STATE AUDIT OFFICE OF GEORGIA

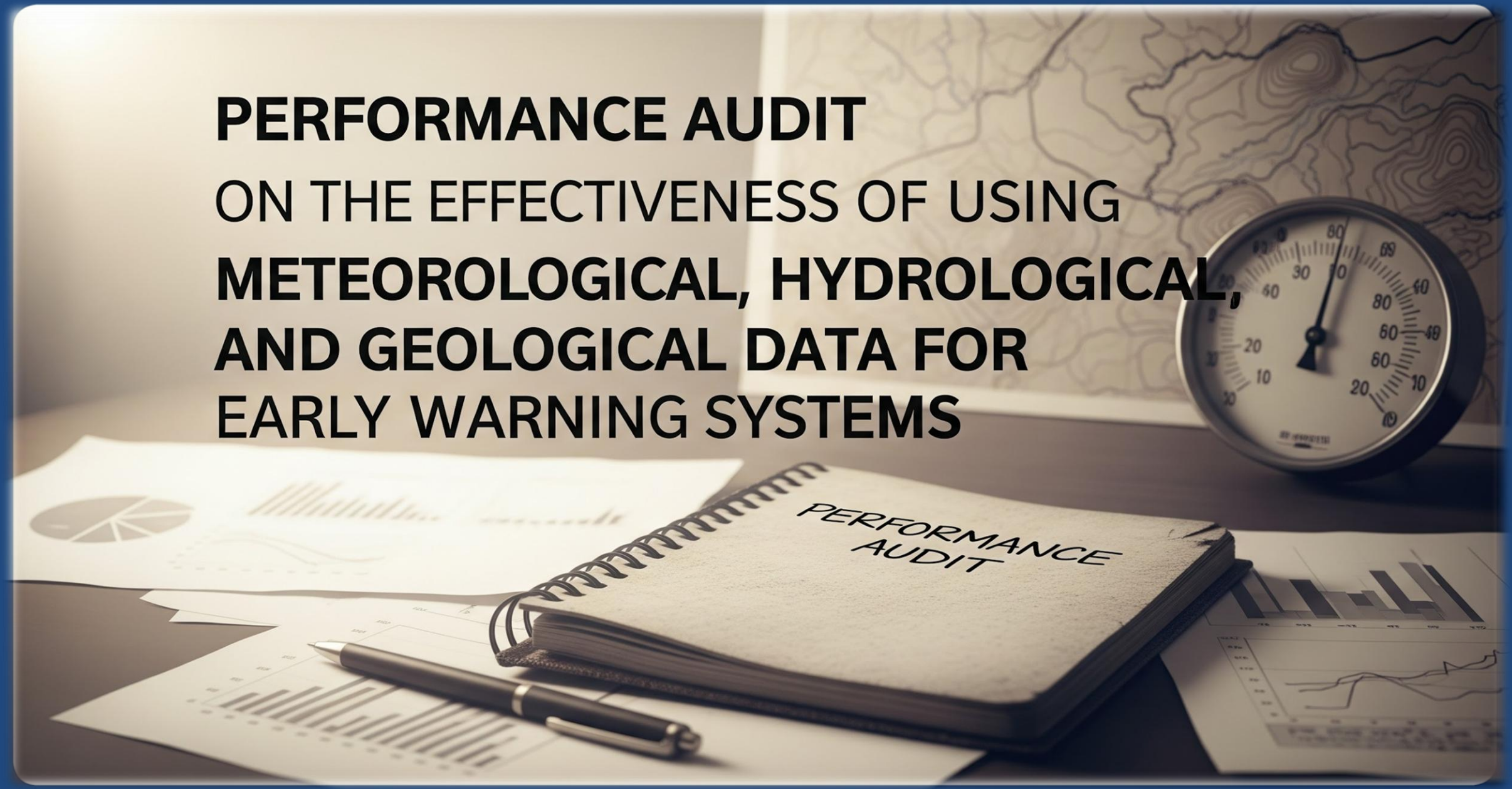
Insights from Georgia's Performance Audit on Early Warning Systems

Tbilisi, Georgia. October, 2025

PERFORMANCE AUDIT

ON THE EFFECTIVENESS OF USING

METEOROLOGICAL, HYDROLOGICAL, AND GEOLOGICAL DATA FOR EARLY WARNING SYSTEMS



Audit Motivation: High Risk Environment

- Global trends show that intensified natural processes and human activities have significantly increased the frequency and scale of natural disasters, along with the resulting human and material losses.
- Georgia is highly vulnerable to hydro-meteorological and geological disasters, including avalanches, landslides, floods, droughts, hail, strong winds, erosion, and wildfires.
- **Data confirm a growing trend in geological and hydro-meteorological events in Georgia from 2018 to 2023**

Audit Objective, Approach, and Methodology

- The performance audit was conducted in compliance with International Standards of Supreme Audit Institutions.
- **Main Goal**: To determine whether the necessary prerequisites exist for ensuring the use of hydrometeorological and geological data for early warnings (EWS).
- **Approach**: System-oriented, focusing on the governmental system addressing public problems rather than a single agency

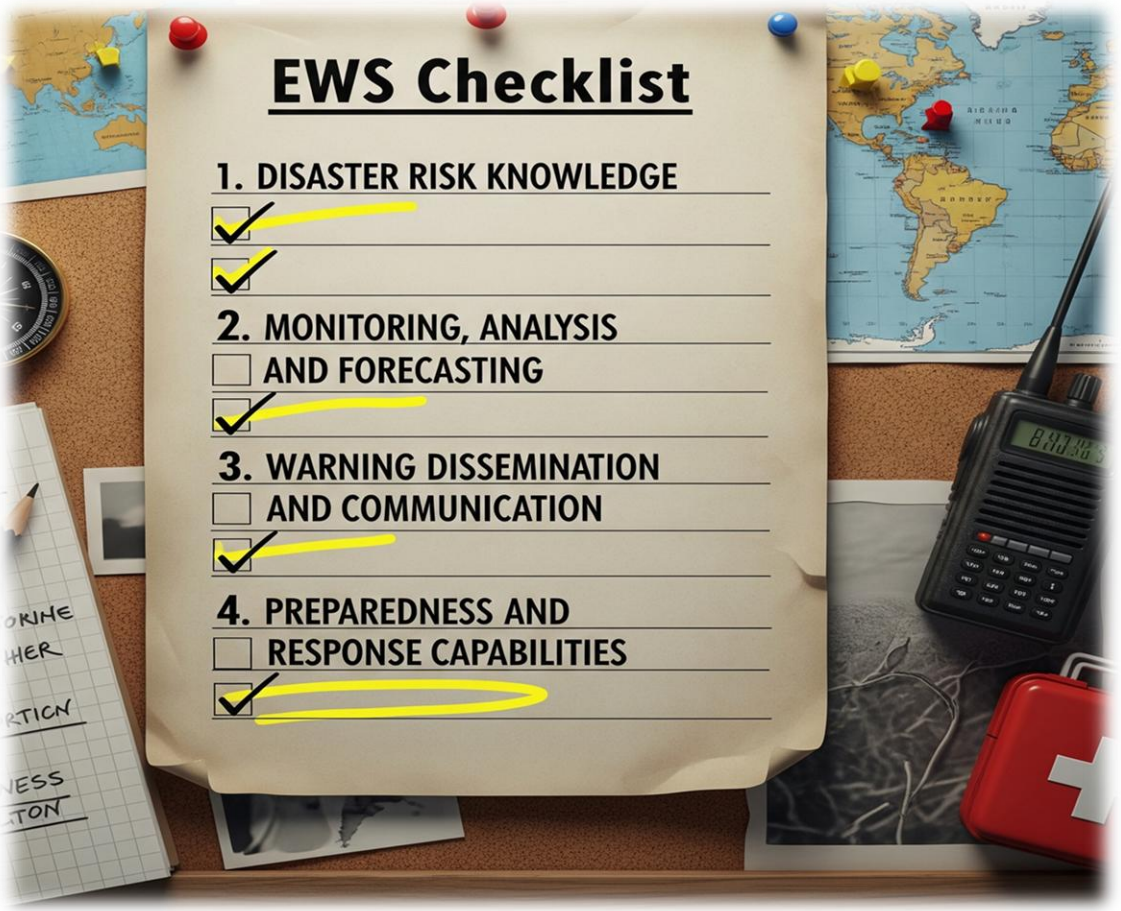
Main Audit Question and sub-questions

Are there appropriate prerequisites to ensure the use of hydro meteorological and geological data for early warnings?

- Are the roles and responsibilities of the Early Warning System (EWS) subjects sufficiently and clearly defined?
- Are there established communication processes between government agencies, experts in the field, and local populations regarding hydro meteorological and geological data, to ensure effective early warning?
- To what extent is hydro meteorological and geological information used by local self-governments for implementing their powers?
- To what extent are early warnings based on hydro meteorological and geological data appropriately supplied to stakeholders?

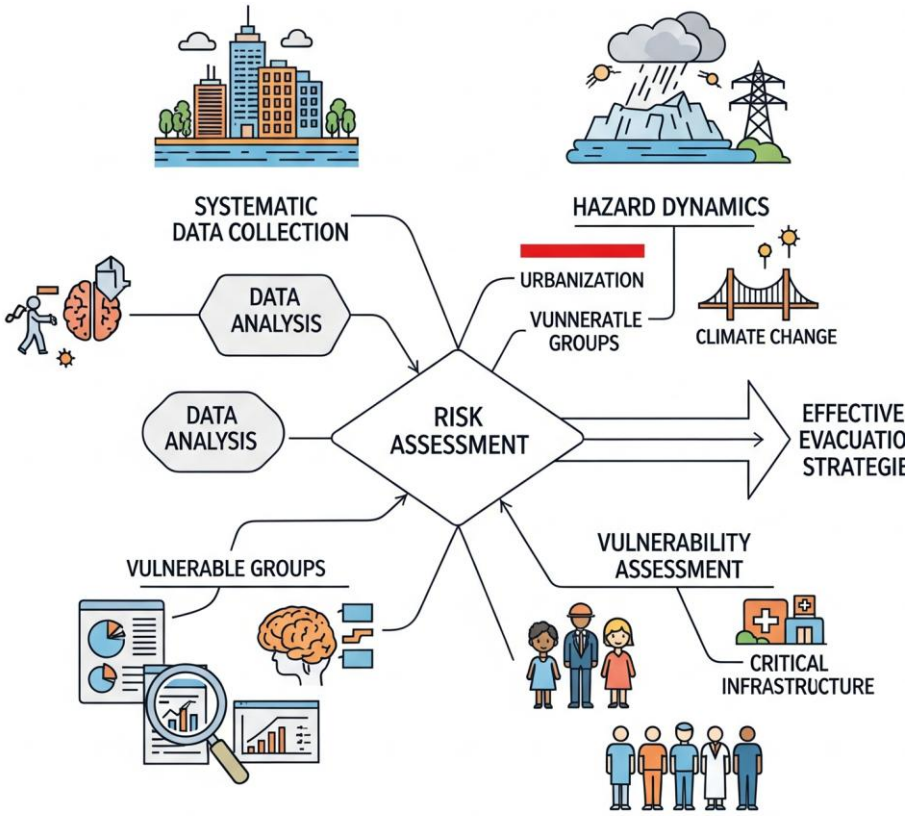
Key Audit Criteria: The Human-Centered EWS

Criteria were based on the **EWS Checklist**, structured around four core elements of a human-centered EWS:



EWS: Disaster Risk Knowledge

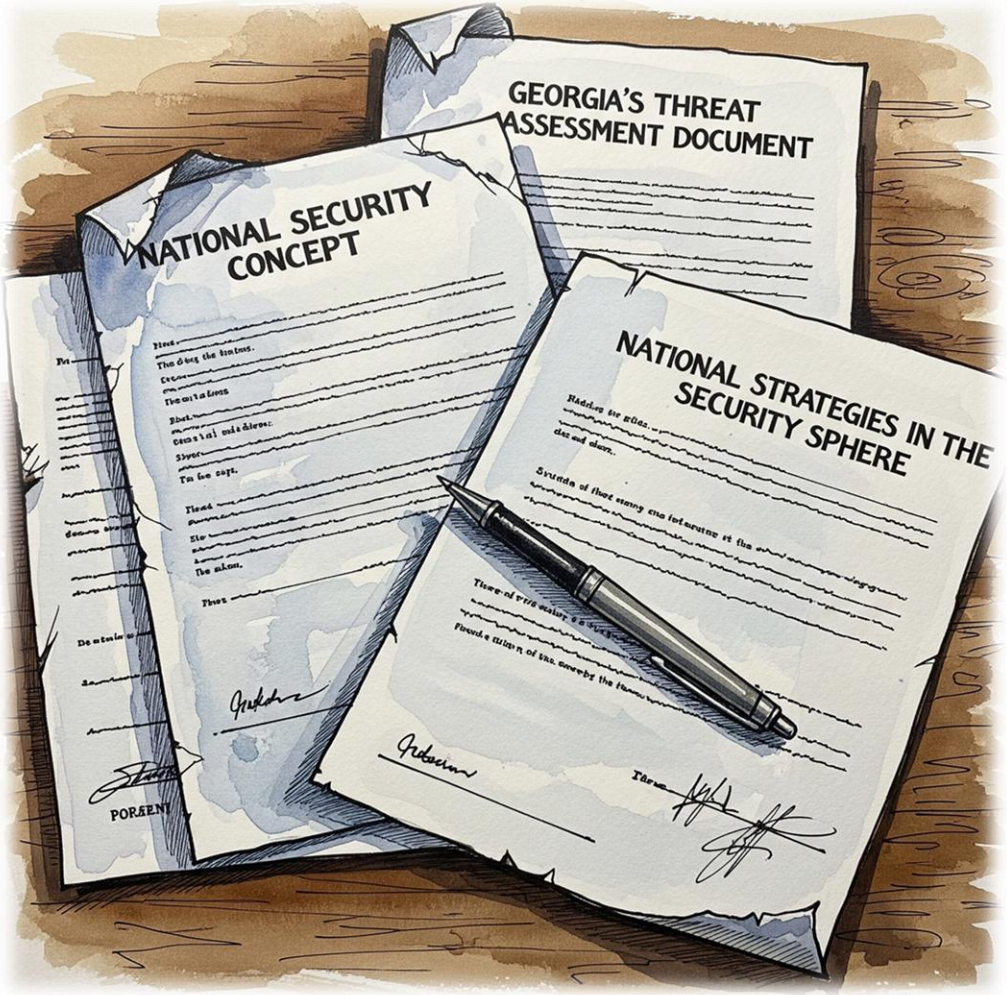
- Risk assessment requires systematic data collection and analysis, considering the dynamic nature of hazards and vulnerabilities (e.g., urbanization, climate change).
- This knowledge is crucial for identifying vulnerable groups and critical infrastructure, and establishing effective evacuation strategies.



Audit Scope and Key Stakeholders

Finding 1: Conceptual Governance Documents Missing

- **National-level conceptual documents are not developed or updated**.
- These include:
  - **The National Security Concept**
  - **Georgia's Threat Assessment Document**
  - **National Strategies in the Security Sphere.**



Impact of Missing Strategy

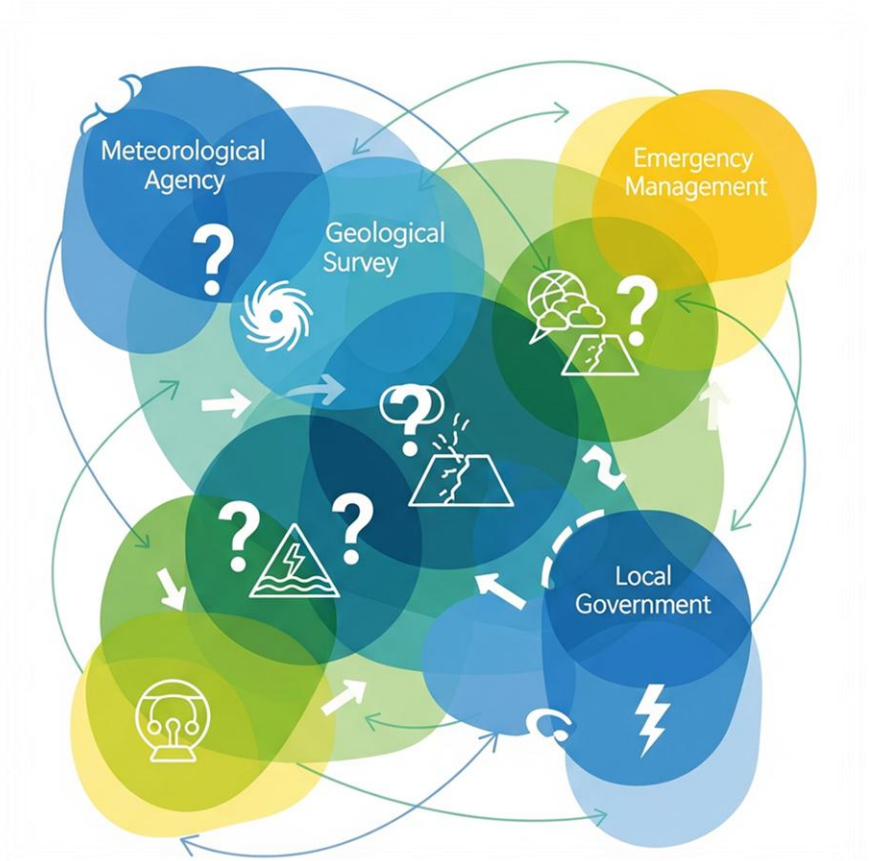
- The absence/lack of updates in these foundational documents **impedes the effective functioning of the EWS** and the overall national civil safety system.
- Specifically, the **DRR Strategy** (Catastrophe Risk Reduction Strategy) and its action plan have not been updated since 2020.

Finding 2: Outdated National Civil Safety Plan

- The current version of the **National Civil Safety Plan is outdated** (approved 2015).
- Powers are outlined for organizations that have since been abolished, reorganized, or operate under different names.
- This creates a risk of **ineffective cooperation** among system subjects during emergencies.

Finding 3: Ambiguous Roles and Overlapping Functions

- Functional analysis revealed **overlapping responsibilities (functional ambiguity)** among EWS subjects.
- There is no clearly defined agency responsible for identifying, analyzing, and assessing hazards and risks caused by natural factors.
- For instance, EMS (mandated for risk identification) stated it does not identify natural risks, viewing its role as coordination.



Finding 4: Absence of Integrated Framework and Database

- **Georgia lacks an integrated and comprehensive framework** that defines the roles, responsibilities, and relationships of EWS subjects.
- Critically, there is no centralized **information base** for assessing natural disasters, hazards, and risks.
- This institutional gap prevents clear delineation of specific responsibilities

Finding 5: Lack of Local Preparedness Plans

- **Municipalities have not developed and approved Emergency Situation Risk Management Plans**, despite a government requirement to do so by December 2018.
- This omission stems from the lack of a comprehensive legal framework defining municipal involvement in EWS functioning.

Finding 6: Insufficient Municipal Data Use

- Local self-governments **insufficiently use hydro-meteorological and geological data** for informed decision-making.
- There is no formalized or consistent practice for using this data.
- This lack of formality and consistency leads to inadequate assessment of natural disaster risks and uninformed decisions at the local level.

Finding 7: Missing Expert Cooperation Mechanisms

- There are **no formalized documents, communication protocols, or memorandums** governing cooperation and information exchange between municipalities, NEA, EMS, and scientific/technical experts.
- This **institutional coordination gap** hinders efficient communication, delays information exchange, and results in the lost opportunity to utilize scientific and technical knowledge crucial for effective EWS functioning.

Finding 8: Flaws in Warning Dissemination

- **A reliable process for delivering EWS notifications to interested parties and the public at risk is missing.**
- NEA provides warnings via email and SMS, but internal feedback showed recipient databases are often outdated, and warnings are often treated "for information only," not leading to concrete action.

Finding 9: ICT and Telecommunication Gaps

- **Georgia lacks a unified centralized ICT system and a National Emergency Telecommunication Plan**.
- This absence, partly due to the lack of a comprehensive legal framework addressing ICT importance, prevents the efficient delivery of warnings using diverse communication channels.
- The lack of a unified system weakens EWS effectiveness and hampers effective disaster management.

Finding 10: SDG Responsibility Ambiguity

- The critical SDG task regarding climate-related extreme events and early warning provision (Global Task adapted by Georgia) currently lacks a defined lead agency.
- The agency originally designated (State Security Council Apparatus) no longer exists under that name, creating a risk that this crucial objective will not be implemented efficiently.

Overall Conclusion

- The necessary prerequisites for the effective use of hydro-meteorological and geological data for early warnings **are not sufficiently established**.
- The system's effectiveness is negatively impacted by the absence of foundational legal/conceptual documents, blurred responsibilities, and poor coordination.

Recommendation issued by SAI Georgia

- The SAI Georgia recommends that the **National Security Council**:
  - **Organize and coordinate the preparation of the National DRR Strategy**.
  - **Ensure the development of the Statute of the Notification System** (integrated and comprehensive EWS framework document).
  - This framework must clearly define the **roles, responsibilities, cooperation, and coordination mechanisms** among all EWS participants.

THANK YOU!

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