

Earthquake Resilient Schools

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WORKSHOP

**« Earthquake Resilient Schools in the Greece-Turkiye Cross-Border Area:
The pilot site Alexandroupolis »
Nomarchio Alexandroupolis, January 23, 2025**

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- 1) AFAD and its role in National Disaster Management Frame of the Republic of Türkiye,
- 2) Earthquake Risk Reduction Studies of AFAD,
- 3) 06 February 2023 Kahramanmaraş Earthquakes
- 4) Activities performed by Turkish Participants within EReS



INTERNATIONAL
HELLENIC
UNIVERSITY



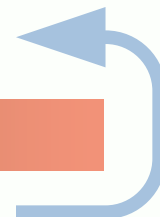
GEBZE
TEKNİK ÜNİVERSİTESİ

AFAD

T.C. İÇİŞLERİ BAKANLIĞI
AFET VE ACİL DURUM
YÖNETİMİ BAŞKANLIĞI



The Role of AFAD within National Disaster Management Framework



Planning and Risk Reduction	Preparedness	Response	Recovery	Planning and Risk Reduction
Hazard maps	Logistics	Coordination	Temporary shelter	
Risk maps	Assemble Area	Search	Physico-social Support	
Awareness trainings	Exercise	Rescue	Damage Assessment	
Urban plans	Voluntary Groups	First aid	Site selection	
Legislation	Warnings & Alarms	Brigade	Permanent Housing	
Catastrophe Insurance	Vulnerable Groups		Finance	
Urban regeneration				
Resistance of structures				



AFAD is the sole governmental authority responsible from disaster and emergency management topics established under Ministry of Interior. AFAD has responsibilities at every stage of disaster management cycle (including planning, risk reduction, preparedness, response and recovery) and administrative scheme has been designed accordingly.

Central and Local Level Administrative Structure of AFAD



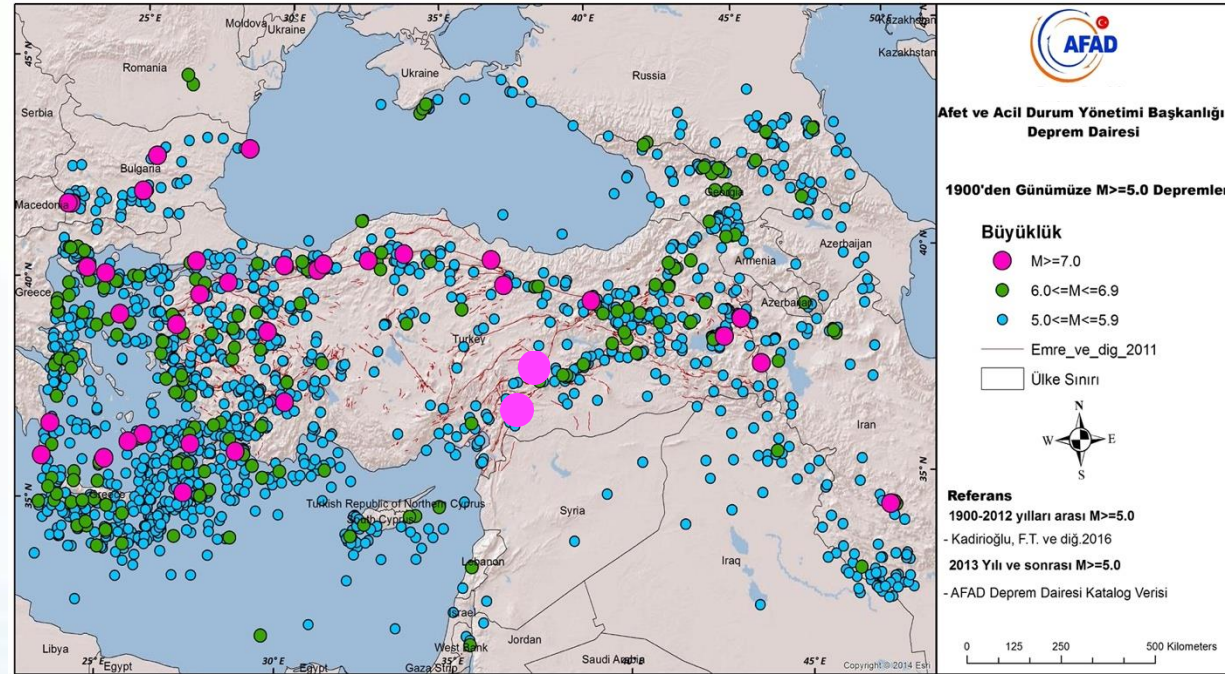
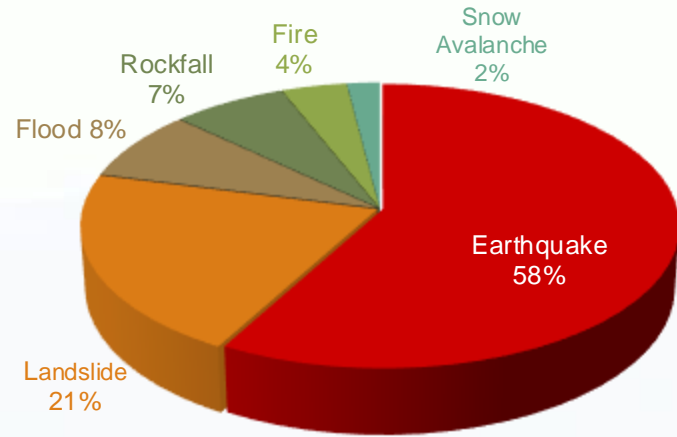
In addition to central organisation, AFAD has 81 provincial units and 11 SAR units. Total number of staff is approximately 7.000.

Structure

ORGANIZATIONAL STRUCTURE



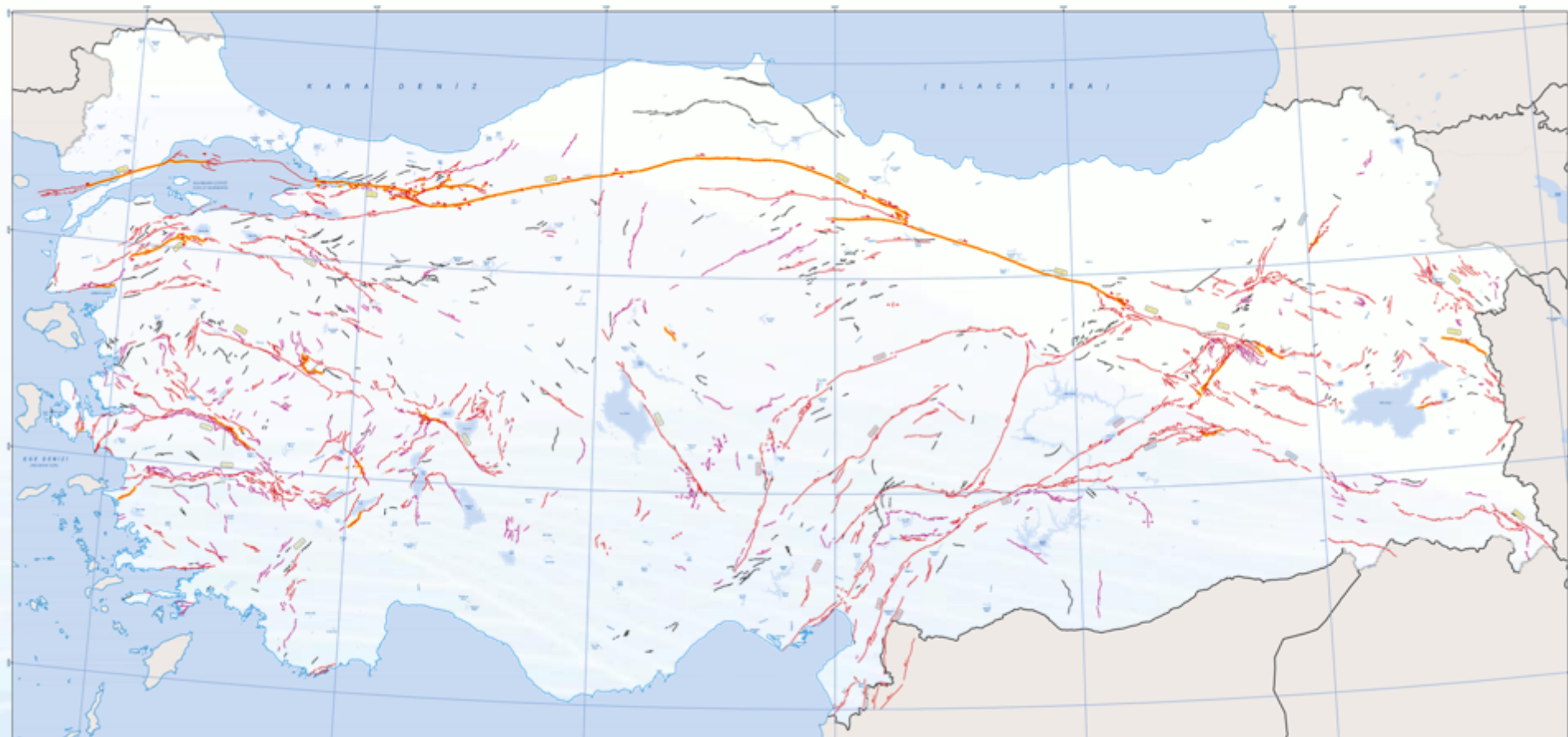
Natural Hazards in Türkiye; A General Perspective



Earthquakes are the most destructive hazard type in Türkiye. 25.000 annual earthquake calculated in Türkiye. Between 6 February – 01 May 2023 approximately 32.000 aftershocks calculated following the earthquake doublet (Kahramanmaraş Earthquakes, 06 February 2023). From 1900, 254 destructive earthquakes occurred in Türkiye with 158.000 loss of lives and almost 1.000.000 destruction to property.

Earthquake Hazards

ACTIVE FAULT MAP OF TURKIYE (MTA 2013)



487

Fault Segment



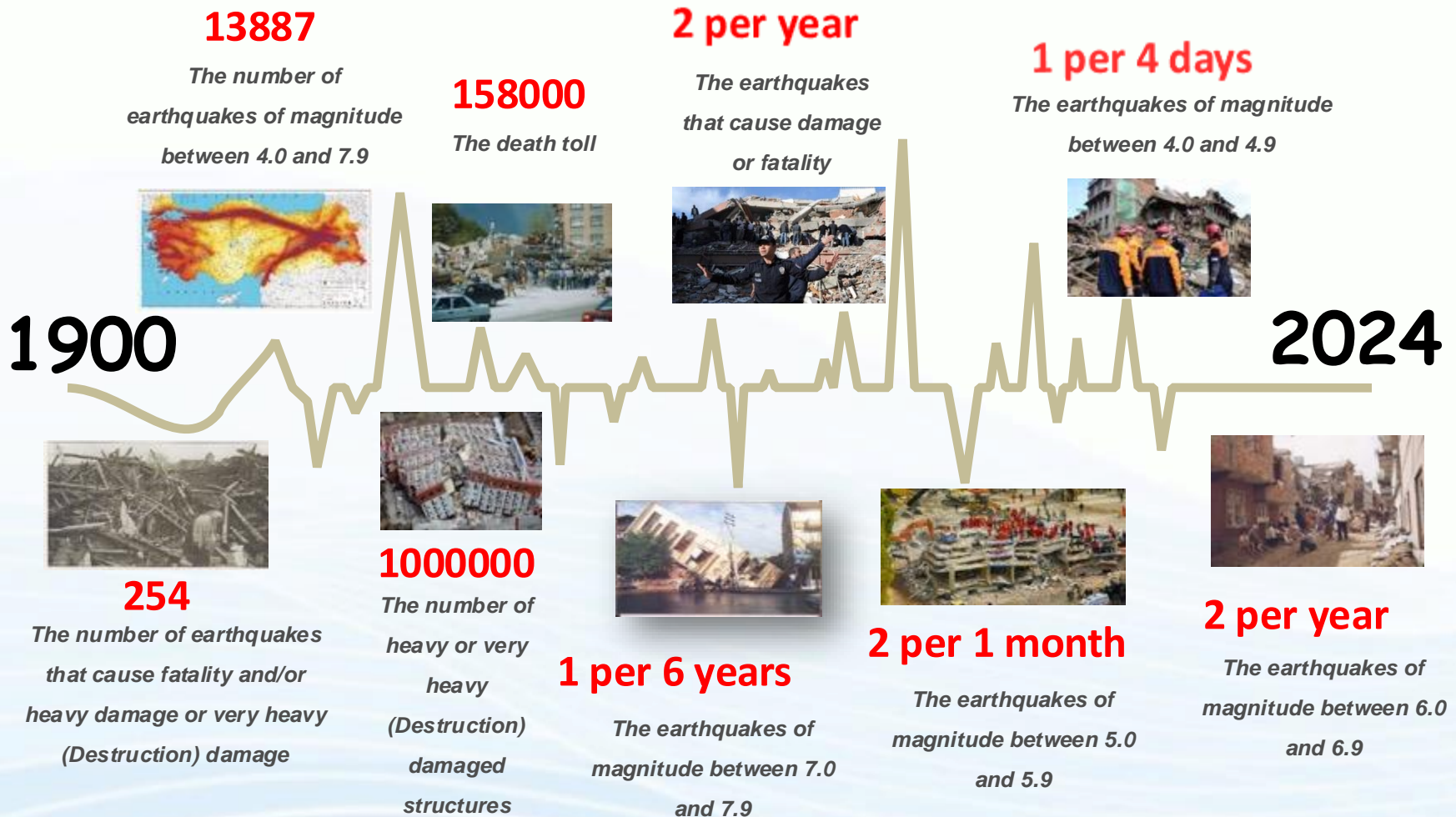
Each fault has the potential to produce more than **5.5 magnitude** earthquakes.



14.000 km

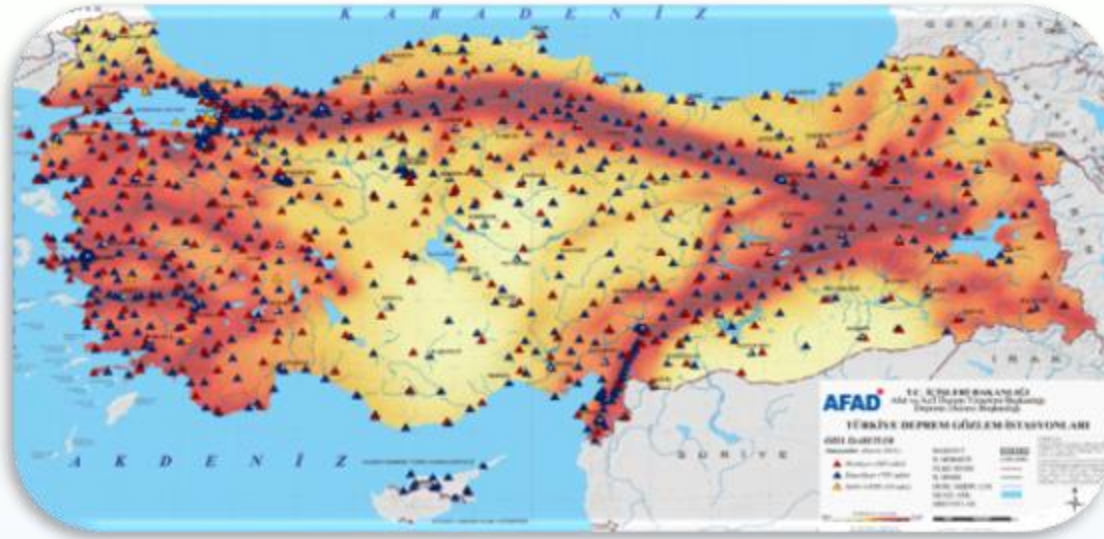
Total Fault Length

EARTHQUAKE STATISTICS BETWEEN 1900-2024



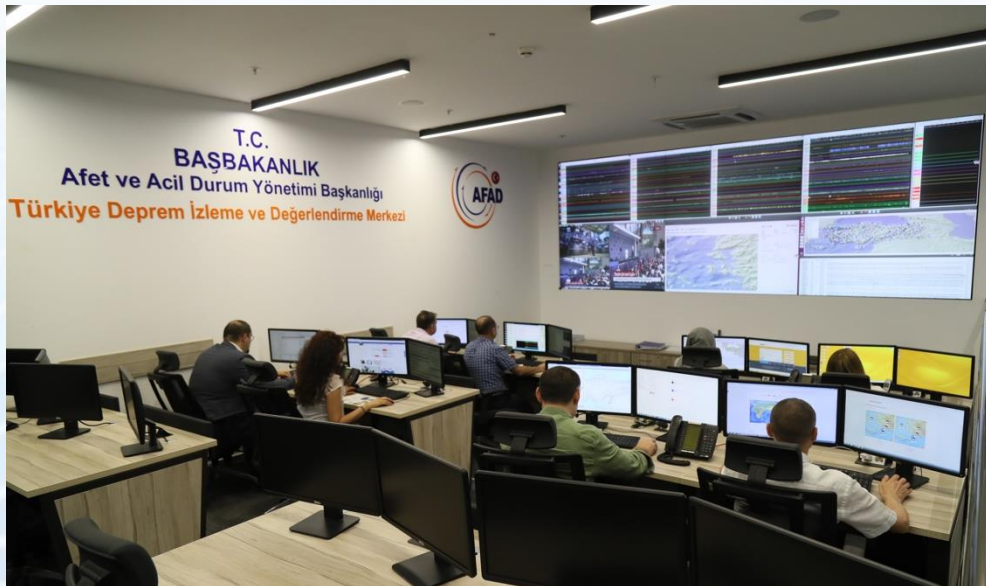
The statistical analyses are conducted by using the AFAD Earthquake Department and limited to the earthquakes of magnitude equal to 4.0 or greater.

Earthquake Department of AFAD



AFAD Earthquake Department is the sole national authority to operate national level earthquake observation network in Türkiye. In addition national level earthquake hazard maps and building codes are prepared by AFAD Earthquake Department. The Department conducts several nationally and internationally owned projects in the field of earthquake risk management like risk reduction, awareness and preparation.

AFAD operates the first biggest seismic network in Europe including seismometers, GNSS, etc.



National Level Earthquake Risk Reduction Strategy

National Earthquake Strategy and Action Plan

Disaster And Emergency Management Presidency	Ministry of Energy and Natural Resources	General Directorate of Mapping
Ministry Of Culture And Tourism	Ministry of National Education	Ministry of Development
Ministry of Environment and Urbanisation	Ministry of Treasury and Finance	Ministry of Interior
Ministry of Health	Council of Higher Education	Ministry of Transport and Infrastructure
Kandilli Observatory and Earthquake Research Institute		

MITIGATION

- Earthquake Hazard Map
- Earthquake- Resilient Buildings
- Damage Estimations and Earthquake Scenarios
- Earthquake Data Bank
- Strengthening of the Hospitals and Schools

PREPAREDNESS

- Disaster-Ready Turkey Project
- Establishment of the Disaster Logistic Centers
- R & D Support with the UDAP Projects
- Improvement of the Mobile Emergency Response Vehicles
- Preparation of the Provincial Health Disaster Plans and Hospital Disaster Plans

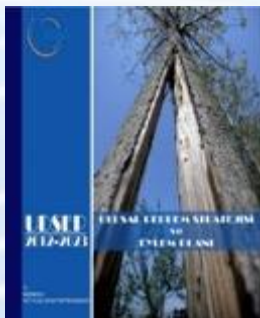
RECOVERY

- Standardization of the Damage Assesment Systems
- Standardization of the Temporary and Permanent Shelters
- Preparation for The National Turkey Recovery Plan

RESPONSE

- The implementation of the Turkey Disaster Response Plan
- Increasing the Capacity of National Medical Teams
- Establishment of the Damage Estimation Systems

The main objective of the National Earthquake Strategy and Action Plan is to prevent or mitigate the physical, economic, social, environmental and political harms and losses that may be caused by earthquakes and to create a safe, prepared and sustainable environment to protect from earthquakes.



National Level Earthquake Monitoring in Türkiye



329
Broadband



856
Accelerometer



1.185
Earthquake
monitoring
stations



Europe's **1.** Biggest
Seismic Observation
Network



Regional Analysis of
earthquake events in
the region

Real Time Eq. Data is
shared with 7 countries.

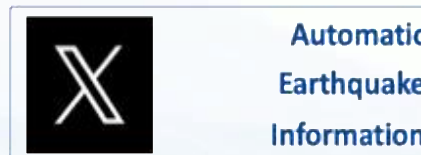
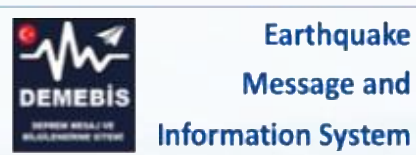
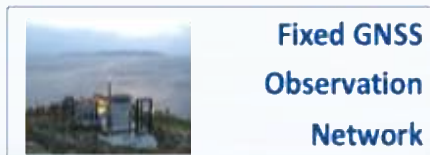
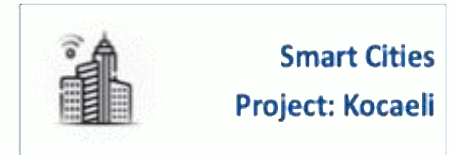
58,630 Earthquake Parameter Calculations by 2023,
25,000 Earthquake per year on average

National Earthquake Monitoring and Assessment Center



- 50,000 aftershocks after February 6.
- Earthquake relocation analysis (Hypo DD).
- Moment tensor calculations of earthquakes of 4 and above.
- Colomb Stress analysis of the earthquakes.
- TADAS analysis of earthquakes larger than 3.5.
- Site Ground Classifications for whole stations.

Important Projects Completed and/or in Progress



International Collaborations of AFAD Earthquake Department



International Seismological Center



**Centre-Sismologique Euro-Méditerranéen (CSEM)
European-Mediterranean Seismological Centre (EMSC)**



Observatories & Research Facilities for European Seismology



European Integrated Data Archive



European Plate Observing System



Black Sea Economic Cooperation (BSEC)



Economic Cooperation Organization (ECO)



6 February 2023 Kahramanmaraş Earthquake Doublets

06 FEBRUARY 2023

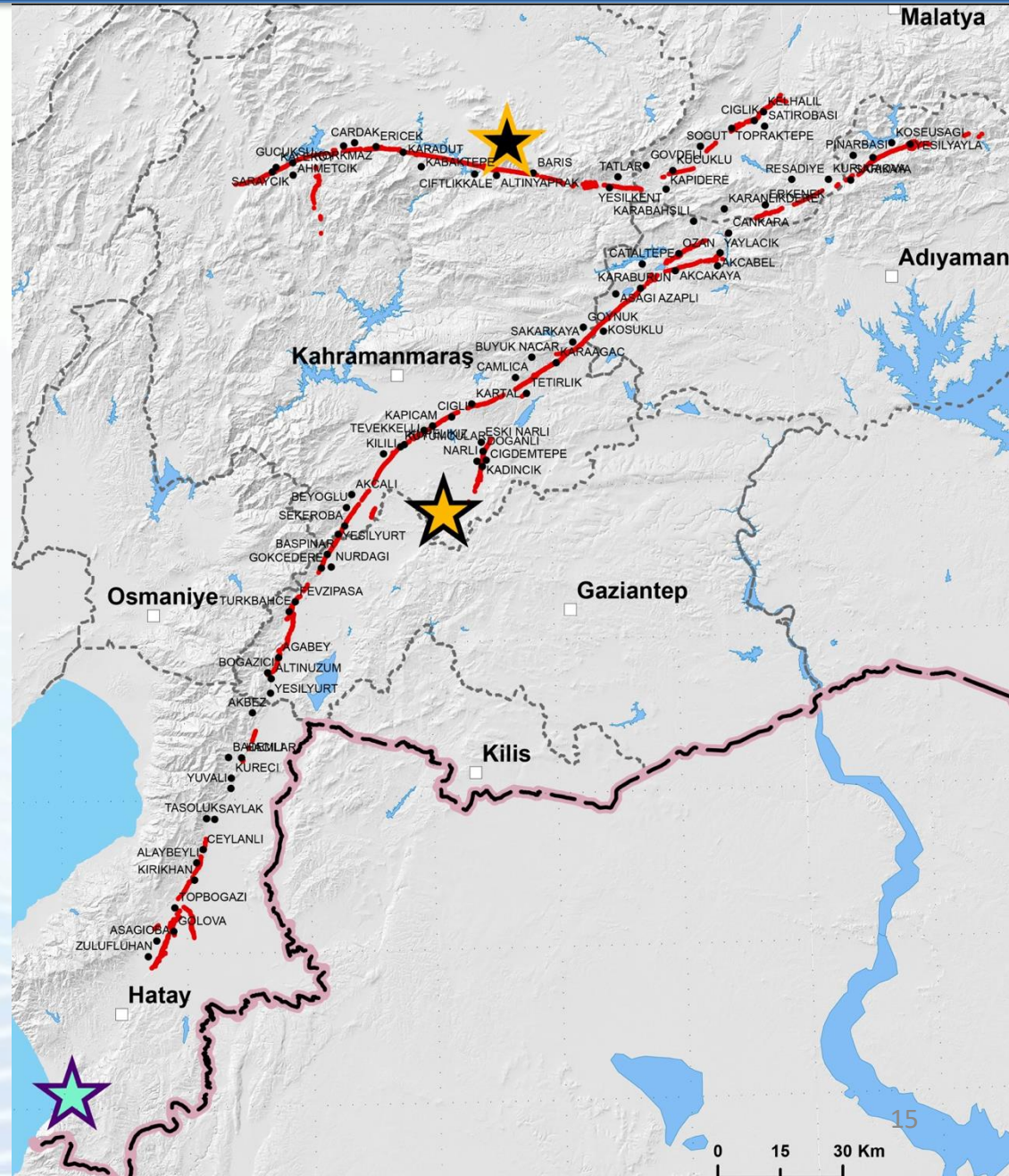
KAHRAMANMARAŞ PAZARCİK

(Mw: 7.7) and ELBİSTAN (Mw: 7.6)

EARTHQUAKES

Approximately 450 km surface
rupture,

Displacements; up to 8.0 meters in
the earth's crust



FAULT RUPTURE LENGTHS of MAJOR EARTHQUAKES IN THE WORLD

2023
6 ŞUBAT DEPREMİ
FAY KIRILMA UZUNLUĞU
500 KM

Türkiye, 2023

1857
**KALİFORNİYA,
FORT TEJON**
FAY KIRILMA UZUNLUĞU
360 KM

California, US, 1857

1906
ÇİN, SİÇUAN
FAY KIRILMA UZUNLUĞU
300 KM

China, 1906

1906
**KALİFORNİYA,
SAN FIRANCISCO**
FAY KIRILMA UZUNLUĞU
400 KM

California, US, 1906

COMPARISON OF FAULT RUPTURE LENGTHS of BIG EARTHQUAKES IN OTHER COUNTRIES

6 February 2023 Kahramanmaraş Earthquakes



Countries

131.957 km²
10.3 Million



108.812 km²

Total area affected by the earthquake



Bulgaria
108.489 km²



South Korea
99.909 km²



Azerbaijan
82.629 km²



Austria
82.445 km²



Georgia
69.700 km²



Denmark
42.434 km²



Switzerland
39.997 km²



Netherlands
33.893 km²

Comparison of the total population affected by the earthquake in Turkey with the population of several countries

Total Population Affected By The Earthquake

13.500.000



Tunisia
12.2 Million



Belgium
11.6 Million



Czech Republic
10.5 Million



Swedish
10.4 Million



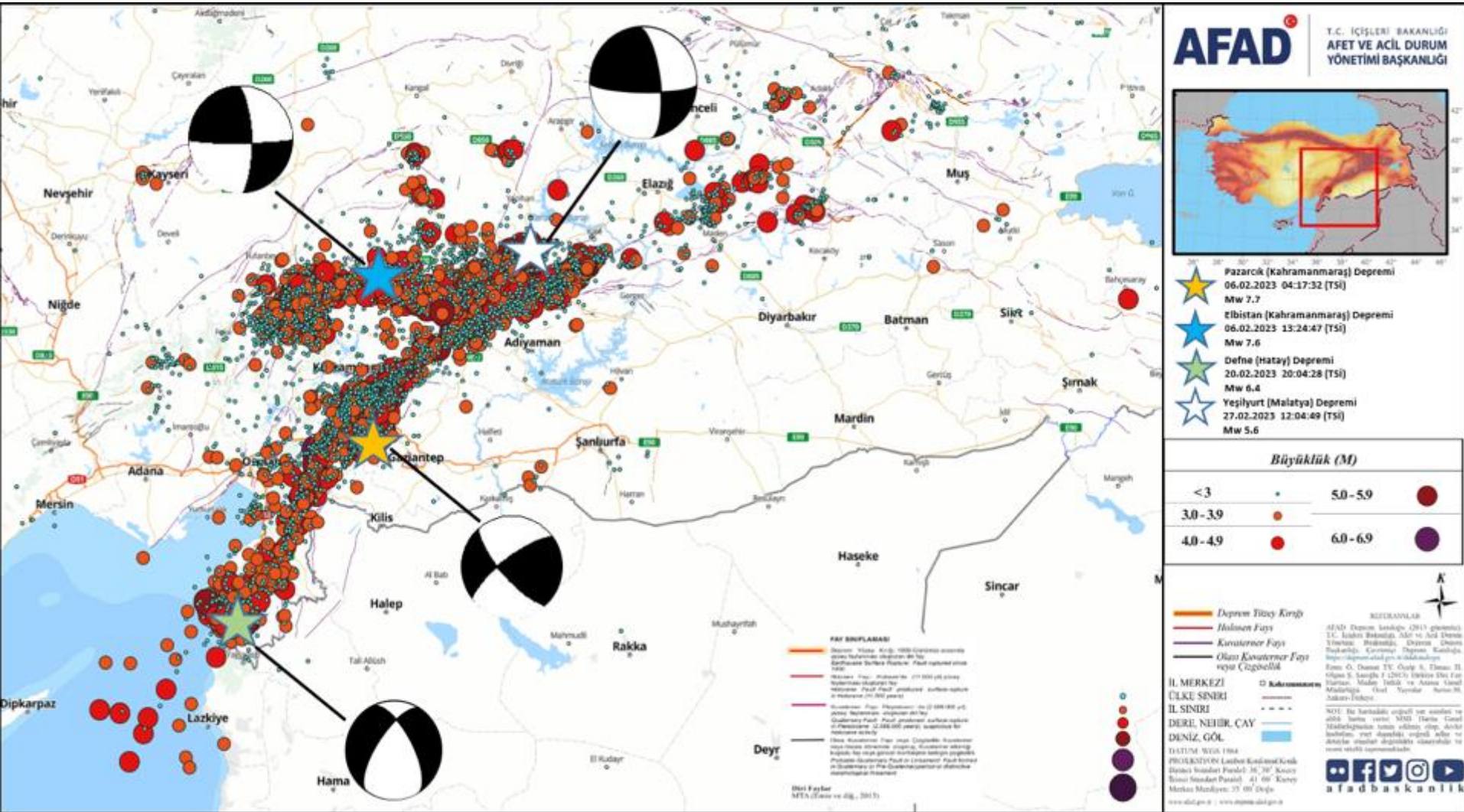
Portugal
10.3



Azerbaijan
10.1

6 February 2023 Kahramanmaraş Earthquakes

SEISMIC ACTIVITY IN THE REGION AFTER THE 06 FEBRUARY EARTHQUAKES



3 main shocks
Mw ≥ 6

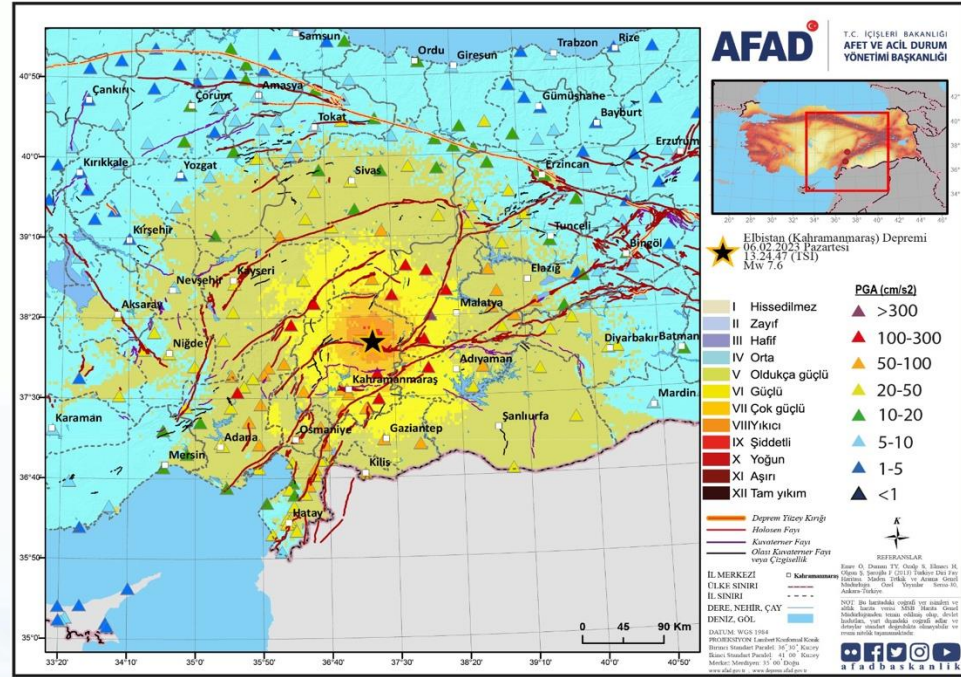
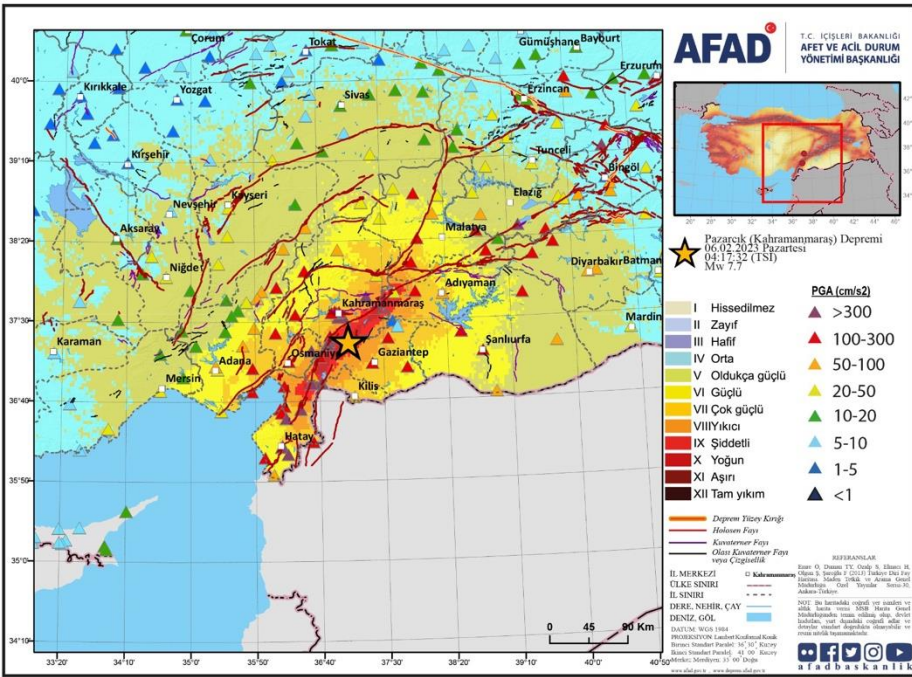


43 earthquake
Mw: 5-6



482 earthquake
Mw: 4-5

6 February 2023 Kahramanmaraş Earthquakes



Effective duration



Effective duration



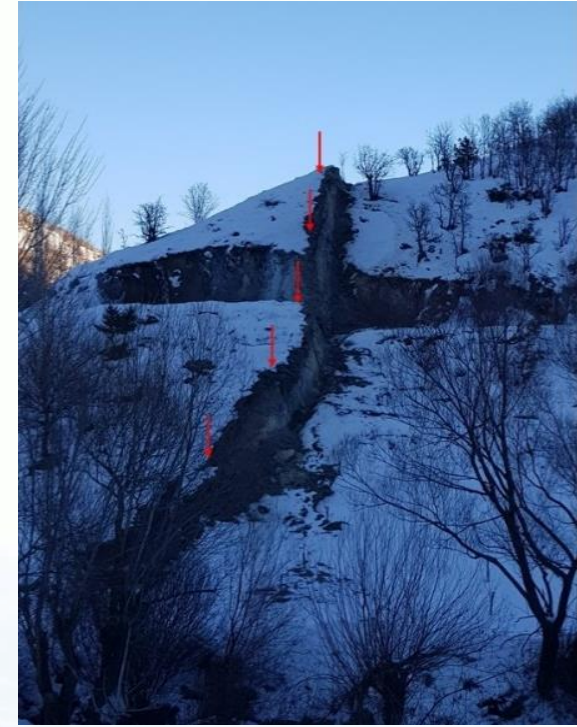
ESTIMATED SEISMIC INTENSITY MAP (Mw=7.7)

PAZARCİK - KAHRAMANMARAŞ

ESTIMATED SEISMIC INTENSITY MAP (Mw=7.6)

ELBİSTAN - KAHRAMANMARAŞ

6 February 2023 Kahramanmaraş Earthquakes



6 February 2023 Kahramanmaraş Earthquakes



EReS WP5 (Communication & Dissemination) Activities

Project objectives:

- Cross-border action plans for the management of cross-border risks identified in joint risk assessment.
- Update guidelines for effective preparedness and response during and after a strong earthquake, for raising awareness among school communities.
- Establishment of communication between schools and civil protection authorities nationwide as well as between civil protection authorities of Greece and Türkiye (common procedure and effective protocols of reaction in the CBA).
- Establishing School Seismology application at selected schools in order to increase the awareness of pupils on earthquake science and earthquake risk management.

TASKS

T5.1. Dissemination activities

T5.2. Dissemination of project's results to end users & critical stakeholders

T5.3. Training of school community aiming at earthquake resilient schools

T5.4. Scientific Publications/Presentations

DELIVERABLES

D.5.1. Dissemination activities

D.5.2. Workshop for stakeholders and school communities in Greece

D.5.3. Workshop for stakeholders and school communities in Türkiye

D.5.4. Scientific Publications/Presentations 22

EReS WP5 (Communication & Dissemination) Activities

- Dissemination of project results among technical staff and decision makers and make us them practical,
- Increase the awareness of school community at pilot sites to disaster risk reduction related topics
- By using school seismology practices at pilot schools, increase the awareness of children on earthquake science,
- Secure coordination with other EU projects with similar targets,
- Discuss the outputs of the project with international community,
- Contribute to cross border information exchange.

Studies Carried Out Within the Scope of WP5


a. Materials

School Seismology Application Guide: A total of thirty two pages were prepared in Turkish to be distributed and six pages in English to be included in the final report.

Project Leaflets: Three leaflet regarding the project information and school seismology was prepared in Turkish and English.

...of Seismology application guide was prepared for use in Çanakkale, which was selected as a pilot province in Turkey within the scope of the EReS (Earthquake Resistant Schools) project. The guide includes basic concepts and information about earthquakes and the simple use of earthquake measurement devices installed in schools, and has been prepared for teachers (geography, social sciences, physics) and students on the subject.

School Seismology Application Guide



January 2015 **AFAD**

Lower Page of the School Seismology Application Guide

The main purpose of school seismology is to increase awareness of earthquakes in schools, to increase students' future knowledge and skills in geology, geophysics and civil engineering, which are the basic disciplines working on earthquakes, to orient them to these disciplines and to expand their areas of interest. Increasing teacher knowledge about earthquakes, ensuring that students are raised as earthqua...

PROJECT KEY CONTRIBUTIONS (CONTINUE...)

Real-Time Seismic Monitoring and Damage Assessment. Deliverable D4.1 emphasizes the importance of monitoring school buildings to assess their seismic response. Using low-cost accelerometers and real-time data analysis, it highlights methods for predicting rapid prediction of structural damage, such as inter-story drift and stiffness degradation. These findings enhance seismic preparedness and provide tools for rapid post-earthquake assessments.

- **Impact and future Directions.** The EReS project delivers critical advancements in seismic hazard and risk assessment for the Greece-Türkiye CBA, fostering collaboration and data sharing through platforms like the REDA system.

By harmonizing methodologies and focusing on vulnerable infrastructures such as schools, the project enhances the region's resilience to seismic events.

Future work should continue integrating real-time monitoring systems and refining risk assessment models to further support local authorities in earthquake preparedness and mitigation efforts.

CONCLUSIONS

- EReS project research outputs, provide a robust foundation for harmonized seismic hazard and risk assessments in the Greece-Türkiye Cross Border Area.
- By integrating state-of-the-art methodologies, collaborative platforms, and targeted risk mitigation strategies, EReS enhances the region's preparedness and resilience against seismic events.
- The findings serve as a critical resource for policy makers, engineers, and local authorities in managing seismic risks effectively.



PARTNER INSTITUTIONS




INTERNATIONAL HELLENIC UNIVERSITY, SERRES, GREECE
<https://www.i.hu.gr/en/>

GEORGIOS PAPANIKOLAOU TECHNICAL UNIVERSITY, KOCAELI, TURKEY
<https://www.gtu.edu.tr/>

AFAD
STATE OF TURKEY
DISASTER EMERGENCY MANAGEMENT AUTHORITY
<https://en.afad.gov.tr/>

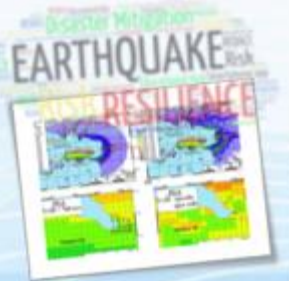
ITSAK
INSTITUTE OF ENGINEERING SEISMOLOGY & EARTHQUAKE ENGINEERING, THESSALONIKI, GREECE
<http://www.itsak.gr/en/>

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ITSAK (N. Theodoridis): ntheod@itsak.gr



Earthquake Resilient Schools

Project 101101206 — EReS



EUROPEAN COMMISSION
Executive Agency for Education, Youth and Sports
EReS - Action Programme of Research
EU - Partnership with Turkey in Education

GRANT AGREEMENT
Project 101101206 — EReS

EReS WP5 (Communication & Dissemination) Activities

TARGET GROUP

Students

Teachers

Disaster and Emergency Manager

PROJECT RELATED EVENTS

- "Earthquake awareness" trainings in schools,
- Activities on "school seismology" in pilot schools in Türkiye and Greece,
- Workshops on the applicability and sustainability of project results with decision-makers, disaster and emergency manager and academicians in both countries.

RESEARCH FIELDS COVERED BY THE EReS TEAM
Engineering Seismology & Earthquake Engineering, Numerical Modeling, Nonlinear analysis of Structures, Soil-Structure Interaction, Seismic Vulnerability, Seismic Risk Evaluation, Strong Ground Motion Simulations, Earthquake Early Warning & Rapid Response Systems, Engineering Geology, Geotechnical Hazard and Risk Assessment, Geographic Information Systems, Remote Sensing, Software Development, ICT

Selected Pilot Areas

PARTNER INSTITUTIONS

INTERNATIONAL HELLENIC UNIVERSITY, SERRES, HELLAS
<https://www.ihu.gr/en/>

GEZTE TECHNICAL UNIVERSITY, KOCAELI, TÜRKİYE
<https://www.gtu.edu.tr/>

AFAD
DISASTER EMERGENCY MANAGEMENT AUTHORITY, TÜRKİYE
<https://www.afad.gov.tr/>

INSTITUTE OF ENGINEERING SEISMOLOGY & EARTHQUAKE ENGINEERING, THESSALONIKI, HELLAS
<http://www.itsak.gr/en/>

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Earthquake Resilient Schools

Project 101101206 — EReS

EUROPEAN COMMISSION
ERES (EUROPEAN RESILIENT EARTHQUAKE RESILIENT SCHOOLS)

YILDIZ ÜNİVERSİTESİ
Proje 101101206 — EReS

DEPREME DİRENÇLİ OKULLAR PROJESİ - Giriş

Türkiye ve Yunanistan'ın bulunduğu ortak coğrafya yüksek sismik etkinlik ve karmaşık tektonik yapıya sahip bir bölgedir.

Bu bölgede okul binalarının ve bu binalarda yaşayanlara odaklanacak şekilde deprem tehlikesi ve risk değerlendirilmesi çalışmalarına EReS Projesi'nin kritik katkısına yönelik bilgiler içmektedir.

Proje kapsamında yapılan çalışmalar bölge genelinde depremlere hazırlık, dirençlilik ve risk azaltma stratejilerini iyileştirmeyle hedeflenen çok sayıda çıktıye kaplanmaktadır.

ERES PROJESİ TEMEL FAYDALAR/KATKILAR

- **Sismik Tehlike Değerlendirmesi için Ortak Çerçevenin Belirlenmesi.** Projenin D.2.1 numaralı çıktı ortak sismik tehlikenin modellenmesi ve veri paylaşımı için bir çerçeve ortaya koymaktadır. Sismik kaynak modellenmesinin ve yer hareketinin belirlenmesi konusunda mantık ağacı yaklaşımı tercih edilmiştir.
- **Pilot Bölge Seçimi ve Yöntem.** Bölgenin sismik karakteristik özelliklerini belirleme amacıyla Dedeoğaz, Çanakkale, İzmir ve Vathy (Samos Adası) pilot bölge olarak seçilmiştir. Pilot alanların seçilmesinde; Coğrafi lokasyon, sismik aktivite ve veri mevcudiyeti gibi faktörler göz önüne alınmıştır. 200 km yarıçapına sahip olan dairesel alanlar kapsama alınarak verilerin toplandığı ve değerlendirildiği alanlar ifade etmektedir (Şekil 1.1). Seçili senaryolar üzerinden detaylı sismik tehlike değerlendirilmesinde tarahalı deprem verileri ve bölgesel aktif fay sistemlerine ait verilerden faydalanılmıştır.

Şekil 1: 30 Ekim 2020 Samos Adası Depremi (M 7.0) için hesaplanmış ShakeMap senaryosu (PGA cm/s² dağılımı). Senaryo REDA Sistemi kullanılarak hazırlanmıştır (<https://www.itsak.gr/en/>)

Şekil 2: (Üst Sol): Deprem katalog verisinin kullanıldığı alanlar (kırmızı nokta) (çığır) ile belirlenmiş alan. Şarj daireleri her bir pilot çalışma alanı merkezinden 200 km. çapında dairesel alanlar tanımlanmaktadır.

Şekil 3: (Üst Sağ): Ortak çalışma alanı için PSHA sonuçları ve 475 yıl geri dönüşüm periyodu için hesaplanmış PGA dağılımı.

ERES PROJESİ TEMEL FAYDALAR/KATKILAR (DEVAMI...)

- **Olasılıksal ve Deterministik Sismik Tehlike Değerlendirmesi (PSHA & DSHA)** İy Paketi 2.2 kapsamında yerel ve bölgesel ölçekte sismik tehlike parametrelerinin hesaplanması ve değerlendirilmesi içermektedir. Çalışmalar kıtaların ortak çalışma alanında sismik tehlikenin yüksek olarak hesaplandığı bölgelerde ortaya koymuştur (Şekil 2 ve 3). Sonuçlar epitemik beşirliklerin değerlendirilmesinde birden fazla kaynak modelinin entegr edilmesinin önemli uygulamaktadır.
- **Eğitim Altyapısı için Sismik Risk Değerlendirmesi.** D.3.1 and D.3.2 iş paketlerinin çıktılar ortak çalışma alanındaki okul binalarının sismik zarar görülebilirlikleri ortaya koymuştur. Nüfus verilerini ve hasar değerlendirme yöntemlerinden okul binalarının yapısal karakteristikleri ile ilgili kritiklik eğilimi ve hasar değerlendirme yöntemleri ile binaların yapı türleri, deprem dayanıklılık uyumları ve bina kat adedini değerlendirilmiştir. Analizlere yönelik çıktılar pilot bölgelerinde yerel yöneticilere karar verme mekanizmaları ve risk haritalama çalışmalarını için önemli katkılar sağlayacaktır.

OKUL SİSMOLOJİSİ YÖNTEMİYLE HANGİ SORULARA CEVAP BULACAGIZ ?

- Deprem Olduğu Zaman Yeryüzünde Nasıl Değişiklikler Oluyor?
- Alet Yönteminde Kullanılan Doğru Terminoloji Nedir? Basın ve Yayın Organlarında Hangi Yanlış Terminoloji Kullanılıyor?
- Deprem Parametreleri Nelerdir? Deprem Yeri ve Büyüklüğü Nasıl Hesaplanır
- Dağaların Yayılım Teorisi
- Deprem Verisi Nasıl Bir Şey?
- Deprem Verisi Nasıl Değerlendiriliyor?
- Depremin büyüklüğüne göre nasıl bir hasar veya can kaybı beklemeliyiz?
- Kartıyoyunda Deprem Konusunda Doğru Bilinçli Zannedilen Yanlışlar Nelerdir?
- Türkiye'de Neden Çok Fazla Yüksek Deprem Meydana Geliyor?
- Deprem Bilimine Nasıl Katkı Sağlayabiliriz?
- Türkiye'de Deprem Konusunda Ne Tür Çalışmalar Yapılıyor?
- Deprem Konusunda Uzmanlar İçin Ne Yapmamız Lazım?
- Ürü Türk Deprem Bilimcileri Kimler?

PROJE İLE İLGİLİ ETKİNLİKLER

- Okullarda İ AFAD Müdürlükleri tarafından verilen "afet ve acil durum farkındalık" eğitimleri,
- AFAD Başkanlığı'ndaki deprem uzmanları tarafından öğrenim ve öğrenciler okullarda kurulu deprem gözlem cihazlarından elde edilen verilerin değerlendirilmesiyle ilgili eğitimler,
- Deprem olayı ve sismik depremsizlik konusunda konferanslar,
- Deprem konusu ile ilgili çalışan mühendislik disiplinleriyle ilgili bilgilendirmeler

PROJE ORTAKLARI

ULUŞLARARASI YUNANISTAN ÜNİVERSİTESİ, SEREZ, YUNANISTAN
<https://www.ihu.gr/en/>

GEZTE TEKNİK ÜNİVERSİTESİ, KOCAELI, TÜRKİYE
<https://www.gtu.edu.tr/>

AFAD
AFET VE ACIL DURUM YÖNETİME BAŞKANLIĞI, ANKARA, TÜRKİYE
<https://www.afad.gov.tr/>

DEPREM MÜHENDİSLİĞİ VE MİHENDİSLİK SİSMOLOJİSİ ENSTİTÜSÜ, SELANİK, YUNANISTAN
<http://www.itsak.gr/en/>

İletişim
Web: <https://eres-eu-project.topogeo.ihu.gr/>

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Okul Sismolojisi

Depreme Dirençli Okullar Projesi
(Earthquake Resilient Schools)

Proje 101101206 — EReS

ERES PROJESİ TEMEL FAYDALAR/KATKILAR (DEVAMI...)

- **Geniş Etkenek Deprem Gözetimi ve Hasar Tahmini.** 4.1. İş Paketi sonuçları depreme karşı okul binalarının durumunu belirlemede gelecek değerlendirilmesinde önemli katkı koymuştur. Düşük maliyetli sismik ölçümlerin kullanımı ve geniş sismik veri analizi yapma kapasitesi hızlı tehlike değerlendirilmesinde önemli ölçüde katkı sağlamaktadır. Bu çıktı ortak hasarlı yapıların değerlendirilmesinde ve depreme karşı hasarlı yapıların değerlendirilmesinde önemli katkı koymaktadır. Bu çıktı ortak hasarlı yapıların değerlendirilmesinde önemli katkı koymaktadır.
- **İki ve Güçlendirme Yöntem Değerlendirmeleri.** İki ve üç katlı betonarme yapıların ortak çalışma alanı için deprem tehlikesi ve risk değerlendirilmesinde depremlere dayanma kapasitesi ve risk değerlendirilmesinde önemli katkı koymaktadır. Bu çıktı ortak hasarlı yapıların değerlendirilmesinde önemli katkı koymaktadır.

SONUÇLAR

- EReS Projesi sonuçları ortak çalışma alanı genelinde ve bölgesel ölçekte sismik tehlike ve risk değerlendirilmesinde önemli katkı koymaktadır.
- EReS son teknoloji yöntemleri, iş birliği platformlarını ve risk azaltma stratejilerini bir araya getiren ortak çalışma alanı için katkı koymaktadır ve değerlendirilmesinde önemli katkı koymaktadır.
- Projesiyle elde edilen sonuçlar ve depreme yerel yöneticilerin bilgilendirilmesi ve yönlendirilmesi için ortak çalışma alanı için önemli katkılar sağlayacaktır.

ERES PROJESİ TEMEL FAYDALAR/KATKILAR (DEVAMI...)

PROJE'DE YER ALAN KURUMLAR

INTERNATIONAL HELLENIC UNIVERSITY, SERRES, HELLAS
<https://www.ihu.gr/en/>

GEZTE TEKNİK ÜNİVERSİTESİ, KOCAELI, TÜRKİYE
<https://www.gtu.edu.tr/>

AFAD
AFET VE ACIL DURUM YÖNETİME BAŞKANLIĞI, ANKARA, TÜRKİYE
<https://www.afad.gov.tr/>

INSTITUTE OF ENGINEERING SEISMOLOGY & EARTHQUAKE ENGINEERING, THESSALONIKI, HELLAS
<http://www.itsak.gr/en/>

Web: <https://eres-eu-project.topogeo.ihu.gr/>

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Deprem Dirençli Okullar Projesi

EReS

EARTHQUAKE RESILIENCE

EUROPEAN COMMISSION
ERES (EUROPEAN RESILIENT EARTHQUAKE RESILIENT SCHOOLS)

YILDIZ ÜNİVERSİTESİ
Proje 101101206 — EReS

EReS WP5 (Communication & Dissemination) Activities

b. Trainings at Schools

Disaster awareness trainings were given at **twelve schools** selected by the Provincial AFAD Directorates both in İzmir and Çanakkale.



EReS WP5 (Communication & Dissemination) Activities

At some pilot schools in Çanakkale low-cost seismometer device was introduced to the relevant teachers for the use of School Seismology practices.

Provincial directorate of National Education were informed about future School Seismology studies.



EReS WP5 (Communication & Dissemination) Activities

Planned Activities

a. Scientific publications & presentations

It is planned to provide information about the project and school seismology by attending two national workshops/ congresses.

- “*27th round table meeting on disaster risk management organised by Middle East Technical University*”,
- 77th Türkiye Geology Congress, which will be held on 14-18 April 2025, “**Session on Education on Geosciences**” .

b. Training

It is planned to provide detailed training to teachers and students on **School Seismology** in the selected pilot school in February.

Disaster awareness trainings will be repeated in selected schools by the provincial AFAD Directorates in the first week of March (National Earthquake Awareness Week).

c. Workshops

- Two days workshop was planned in Çanakkale on 27-28th of February in order to discuss the project and its results,
- One-day workshop was planned in İzmir on April in order to discuss the project and its results,



Programme
**Union Civil Protection
Mechanism (UCPM)**

Work programme part
UCPM-2022

Call
**Prevention and Preparedness Projects on Civil Protection and
Marine Pollution (UCPM-2022-PP)**

Work programme year
UCPM-2022

Type of action
UCPM-PJG UCPM Project Grants

Type of MGA
**UCPM Action Grant Budget-
Based [UCPM-AG]**



EReS

EARTHQUAKE RESILIENT SCHOOLS

Σας ευχαριστώ

