaster management issues emerged, and discussion on these issues were at their peak. Although not all recommendations are being implemented as quickly as initially planned or recommended, we are convinced, that we can expect significant improvements in this area.



Name of the SAI: **National Audit Office of Lithuania**

Mindaugas Macijauskas — Auditor General

BUILDING RESILIENCE: STRENGTHENING INSTITUTIONAL READINESS IN TIMES OF CRISIS

In the current landscape of increasing geopolitical tensions and natural disasters, public institutions and the entire governance system must be prepared to respond effectively to extreme circumstances. Recognizing the importance of resilience, readiness is paramount for maintaining stability and safeguarding citizens' well-being. Investing in preparedness, strengthening response capabilities, and fostering collaboration are essential for withstanding and recovering from crises. Resilience is vital in today's interconnected world, where adapting to evolving threats is necessary for security.

Supreme audit institutions, through audits and other activities, promote transparency, identify weaknesses, and provide the necessary drive for improvement. This contributes to strengthening the country's resilience and enhancing institutional readiness. Effective action management and efficient fund utilization during extreme situations and in mitigating their consequences are also vital aspects that further bolster our preparedness and ability to navigate crises effectively. In our audits, we draw attention to what needs to be improved so that such circumstances do not take us aback in the future, and state resources are used as efficiently as possible and help to achieve the goals set.

By fortifying our resilience and promptly addressing critical national issues such as defence, energy independence, and economic stability, we can better anticipate, prepare for, and respond to various challenges, ensuring a safer future for all.

Navigating contemporary challenges through audits

The COVID-19 pandemic, the migrant crisis, the war in Ukraine, and the adverse effects of climate change have underscored the necessity to address timely and effectively the issues of national defence, energy independence, economics, and other critical matters for the state. As managing emergencies has become a major challenge for the country, the role of the Supreme Audit Institution has become even more important in responding to emergency management mechanisms while upholding discipline in public financial management, transparency, and accountability. The National Audit Office of Lithuania strategically tailors audit topics to effectively address the risks associated with these challenges, in light of recent circumstances.

During the pandemic, Lithuania has implemented various funds and support measures to mitigate the economic impact and assist affected individuals and businesses. Additionally, with the onset of the Recovery and Resilience Facility (RRF), Lithuania has access to substantial EU funding aimed at facilitating recovery and enhancing resilience post-pandemic. Considering the importance of the implementation of relevant plans and utilization of related funds, compliance audits were conducted on the topics:

- Legality of the implementation of the measures under the objective „Helping businesses to safeguard liquidity“ of the Economic Stimulus and Coronavirus (COVID-19) Consequences Mitigation Plan (2021)
- Achievement of milestones and targets of Lithuania’s Recovery and Resilience Plan (2022).

Furthermore, the compliance audit on risk management for the achievement of the milestones and targets of Lithuania’s Recovery and Resilience Plan is planned to be performed in 2024.

The growing threat from cyber and hybrid attacks requires critical information infrastructure and electronic information to be protected with great responsibility. Taking this into account, a performance audit was conducted on Ensuring cybersecurity (2022).

Acknowledging the relevance of institutional preparedness to respond to emergencies and threats, performance audits were conducted in 2022 assessing the preparedness of institutions to respond to emergencies and ensuring the sustainability of the health system in emergencies. As during the pandemic, about 10% more people turn to medical institutions for depression, anxiety, and severe stress reactions, the assessment on mitigating the consequences of COVID-19 on mental health was carried out.

A safe environment and a healthy society are one of the priority areas the National Audit Office has been focusing on with audits and assessments in 2023 and

2024. The audit topics carried out, centered on this area, vary from strengthening state border security to assistance to refugees and their social integration, from managing the electricity sector, achieving energy independence targets in the transport sector to the host country’s support. Planned for 2024, performance audits are scheduled to commence relating to the implementation of the National security strategy, including administration of the Lithuanian Armed Forces recruitment and conscription as well as training citizens for civil resistance. Incorporating these audits into the audit programme contributes comprehensively to enhancing the country’s readiness to cope with emergencies, external threats, and structural public sector reforms.

Preparedness of institutions to respond to emergencies

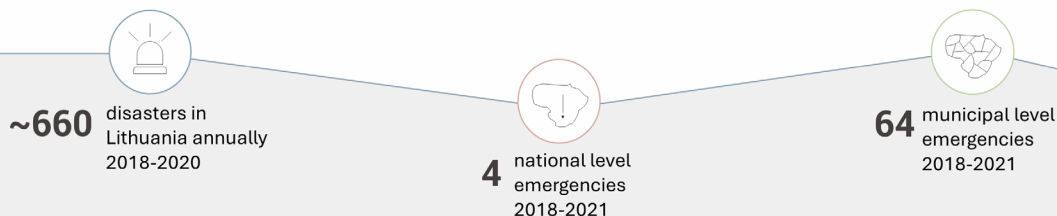
To comprehensively assess institutional preparedness for addressing threats, the National Audit Office of Lithuania carried out the performance audit “Preparedness of Institutions to Respond to Emergencies”. The audit report was issued in February 2022.

The objective of the audit was to assess whether institutions are prepared to respond to emergencies.

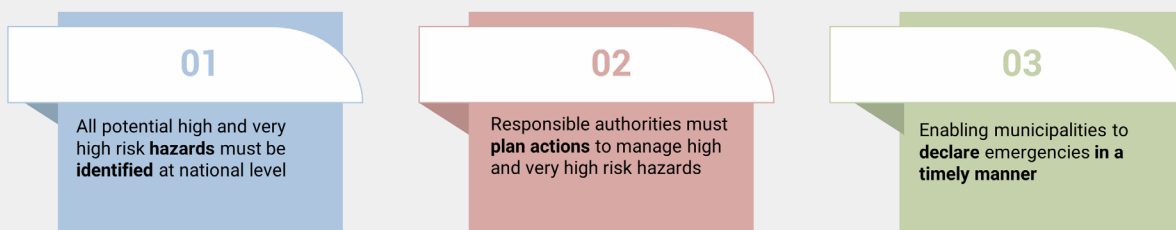
Key audit questions:

- whether the limits of responsibilities of the actors in the emergency management system are distributed.
- whether legal instruments have been created for the adoption of special measures (restrictions) that help to manage emergency situations.
- whether the existing risk analysis system ensures the identification of high and very high-risk hazards that may cause emergencies.
- whether the existing emergency management system ensures that the management of all the possible high and very high risks that may cause emergencies is planned.

EMERGENCIES AND INSTITUTIONS PREPAREDNESS TO RESPOND TO THEM



PREPAREDNESS FOR EMERGENCIES NEEDS IMPROVEMENT:



Key results of the audit: Emergency preparedness needs to be improved due to a lack of inter-institutional coordination, the National Emergency Management Plan does not cover 5 potential high and very high risks identified in the National Risk Analysis, the responsible and supporting authorities do not plan all the actions and measures required to manage emergencies. A clearer legal regulation would ensure targeted and consistent management of these situations.

The audit report highlighted aspects for improvement to achieve better preparedness of the responsible institutions to respond to arising emergencies. The competencies and responsibilities of the institutions coordinating preparedness should be clarified. To ensure the systematic conduct of risk analysis of potential hazards and threats, an institution should be designated to coordinate the conduct of the National Risk Analysis. In order to ensure that appropriate actions are planned for the management of the high and very high risks during

emergencies, it is necessary to anticipate processes for updating and reviewing the State Emergency Plan, and to regulate the assessment of the validity of this situation, enabling to determine whether the actual situation still meets the conditions and criteria for its declaration.

To enhance institutional preparedness, eight audit recommendations in total were provided: 3 recommendations to the Government; 4 to the Ministry of Interior; and 1 audit recommendation to the Fire and Rescue Department. By 2024, four audit recommendations had already been implemented. The new Crisis Management and Civil Protection Law, along with implementing legislation, addresses audit recommendations related to the assessment process for determining emergency compliance with conditions or criteria for declaration, establishing criteria for emergencies and their assessment, and designating authority (the National Crisis Management Center) to coordinate the national risk analysis process.

In performing this audit, various audit methods were used to gather sufficient and appropriate evidence and achieve the audit's objective. Notably, it was important to conduct a survey with all ministries and municipalities, to comprehend the full scope of central and self-government areas. Additionally, it was difficult to align the audit results with the Ministry of the Interior since they were understandably heavily involved in threat management at the moment and unable to allocate significant attention to the audit. Therefore, it was crucial to ensure effective communication during the audit, aligning with understanding the auditees' focus on its urgent tasks and the ability to obtain key information needed for the audit. Furthermore, the engagement of stakeholders was beneficial, for example, interviewing the University Faculty of Law, the Association of Lithuanian Municipalities, a working group that was assigned to develop an effective crisis and emergency management model.

To draw more public attention to the audit findings and to encourage discussion, the Conference "Management of emergencies: good lessons — lessons learned" was organized in cooperation with the Parliamentary Committee on Audit in May 2022. During the conference, the insights of public audits related to emergency and pandemic management were actualized together with politicians, experts in emergency and crisis management, and business representatives. It raised awareness of the audit results and encouraged the active engagement of the Government and audited entities in implementing the audit recommendations.



Name of the SAI: **Portuguese Court of Auditors**

José F.F. Tavares — President

THE IMPORTANCE OF INTERNATIONAL COOPERATION, SHARING EXPERIENCES AND BEST PRACTICES BY SAIS, WHICH INCREASE THE QUALITY OF OUR AUDITS AND THE VALUE FOR MONEY IN PUBLIC RESOURCES USE

SAIs have a fundamental role on auditing the distinct parts of the disaster management cycle, from mitigation, prevention and preparedness to recovery and relief activities, including both national and international actions.

The recommendations of their audits can improve government actions to reduce the risks of disasters and catastrophes, to implement post-disaster measures, and to shape adequate legislative frameworks and information and planning systems.

Audits can also improve the application of humanitarian aid principles, as well as prevent ethical risks and conflicts of interest, enhance transparency and accountability of the use of public resources, and improve the effectiveness, the efficiency, the economy and the equity of its management.

To carry out this mission, it is important to highlight:

- The mandate of the Portuguese Court of Auditors, covering beneficiaries of public funds, independently from their public or private

nature, with a focus not only on the legality and regularity aspects but also on the economical, effective, and efficient use of public resources;

Brief information on the experience of the SAI in the field of disaster audits

As a guide for its audit activities, the Portuguese Court of Auditors included, in its Strategic Plans for the periods 2018–2020 and 2021–2023, an audit priority referring to “How the State, in its different forms, uses public resources in the management and prevention of the risk of disasters and catastrophes, as well as in supporting their victims”.

2017 and 2018 had been particularly relevant as regards wildfires in Portugal, with a significant increase in the burnt areas, multiple destroyed houses and loss of many lives. Additionally, Portugal is at a significant risk of desertification, which relates with the wildfire occurrences as well as with other disaster and serious consequences.

In this context, ‘Tribunal de Contas’ decided to conduct several audits related with wildfires and with desertification.

Some audits covered the design and implementation of policies and plans to prevent identified risks, both at the national and at the local level, others covered the analysis of mechanisms to fight the wildfires and their effects, some looked into the funding mechanisms and there were also audits assessing the actions undertaken to compensate damages. In 2023, ‘Tribunal de Contas’ completed a joint report with the Spanish Court of Auditors about all the undertaken audits concerning wildfires and desertification since 2018, the comparison of their results in the two countries and the follow-up of recommendations¹.

This joint report was presented in the 8th International Wildland Fire Conference 2023², where a panel was also held about the audit experiences of several SAIs in auditing the use of public resources in preventing and fighting wildland fires. The SAIs of Angola, Brazil, Portugal, Spain, USA and the European Court of Auditors participated in this panel.

The strategic audit priority about disaster related issues was then extended to the Covid-19 crisis, which affected the whole world in 2020 and following years. ‘Tribunal de Contas’ conducted several audits on this subject, covering the risks of public management during emergencies³, the public procurement held to fight covid-19, specific public subsidies to support companies and employment, local initiatives and investments, health management of vaccination, testing and global healthcare during the crisis, etc.

To help the European Union (EU) countries and the EU economy to face the serious consequences of

the Covid-19 crisis⁴, the EU provided its Member States with special funding, notably through the RRF (Recovery and Resilience Framework). The funding is now being intensively applied in several countries. Portugal has been a beneficiary, and the Portuguese Court of Auditors is also now in the process of auditing the use of these exceptional funds in several of its audits.

An audit example

Within the group of the disaster related mentioned audits, ‘Tribunal de Contas’ completed two audits, upon request of the Portuguese parliament, concerning support to victims and the revitalization of areas affected by devastating forest fires⁵. The first audit report focused over the use of a special fund set up by the government to manage donations (REVITA Fund) and the second one mainly to public funded mechanisms (“Audit of the use of funds to repair the damage caused to houses by the fires of October 2017 and August 2018”).

Audit topic and challenges

The audit request followed allegations of fraud involving funding for the reconstruction. It was alleged that the fires did not actually affect the houses of some recipients, while others received funds for houses that were not their permanent residence. These allegations actually caused fewer donations in the following disasters.

When designing the audit, the Court decided against adopting a solely compliance-based approach, choosing to leave possible irregularities for investigation by criminal authorities. Instead,

¹ See https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/relatorios-isc/Documents/2023/relatorio_conjunto_tce_tcp.pdf

² See <https://pt.wildfire2023.pt/>

³ <https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/relatorios-oac/Documents/2020/relatorio-oac-2020-01.pdf>

⁴ Later, also the consequences of the war in Ukraine and the energy problem resulting from it.

⁵ See <https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Documents/2019/rel020-2019-2s.pdf> and <https://www.tcontas.pt/pt-pt/ProdutosTC/Relatorios/RelatoriosAuditoria/Documents/2022/rel004-2022-2s.pdf>. Both reports are only available in Portuguese.

the Court chose to assess whether the funds were functioning as adequate instruments to disburse humanitarian aid, and whether the controls in place were effective in safeguarding integrity and compliance and in ensuring accountability. The second audit report also assessed the evolution in the aid provision through the different mechanisms used.

The audits aimed to assess the existing internal control systems, including the management of ethical risks, as well as the compliance, transparency, and effectiveness in the use of the allocated aid resources. In particular, they identified the strengths and weaknesses of the ethics component within the control environment, examining whether it was conducive to identifying and mitigating integrity risks. The audit addressed questions such as:

- How well were integrity risks anticipated and controlled?
- To what extent were managers and staff aware of those risks?
- Were ethical guidelines provided?
- Were integrity safeguards applied (e.g. in the assessment of needs, in the definition of criteria and procedures, in segregation of functions, composition of bodies, collegiality of decisions and verifications undertaken and in identifying and preventing conflicts of interests)?
- Were transparency and participation arrangements sufficient?
- Was there zero tolerance towards unethical behavior?
- Were whistleblowing mechanisms in place?

Applied approaches

To assess the ethics component, the audit team followed the EUROSAI Guidelines on 'Audit of Ethics in Public Sector Organisations'⁶. ISSAIs 5520 — Audit of disaster related aid, and 5530 — Adapting Audit Procedures to Take Account of the Increased Risk

⁶ See <http://www.eurosai-tfae.tcontas.pt/activities/Guidance/Activities/TFAE%20Guidelines%20to%20audit%20ethics/g-english-TFAEGuidelines%20to%20audit%20ethics.pdf>

of Fraud and Corruption in the Emergency Phase following a Disaster, during the audit period (2019–2021) were also essential to guide the audit work⁷.

The audit team used standard audit techniques, such as document and case review, observations, inquiries and interviews, as well as an anonymous survey to capture the perceptions of staff and stakeholders about the ethical behavior of those involved in disbursing the funds.

The audit work was affected by several circumstances which influenced its regular development, namely the multiplicity of entities involved, the high volume of information to be treated, as well as the difficulties in obtaining the necessary evidence, particularly due to the COVID 19 pandemic situation (for the audit of PARHP and 'Porta de Entrada' Programme).

The main results of the audits

Observations, conclusions, and recommendations of the audits included the following aspects:

- ***Lack of a dedicated policy, specific legal framework and provisional planning system for solidarity donations and aid.***

The Court recommended that these measures should be implemented to allow better preparation for future emergencies. They should for instance, define how to objectively assess needs, assign responsibilities taking into consideration the multiple sectors involved, avoid duplication of efforts, engage beneficiaries, and ensure reporting and oversight.

The Court has recently reported that these recommendations have not yet been implemented, preventing pitfalls experienced during the 2017/2018 forest fires from being avoided.

⁷ The referenced ISSAIs have been revised and are now GUID 5330, Guidance on Auditing. Disaster Management, and GUID 5270, Guideline for the audit of corruption prevention.

- **Significant asymmetries in the aid provided.**

The audits focused on the support given to housing reconstruction. However, there were asymmetries in the aid support granted, due to the use of different instruments and rules, as shown in the following table:

Wildfire	Response to housing recovery	Financing	Type of assistance	Number of municipalities involved	Approved support	
					N. of Houses	Amount (€)
June 2017	Revitalization Fund (REVITA) (*)	Public and Private donations	Exceptional, with the aim of managing charitable donations	3	99	3 328 410
October 2017	Permanent Housing Recovery Support Programme (PARHP)	Public	Exceptional and urgent	35	923	61 978 322
August 2018	"Gateway Programme" – Porta de Entrada	Public	Public housing policy measure	1	22	1 172 225
Total				39	1044	66 478 957

(*) REVITA also supported 1130 agricultural producers, for a total value of 3 438 007,76 €.

Only the Programme created in 2018 (Porta de Entrada) is of a permanent nature, aiming to stabilize the applicable rules for future events.

The audits also found asymmetries in the aid provided in different regions of the country, as regards application of criteria, eligibility control and timeliness of support.

- **There were no specific ethical guidelines for the management of donations and aid**, although the general perception surveys indicated that staff were aware of their ethical duties and that they felt free to speak up about irregularities and although reports on irregularities were in fact investigated and prosecuted without obstacles.

The Court recommended that these guidelines are issued as a general guidance before emergencies occur.

- **Management and control systems for the disbursement of funds could have been much more effective to prevent risks of fraud, corruption, or unethical conduct.**

The first audit concluded that criteria to provide aid were not clear enough, integrity risks were not assessed, and staff were not provided with guidance in this respect. Furthermore, no potential conflicts of interest were analyzed, physical verifications were not conducted and procedures and decisions were too concentrated in the offices of local staff and politicians.

In the second audit, the Court found that some of these aspects improved. The criteria were established and better defined in the law, although there were problems in their application. Even though, on-site checks and monitoring were insufficient and only some entities anticipated ethical risks and applied controls to reduce them.

Independence in the assessment of damages and definition of support measures was not sufficiently and uniformly ensured.

The Court recommended that these aspects are carefully considered in future situations.

- ***Transparency and participation mechanisms and practices were not ideal and should be reinforced.***

The Court recommended that those affected should be consulted along the process and that a list of aid provided and correspondent beneficiaries should always be made public.

The public nature of the entities assessed in the second audit ensured more transparency of rules, procedures and criteria, decisions, and accountability. However, the involvement of beneficiaries in the process and the publicity of aid granted and its respective beneficiaries were still insufficient.

- ***There were positive and negative aspects as regards the efficiency and effectiveness in the use of funds:***
 - The risks of overlapping supports were low.
 - Cost compliance with reference standards was ensured.
 - One of the programs (PARHP) met the needs in the two affected regions, and was close to completion, although at different paces and over a longer period than expected.
 - Another one (Porta de Entrada) has proven to be slower and is far from having met the needs.
 - In the Central Region of the country, there is a high volume of undue support to be recovered.

Lessons learned

Auditing the response to emergency is challenging, since we need to understand that authorities have faced completely unexpected circumstances and the absolute urgency of needs. Auditors must find the right balance in reporting what could have been prevented or what could have been done better under the difficult conditions compared to what was actually possible. Public managers are hardly happy with these reports, often feeling that audit judgements are unfair. Thus, a 'lessons learned' approach and a balanced reporting should be kept in mind.

Auditing integrity is also difficult, mainly in an emergency context. Both auditors and auditees often consider measuring cultural aspects and perceptions as subjective. It is important to adopt a positive and interactive approach and to rely on common accepted criteria. One of the key aspects of these audits was to clearly describe the audit criteria and to stress how these are found on international commitments and recommendations.



Name of the SAI: **Tribunal de Cuentas Spain**

Enriqueta Chicano Jávega — President of Tribunal de Cuentas (SAI Spain) Secretary General of EUROSAI

AUDITING THE ADOPTION OF URGENT MEASURES RELATED TO PREVENTION AND EXTINCTION OF FOREST FIRES

Dear colleagues,

I want to congratulate the members of the EUROSAI Working Group on the Audit of Funds Allocated to Disasters and Catastrophes (WGAFADC) for reaching its 10th anniversary. Although being the “youngest” working group in our region, behind this celebration there is a history of commitment, that goes further a decade before being established by the Resolution of the IX EUROSAI Congress. The most significant example of this commitment is SAI Ukraine, that in 2004 drew the attention of SAIs to the threads of disasters and catastrophes, caused by both natural or human sources, and that despite the war situation in their country, has never faltered in its task of chairing the Working Group. A special recognition and appreciation to our Ukrainian colleagues must preside these lines.

But there is also a successful history of experience and knowledge sharing in the trajectory of the WGAFADC so far. Precisely, in March this year, during the meeting “*Climate Scanner Global Call: Engaging Supreme Audit Institutions in assessing national climate action*”, an event jointly organized by the United Nations Department of Economic

and Social Affairs (UNDESA) and the Federal Court of Accounts of Brazil and Presidency of INTOSAI, that took place in the headquarters of UNDESA in New York, I had the opportunity to address the international community of SAIs about the works of the WGAFADC, as one of the EUROSAI structures whose scope includes, among other matters, the audit response to adaptation to climate disasters.

For this special publication of the 10th Anniversary, whose conducting theme is the prevention and liquidation of consequences of disasters, I am glad to present the main features of the audit work recently done by Tribunal de Cuentas (SAI Spain) on the urgent adoption of measures related to forest fires.

Forest fires periodically reoccur as they are inherent to forest ecosystems, but they affect tens of thousands of hectares each year, posing an important environmental problem with serious ecological, economic and social effects, as well as in terms of personal safety. Although this is a worldwide challenge, it is particularly relevant in especially vulnerable areas, such as the Iberian Peninsula, where the risk of desertification is a phenomenon intensely relevant due to climatic and environmental conditions that is worsened by fires.

In summer, 2022, a significant increase in the number of large forests fires (known in Spanish as GIF-*Grandes Incendios Forestales*) triggered an emergency situation in Spain and sparked social alarm across the whole country. The Spanish Government passed regulations aimed to the adoption of urgent measures related not only to extinction, but also to prevention, maintenance and restoration of affected forest lands. Our SAI considered relevant to carry out an “express audit” to review the fulfilment of the provisions of the new regulations and, if so, to encourage the adoption of appropriate measures before the start of the 2023 risk period. Most significant results, lessons learned, and recommendations, are briefed in the following sections of this article.

But before entering into matter, I want to wish the EUROSAI WGAFADC many more years of success, leading by example in the fulfilling of its goals. These enrich the EUROSAI community and make us proud of our collective engagement with our stakeholders and, ultimately, our citizens.

Auditing the implementation of urgent measures related to forest fires: Why has SAI Spain carried out this audit?

As mentioned above, GIFs, that are defined as those exceeding 500 hectares, caused an emergency situation in Spain in summer, 2022. More specifically, 56 GIFs were registered (18 in 2021) and a total forest area of 267,947 hectares was affected. Compared to the 85,369 affected hectares in 2022, this meant an increase of 214%.

Furthermore, year 2022 showed not only a worrying increase of GIFs and burnt surfaces, but also represented the worst figures of the last 10 years in terms of affected surface and number of fires.

This was no doubt an emergency situation, mainly caused by three heat waves with ground temperatures above 40° Celsius along with a dry hydrological year.

To alleviate its effects, the Spanish Government passed regulations aimed to adopt urgent measures on forest fires, to come into force immediately and introducing amendments to Forestry Law 43/2003,

of 21 November, in the areas of prevention, extinction and maintenance and restoration of affected forest lands.

Why is the audit matter relevant?

The new regulations granted the Autonomous Communities (aka regional governments) a five-month period to adapt their Prevention, Surveillance and Extinction services and Plans to the provisions of the aforementioned dispositions.

Forest fires’ spread, frequency and intensity need to be controlled, and solutions do not consist only in reforestation but rather in undertaking preventive planning. With these in mind, the audit would not only assess the level of fulfilment of the emergency regulations but also encourage, if appropriate, their implementation before the next high-risk period (summer 2023).

Type of audit and its scope

Our SAI considered it advisable to carry out an “express audit” in the Autonomous Communities without specific regional external audit body that presented the highest percentage of fires. The audit goal would be to review the fulfilment of the provisions of the new regulations and, if so, to encourage the adoption of appropriate measures.



These were the Autonomous Communities of Cantabria, located in the north of Spain, and Extremadura, in the southwest, bordering with Portugal (see the adjoined map, that has been extracted from the report).

The geographical continuity among Spain and Portugal

Although it is not the scope of this audit, the existence of a geographical continuity in the ecosystems of Spain and Portugal is an obvious fact, especially in border areas like Extremadura, with common problems related to desertification, which are intensified by the effect of climate change. In turn, Spain and Portugal are two of the countries with the highest incidence of fires in the European Union and have suffered in recent years very violent episodes of the so-called “new generation” fires, characterized by an extremely intense and damaging fire evolution.

Fires do not respect borders and there is long lasting strong cooperation among the two countries. And also among their SAIs. In May, 2023, Tribunal de Contas (SAI Portugal) and Tribunal de Cuentas (SAI Spain) have presented a Joint Audit Report on the measures against desertification and prevention and extinction of fires in the Iberian Peninsula. This report, although not the focus of this article, deserves a special mention, as it is the result of a coordinated work that started in 2018, with the signature of the co-joint *Declaration of Trujillo*, aimed to deepen in bilateral cooperation in the scope of the SDGs, that was embodied in the selection of SDG 15 *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*.

With regard to fires, this joint report highlights the relevance of the quality of intervention, particularly at the initial attack and the widened attack (a strategy against fire consisting of sustained and prolonged attack in case of unsuccessful initial attack), and the great benefit of fluid cooperation among both countries. Furthermore, the report also highlights the relevance of municipalities in the forest defense and recommends both governments to keep on modernizing and improving cooperation, procedures and means to fight against fire.

At the bottom of this article, the QR to access the audit document with the Spanish results is included.

Assessment of the preliminary scope and results

One of the first audit works was the analysis and comparison of the distribution of fires along the time, the affected forest areas; and the causes of forest fires in both Autonomous Communities. The findings in brief, were that:

- the situation in the Autonomous Community of Cantabria did not correspond to the emergency scenario for the 2022 summer, under which the Government regulation- Royal Decree-Law 15/2022-, was approved, since no GIFs were recorded. Furthermore, the forest fires during the decade were concentrated in the months of February to April instead of summer months, and almost all of them were intentionally set for livestock farming reasons (e.g. to regenerate pastures and to prevent the scrubbing of the land).
- Extremadura, however, concentrated the highest incidence of forest fires during the summer, especially in August and, although the most significant cause was intentionality (57% of fires during the decade), fires due to accidents and negligence, that were almost non-existent in Cantabria, represented a significant 33%. Year 2022 was particularly hard, with four forest fires (the highest number in the ten-year series).

Conclusions and recommendations regarding implementation of emergency measures

The level of implementation of the measures established by the new regulations was uneven and showed correlation with the impact of the emergency situation. Although none had completely fulfilled their implementation, Extremadura had a higher rate of accomplishment. Consequently, the recommendations were also of different intensity regarding encouragement for each Autonomous Community.

Furthermore, it was assessed that none of them had received additional funding from the State to implement the measures, nor had they allocated any specific funds for this purpose beyond those initially foreseen in the Communities' own budgets.

Going beyond, there has been another audit focused on Extremadura...

Taking into account the results of the formerly mentioned report, the Autonomous Community of Extremadura was also the subject of an in-depth audit that, now descending to the municipality level, was performed in order to assess the municipalities' evaluation and further implementation of preventive and extinction fires' plans.

One of the results of this audit was the different degree of development of local plans of action, probably conditioned by the small dimension of most of the municipalities and that, although there had been assistance from the regional government, it had not been enough.

Another relevant finding was the insufficient citizenship's awareness on the issue, along with the need to encourage the role that citizens can play in the fight against forest fires.

... and the central Government also implemented additional measures.

In December, 2022, the Spanish Government approved the *Spanish Forestry Strategy- Horizon 2050* as well as the *National Forestry Plan*. These documents not only meant an updating of the already existing planning instruments to prevent fires and fight against them, by introducing improvements, but introduced new aspects that constitute a significant innovation. The document is structured into twelve general objectives and 289 measures.

Furthermore, the Plan envisages that the General State Administration will allocate MEUR2,625 from the State Budgets over the next ten years.

As a general conclusion

Spain will continue to be recurrently in the group of countries in Europe and the Mediterranean basin with a higher incidence of forest or rural fires, especially in the summer period. To counteract

this situation, it remains a challenge to act on the factors that favor the occurrence and spread of these fires and to develop a response to the challenge of the new generation fires, both in terms of prevention and suppression. New planning and reinforcement activities have been put in place, many as a consequence of the 2022 crisis situation. Nonetheless, there is still room for improvement, and enhancing the measures requires updated statistics and data, as they are essential to correctly assess the causes of fires and affected surfaces. Sufficient funding is also essential, as well as coordination at every level of the public administration and along with our neighbors. And last but not least, citizenship's awareness and collaboration becomes essential to boost the efforts in both preventing and fighting against fire

For further information...

Audit reports of Tribunal de Cuentas are uploaded in full length in the SAI's website (www.tcu.es), once the Board of Members approves them, along with a summary that, in the near future, will also be provided in English. For the time being, the reports can be consulted in Spanish using the browser or capturing the QRs that you can find at the bottom of this article.

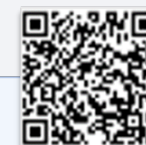
Report on the Express Audit about urgent measures related to forest fire. Extremadura and Cantabria



Report on the action plans in case of forest fire of municipalities of the Autonomous Community of Extremadura (financial year 2022)



Audit Note on the update of the audit works related to fight against desertification and fight against fires





EUROSAI

Working Group on the Audit of Funds
Allocated to Disasters and Catastrophes



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