

Civil protection and disaster risk management in Greece.

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Climate Change & Disaster Risk Management

Climate change drives disaster risk by

- ❑ affecting vulnerability to hazards,
- ❑ altering the frequency and intensity of hazards

To enhance resilience and **reduce disaster risk** we need to:

- ✓ **reduce vulnerability**,
- ✓ **increase the capacity** of systems to adapt



The Ministry for Climate Crisis and Civil Protection (MCCCP) makes concrete efforts to implement a **holistic disaster risk management (DRM) approach**, focusing more strongly **on prevention, governance** of disaster management, **preparedness & response**.

In Greece within 3 years, wildfires have burned more than 368.000 ha, and floods affected directly more than 8.500 people, left more than 40.000 businesses and 12.000 households in need of recovery.

The economic consequences of natural disasters in Greece attributed to climate change, recorded a cost of 3.5 billion euros approximately from 2016

Institutional Framework - Civil Protection

2020: National Crisis and Risk Management Mechanism Nat-CHAMM> operational and administrative structure of Civil Protection

- ✓ Appoints the GSCP as the authority responsible for the coordination and management of CP authorities and actors in all phases of the DRM
- ✓ Establishes the Hellenic Fire Corps (HFC) as the authority in charge of planning and conducting fire extinguishing operations



Institutional Framework - Civil Protection

The main authority responsible for the DRM having the leading role in the operational response to natural disasters, in planning for preparedness and recovery, established in 2021:

Ministry for Climate Crisis and Civil Protection (MCCCCP)

National Observatory for Adaptation to Climate Change

General Secretariat for the Recovery from Natural Disasters and State Aid (2023)

National Council for Adaptation to Climate Change

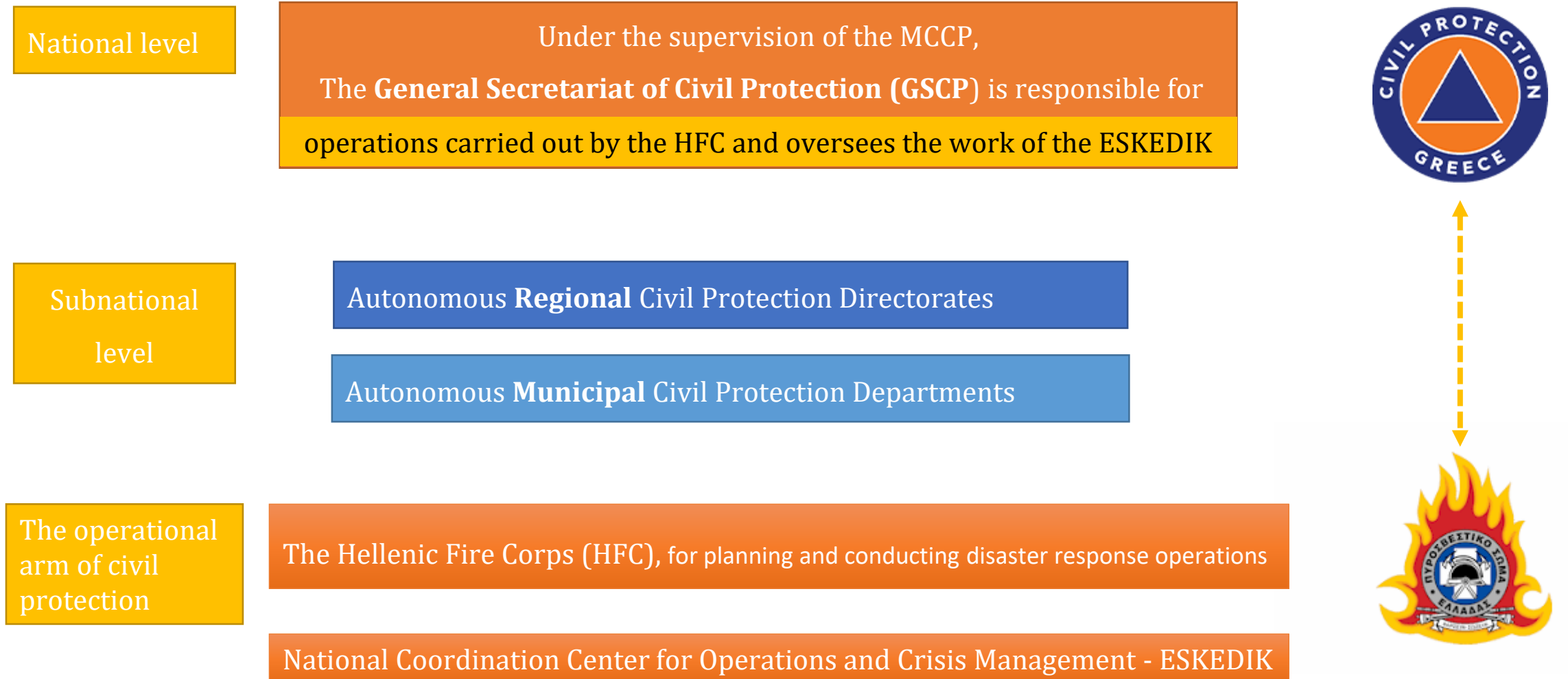
General Secretariat for Civil Protection (GSCP)

✓ Compensation process is managed by the MCCCCP



Institutional Framework - Structure for Disaster risk management

→ Disaster risk management is shared by all levels of governance, national, sub-national and local.



Institutional Framework – Structure for Disaster risk management



The Hellenic Fire Corps (HFC): top-down organization structure

National
level

Headquarters (Chain of Command)

General Inspectors (2)

Operational Coordinators (6)

The Hellenic Fire Corps operates

8 Special Disaster Response Units (EMAK)

20 Special Forest Fire Operational Units
(EMODE)

Subnational
level

Operational Coordinators Regional Fire Administrations (13)

Prefecture Fire Service Administrations (54)

Local level

Local Fire Services and Stations (127)



*Firefighter of the Special Forest Operations
Unit (E.MO.D.E.)*

CHALLENGES



Natural Risks: Earthquakes, wildfires, floods, storms

Technological: Industrial accidents, hazardous materials

Biological: pandemics, public health crises



❑ Resilience must rely on: Science, Data, Inclusivity.

❑ Research and innovation need support, alongside knowledge-sharing and continuous learning.

Opportunities

Holistic Disaster Risk Management Approach



Investments for climate change adaptation & DRM

Whole-of-society-approach



Sendai Framework

1. Understanding disaster risk
2. Strengthening disaster risk **governance** to manage disaster risk
3. **Investing** in disaster risk reduction for resilience
4. Enhancing disaster **preparedness** for effective response



- ✓ Use of advanced science & technology to enhance **prevention** and optimize disaster risk management
- ✓ Strategic Digital Transformation Plan

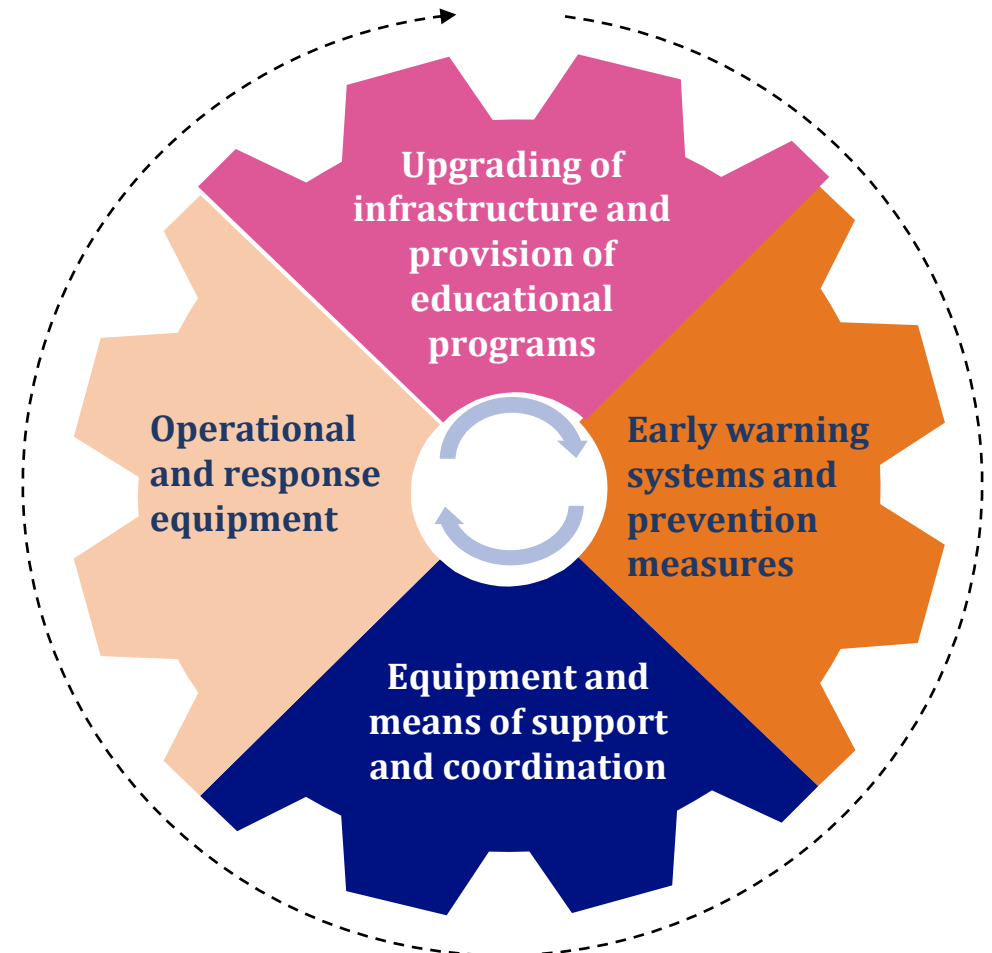
STRATEGIC PLAN : Policy Coherence between Disaster Risk Management and Climate Change Adaptation

- ✓ The Establishment of the Ministry and adoption of the National Climate Law (2022) demonstrate the efforts for a comprehensive and holistic approach, covering the whole DRM and considering climate change as one of the main challenges.



The operational model of **Nat-CHAMM**

4-pillar Disaster Risk Management System



The **MCCP** develops and implements

4-pillar Intervention Measures

PREVENTION – STAKEHOLDERS & ACTIONS



ANTINERO Forest Protection Program – Firebreaks in Fthiotida



Prescribed burning in a Greek Island.

Source: International Association of Wildland Fire, after DG-ECHO.

Ministry of Environment and Energy (MEE) and MCCP: Responsible for wildfire prevention strategies and protection plans. **ANTINERO** program: management of fuel loads over 80.000 ha. Forest cleaning, maintenance and improvement of Fire Protection Zones (Firebreaks), opening 12.000 km of forest roads & 1.600 km of buffer zones. Testing new practices in fuel and ecosystem management. Institutionalization of controlled fire method.

Forest Services (MEE): Responsible for implementing clearing operations and managing vegetation (e.g., creating firebreak zones).

Local Authorities: fire protection actions within their jurisdiction, develop public awareness and environmental education programs.

Ministry of Culture: Conducted clean-ups at archaeological sites in Greece. +MCCCP creating firebreak in 11 archaeological sites.

Electricity Transmission and Distribution Network Operators: Conducting vegetation clearing works around electricity infrastructure.

PREPAREDNESS- STAKEHOLDERS



Personnel and Equipment of the Hellenic Fire Service

Preparedness

Disaster Risk Management System

- MCCCP/GSCP: For designing and organizing the national Civil Protection at the legislative, administrative, and operational levels (e.g., Law 4824/2021: Restrictions on activities that could cause fires, administrative sanctions for violating regulations are placed). GSCP drafts hazard-specific plans (e.g., the **General Emergency Response Plan for Wildfires “IOLAOS 2”**, the Guidelines for the Organized Evacuation), and issues the daily **Wildfire Forecast Map**.
- Hellenic Fire Corps: For conducting firefighting, search and rescue operations, for **training personnel** and ensuring operational readiness in accordance with the relevant response operational plans.
- HFC and GSCP: Operational wildfire exercises in all Regions. Preparedness and organized preventive evacuation drills in high-risk areas, and archaeological sites.

RESPONSE- STAKEHOLDERS



Disaster Risk Management System

- Hellenic Fire Corps: Exclusive operational responsibility for the suppression of wildfires among other hazards. Its forces include **ground firefighting teams** and **aerial resources** (e.g., airplanes, helicopters).
- National Coordination Center for Operations and Crisis Management ESKEDIK: Coordinates all actions in the case of natural or manmade disasters and cooperates with other agencies
- EU Civil Protection Mechanism: Provides support through joint actions, deployment of professional firefighters and supply of equipment in large-scale incidents.



- **General Secretariat for the Recovery from Natural Disasters and State Aid/MCCP:** Coordinates State Aid programs aimed at supporting citizens-businesses affected by natural disasters.
- **Ministry of Environment and Energy:** Responsible for the restoration of ecosystems and the management of affected areas, primarily through the rehabilitation of forested regions.
- **Ministry of Rural Development and Food:** Involved in the recovery of agricultural land and livestock farming.
- **Local Authorities:** Contribute to the restoration of infrastructure and the support of affected citizens.
- **European Union:** Supports funding for recovery projects.

Bilateral agreements and/or memorandums of understanding have been signed with Portugal, Bulgaria, Cyprus, France, Israel, Malta, the Russian Federation, Ukraine, the USA, and Turkey.



➤ **Regional agreements** in force include:

- Black Sea Economic Cooperation (BSEC),
- EUR-OPA Major Hazards Agreement,
- Memorandum of understanding in humanitarian emergency response (**UN**, Greece and **Turkey**),
- Protocol in Preventing Pollution from ships and, in cases of Emergency, Combating Pollution of the Mediterranean Sea
- Convention on the Trans-boundary Effects of Industrial Accidents.

✓ **Bilateral Agreements** in force:

- Memorandum of Understanding on Cooperation in the Field of Civil Protection between the Government of the Hellenic Republic and the Government of the Republic of **North Macedonia** (signed in 2021)

✓ **Multilateral Agreements** in force:

Memorandum of Understanding of Cooperation among the Islamic Republic of **Iran**, Republic of **Armenia**, and Greece on Issues of Risk Management of Technological and Natural Disasters, Health & Environment

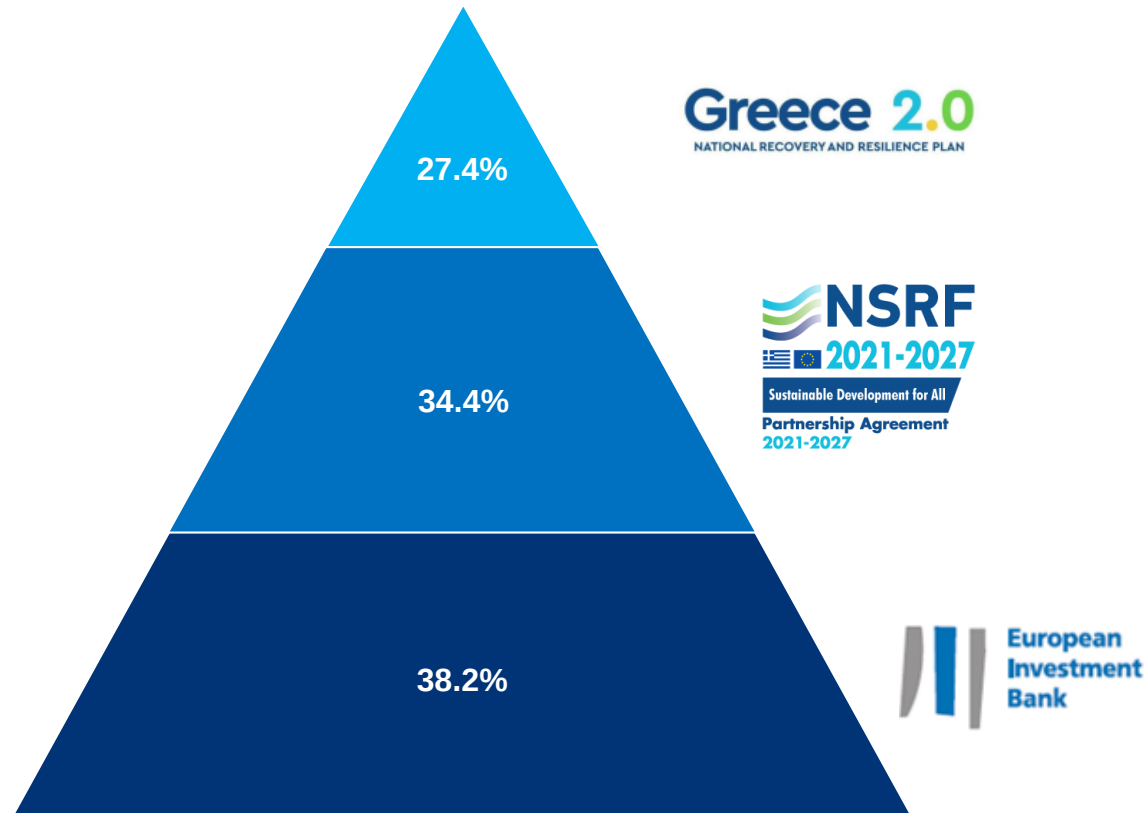
STRENGTHENING THE CIVIL
PROTECTION MECHANISM

THE NATIONAL PROGRAM "AEGIS"



The funding sources of the national Civil Protection program “AEGIS”

The program is financed by three funding sources:



The National civil protection program “AEGIS”

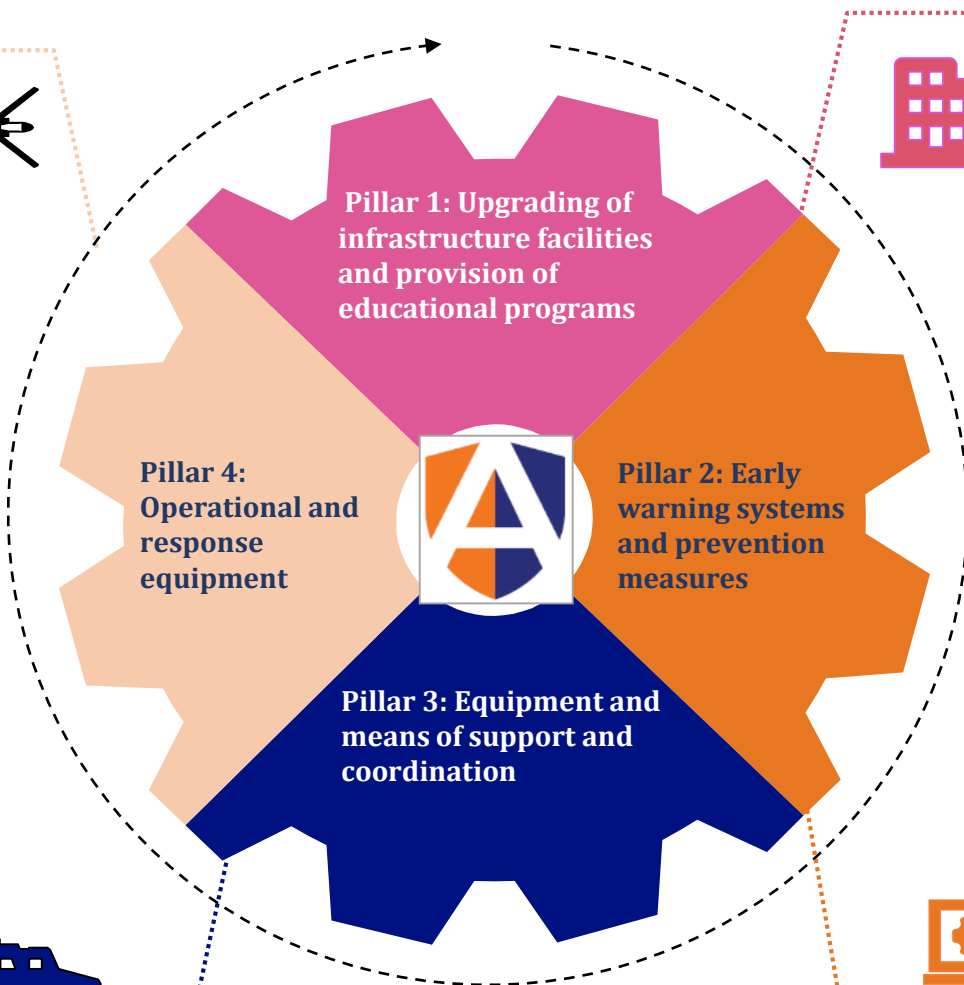
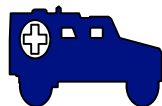
Includes 41 projects with a total budget of approximately 2,1 €

Intervention pillars

The operational component of the **armed forces engaged** in addressing the consequences of disasters



Actions carried out in the field of operation for **organizing, communicating and coordinating action groups**



Establishment of structures and coordination mechanisms for all levels of administration, as well as **collaboration with academic centers** to enhance DRM and CCA

Strategic Digital Transformation Plan considering adaptation



Actions include the installation and operation of **prevention & early warning systems**.

“AEGIS” – Early warning systems and prevention measures

Pillar 2

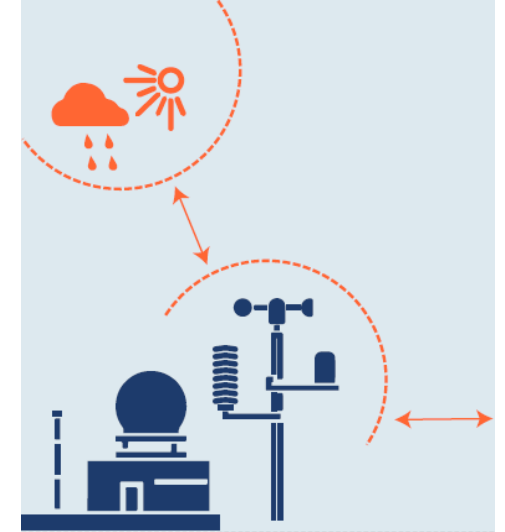
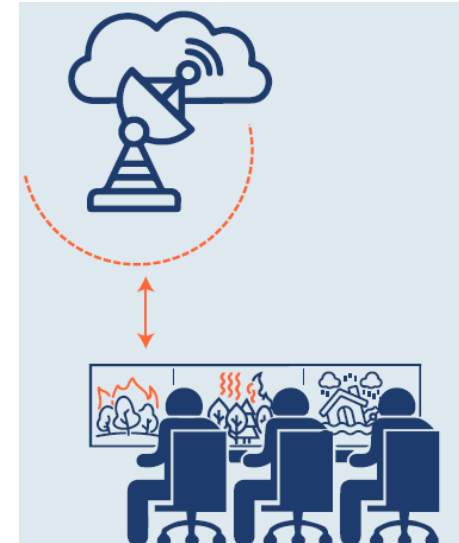
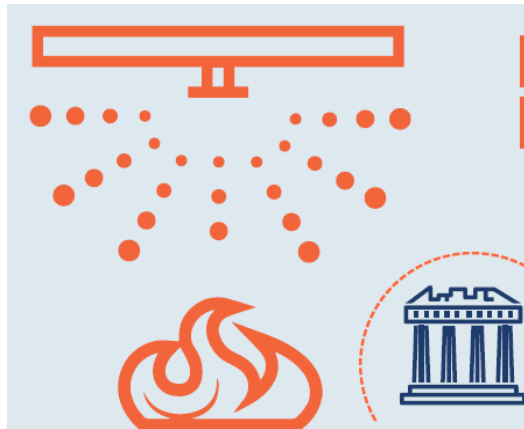


Strategic Digital Transformation

Supply of early warning systems for natural and man-made risks

Meteorological radar system for severe weather events

AI-based Fire detection and fire extinguishing systems



Civil Protection Digital Applications

- Volunteer coordination
- Rapid damage assessment for rapid compensation payouts
- Restoration and compensation for natural disasters



“AEGIS” – Early warning systems and prevention measures

Pillar 2



Strategic Digital Transformation

Establish National wireless communication system (Nat-CHAMM)

Upgrade/Integration of Next Generation 112 Technologies

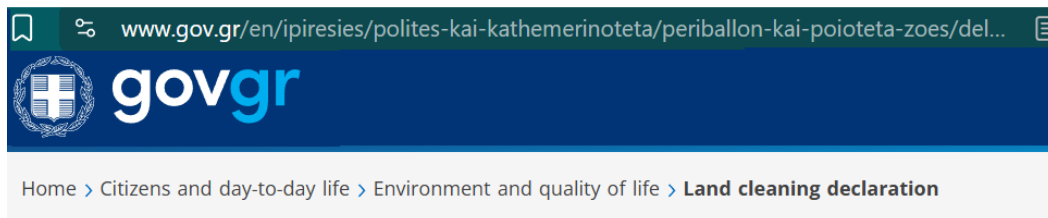
- Support **incoming communications** for the European Emergency Number 112.
- Upgrade of services for **people with disabilities**
- Strengthened **coordination among involved authorities** by adopting next-generation technologies



E- learning and public awareness platform

E-platform “Register of Preventive Fire Protection Measures”

Citizens declare that they have carried out the mandatory clearing of flammable material from their land. Fines if failure to declare (Law 5075/2023)



Land cleaning declaration

“AEGIS” – Equipment and means of support and coordination

Pillar 3



Equipment and means of support and coordination

Indicative

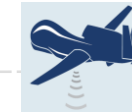
1

Supply of 3 Twin-Engine **Airplanes** as Aerial Operations Centers, AND surveillance



2

Supply of unmanned aerial vehicles (UAV – Drones) for aerial surveillance



3

Upgrade - modernization of 2 **Super Pumas**



4

Mobile administration and on-site control centers in the 13 Regions



5

GPS Monitoring System used by the Hellenic Fire Service, as well as **vehicles** of Regional Civil Protection Operations Center



6

Isolation capsules and other equipment for patients' transport

7

Procurement of 1 Twin Engine **Jet Airplane** for the transportation of the first response team / operations coordination team / air transport



8

Purchase of 3 medium - size utility **helicopters** for medical use, natural disaster management and transportation of GSCP's Incident Management Team



9

Increased aerial surveillance with **light aircraft (AIRTRACTOR)** on high-risk days for immediate response

“AEGIS” – Equipment and means of support and coordination



DIAMOND 62 MPP Aircraft – Under Procurement via the AEGIS

- ❑ **3 new Diamond 62 MPP aircraft**, upgrading capabilities in prevention and control
- ❑ The aircraft are equipped with state-of-the-art electro-optical systems and can operate as **Aerial Command, Surveillance, and ISR (Intelligence, Surveillance, Reconnaissance) Data Collection Centers**, supporting missions such as forest monitoring, border surveillance, and search-and-rescue operations.
- ❑ **Added value:** the **data transmission capability** from the aircraft to the Operations Center allows for **real-time situational awareness** of the operational field, assisting decision-making

“AEGIS” – Equipment and means of support and coordination

Pillar 3

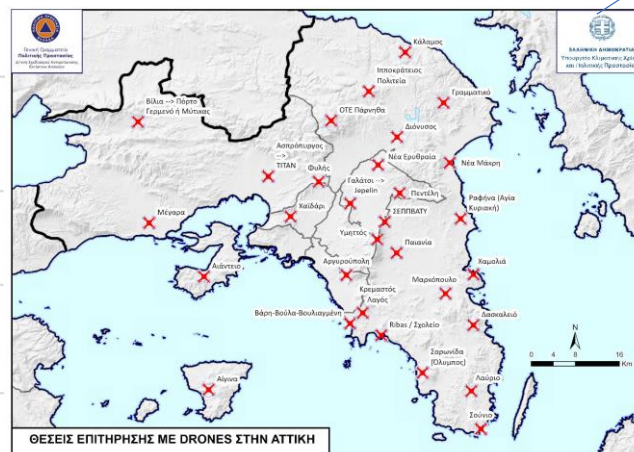


Development of **National UAS Strategy**,
led by the Ministry of Digital Governance

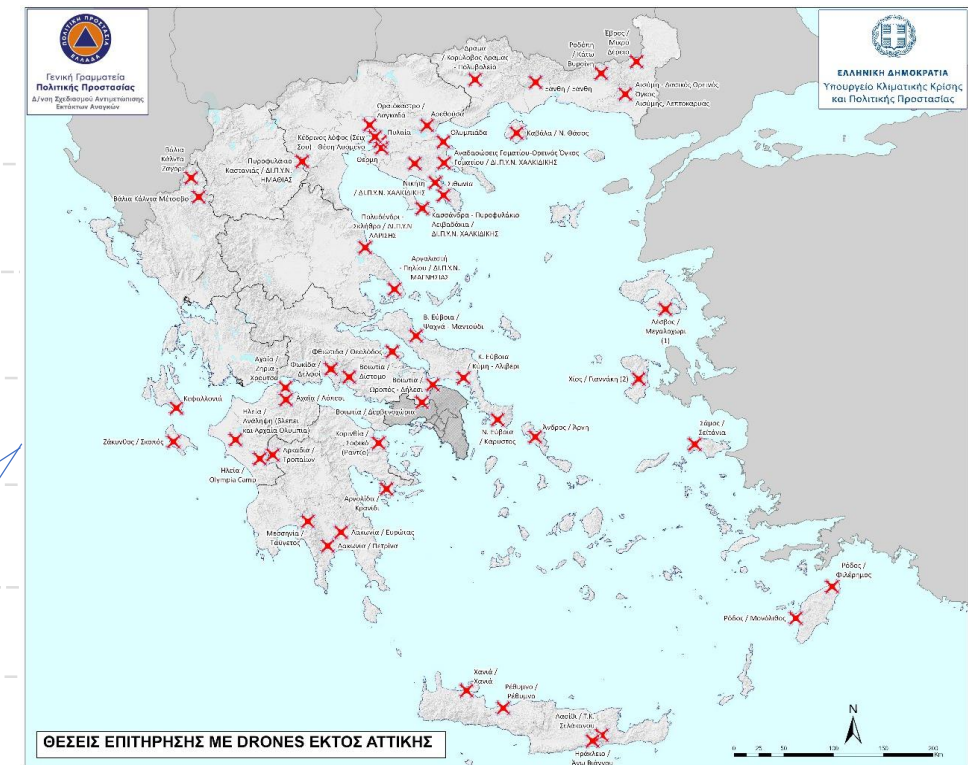
Unmanned aerial vehicles (UAV)

For Surveillance and prevention, coordination of ground forces, damage assessment, search for missing persons

- ❑ (4) fixed-wing UAVs (Max payload: 150 kg).
- ❑ (14) Tethered UAVs Integrated with 4x4 Vehicles – One per Region
- ❑ (3) Smaller Tethered UAVs easy integration to Fire Service vehicles
- ❑ (2) Octocopters for Cargo Transport and Suppression of small fires
- ❑ (71) Mini Multicopters



UAV Surveillance Deployment Map for the Region of Attica



Nationwide UAV Surveillance Deployment Map

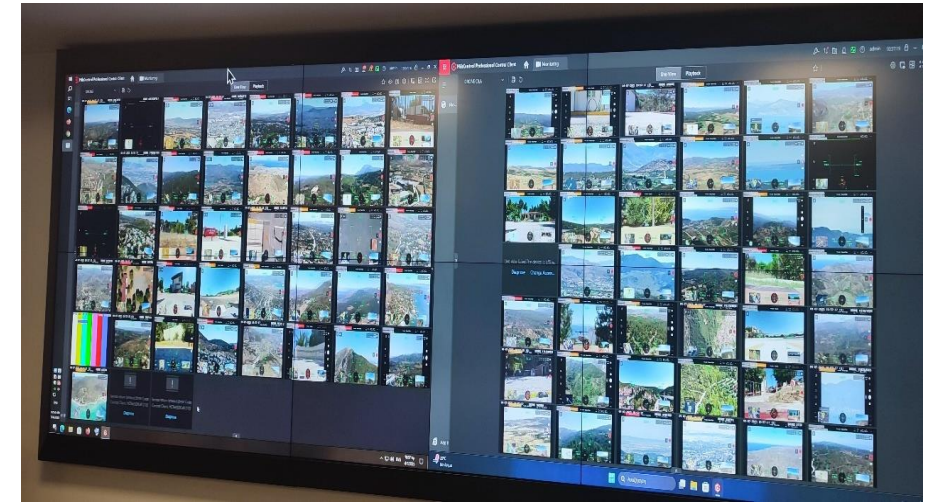
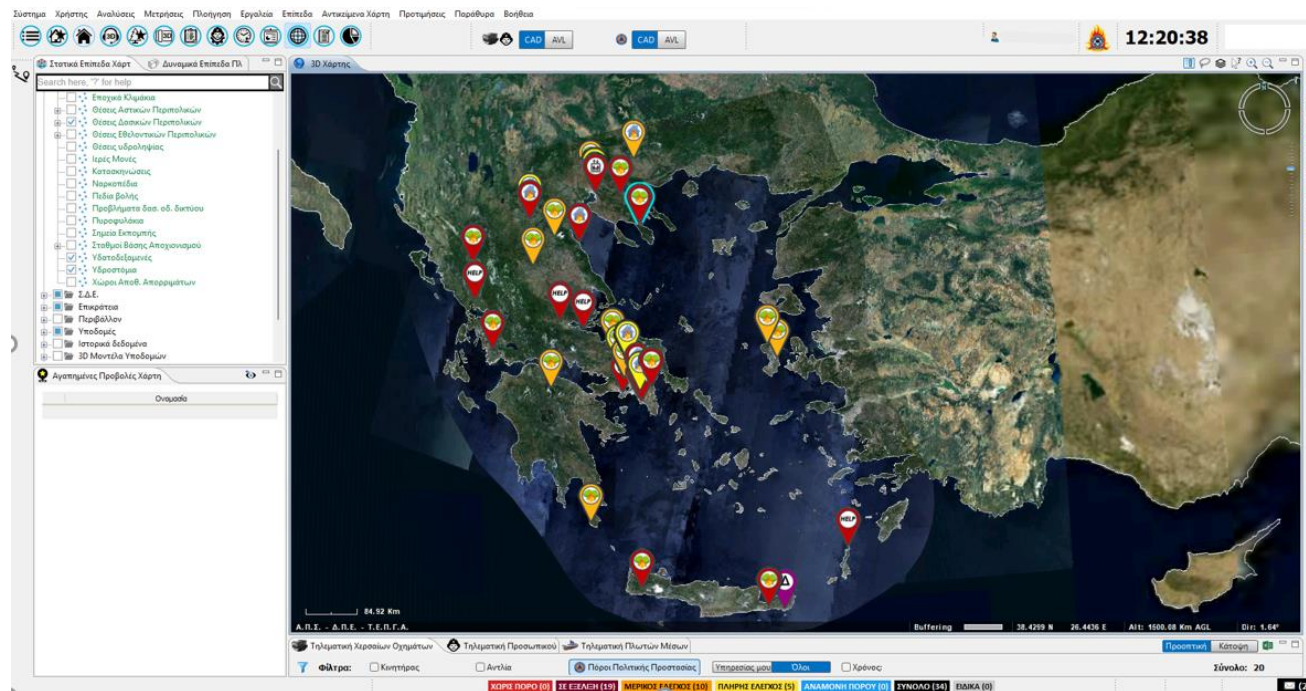
“AEGIS” – Equipment and means of support and coordination

Pillar 3



Partial Upgrade of the Technological Infrastructure of National Coordination Center for Operations and Crisis Management - ESKEDIK

Partial Upgrade of the digital tool for Fire Service Force Coordination



ESKEDIK – Control Display for UAV Video Transmission

“AEGIS” – National Database for Hazards, Risks and Losses

Pillar 2



✓ Interoperability across systems and agencies



Strengthen **resilience, coordination, and public trust** by ensuring that stakeholders—from emergency services to local communities - have access to reliable, real-time information during crisis

By utilizing scientific developments, Early Warning Systems and AI :

I. Real-time forecasting for Fires, Storms, Landslides and Floods

Continuous data analysis to enhance situational awareness and

Risk Maps of hazards for mitigation measures considering climate change

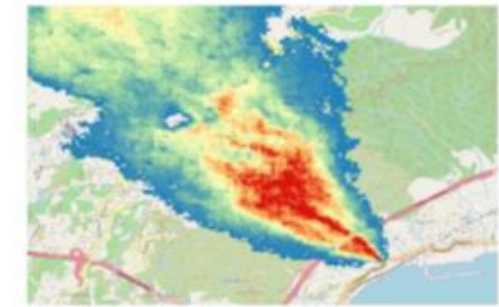
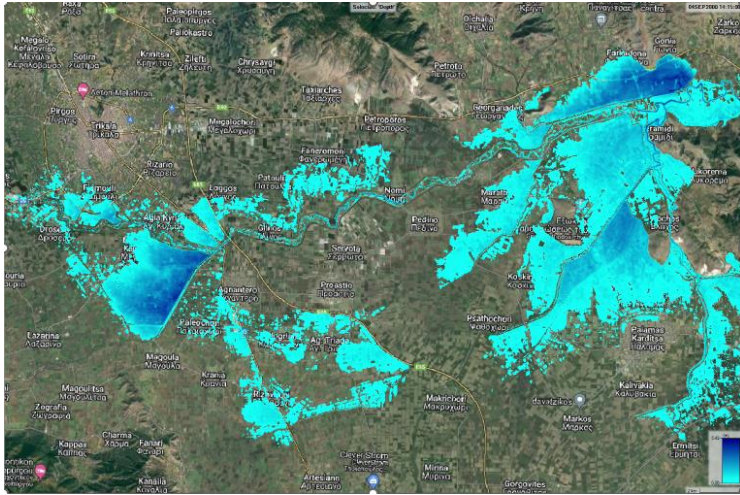
II. Provision of Timely Informational and Early Warning Updates

To support decision-making processes and enhance public safety through:

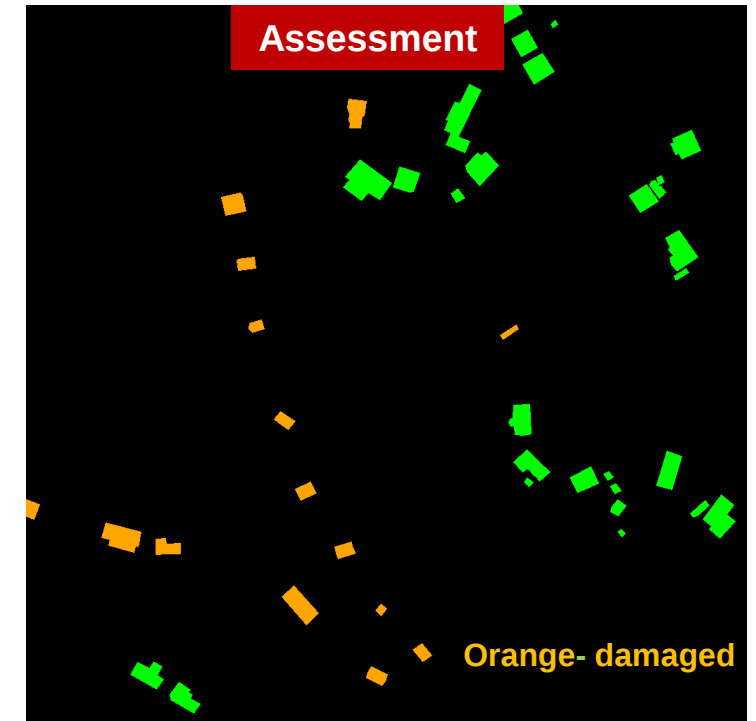
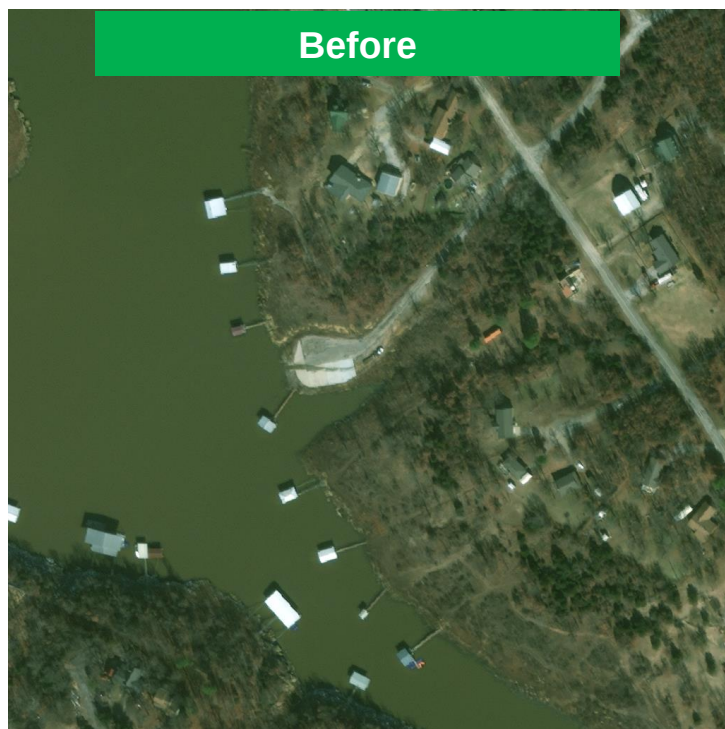
- **Efficient resource allocation,**
- **Evacuation management,**
- **Provision of personalized guidance** including:
 - identification of **safe evacuation routes,**
 - access to **designated shelters and essential resources,** and
 - establishment of **communication channels.**

III. Estimation of damages, economic consequences, recovery

Examples of AI Applications: Monitoring, detecting and simulating hazards, assessing damages



Fire probability



“AEGIS” – Operational and response equipment

Pillar 4



Indicative

1

Supply of medium-size **firefighting helicopters**



2

Supply of **5 new Canadair DHC-515** firefighting aircraft to replace Canadair 215 airplanes



3

Upgrade **7 Canadair CL415** to CL515 aircraft



4

Supply of amphibious single engine **fixed wing aircraft**

5

Vehicles for Forestry Service

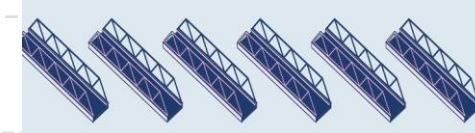


6

Purchase of **fire engines** and other response vehicle for local authorities

7

Supply of collapsible **transportable bridges** to deal with floods, disasters, etc.



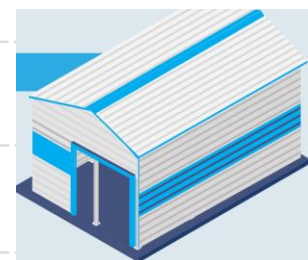
8

Supply of floating means of rescue and transport of patients and other required equipment



9

Supply of equipment for the immediate and temporary accommodation of the population after disasters



10

Mobile health equipment and infrastructure for the protection of public health

“AEGIS” – Upgrading of infrastructure facilities and provision of educational programs

Pillar 1



Indicative

1

New building facilities and office equipment for the Civil Protection, Fire Corps and **Educational Institutions**

2

13 Regional Operation Centers and Telecommunications equipment for Civil Protection

3

Purchase of Vehicles for GSCP and Regional/Local Civil Protection Operations Centers

4

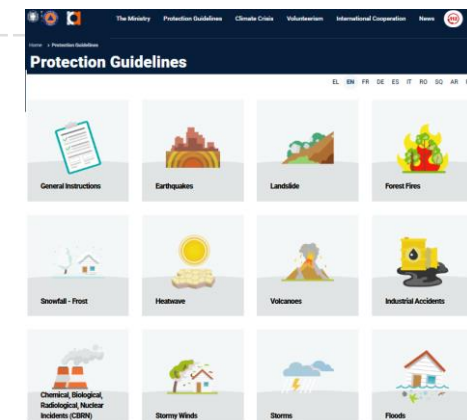
Upskilling human resources - creation of an awareness platform to improve the competence of the Nat-CHAMM staff and population to deal with natural disasters through awareness raising activities

- ✓ The **Civil Protection Academy** (2022-) trains citizens in civil protection and crisis management. More than 5,000 candidate members of volunteer organizations have been trained.
- ✓ Number of **Volunteer Firefighters** and Civil Protection volunteers doubled

5

Disaster **risk awareness and communication campaigns**.

- ✓ Information is disseminated via campaigns, TV and radio spots for specific disasters, publication of leaflets and brochures, electronic material, and school visits.
- ✓ Guidelines for self-protection is available online, in Greek and foreign languages.



Summary – MCCCCP's Advancing Climate Resilience Framework

- ❑ The establishment of the MCCCCP and the **increased public investment** in prevention, preparedness, response and recovery reflect the growing challenges Greece faces from climate change and natural disasters, and demonstrate the country's commitment to strengthen disaster risk management capacities and climate resilience.
- ❑ Recent reforms and the National Civil Protection Program have **enhanced emergency preparedness, coordination mechanisms, and financial support frameworks** for affected communities, businesses, and farmers.

However, further efforts are needed to strengthen medium- and long-term recovery, restoration, and whole-of-society engagement. Managing financial and administrative demands places significant pressure on national and local public resources. Informal buildings and settlements increase disaster risk due to their non-compliance with the safety standards established by land zoning and building regulations (OECD, 2023).

- ❑ Moving forward, the MCCCCP is focusing on **scaling up prevention and adaptation measures**, such as:
 - ✓ Promoting **public-private partnerships** and **insurance participation**,
 - ✓ Advancing **hazard and risk assessments** and **risk communication**,
 - ✓ Strengthening **land-use and building regulation enforcement**,
- ❑ With these next steps, Greece is positioning itself to build a **comprehensive, whole-of-society resilience framework**—integrating prevention, preparedness, recovery, and sustainable adaptation to future climate risks.

Thank you

