





WORKSHOP FOR STAKEHOLDERS AND SCHOOL COMMUNITIES IN TURKIYE

Deliverable No: D5.3

WP5. Communication & Dissemination

Task T5.3 Training of school community aiming at earthquake resilient scholls

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GEBZE TEKNİK ÜNİVERSİTESİ (GTÜ)

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B.2 - Prevention and Disaster Risk Management

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1 BACKGROUND OF THE DOCUMENT

1.1 RELATED WORKPACKAGE AND TASKS

This document describes the activities that took place in the framework of the WP5: Communication and Dissemination is related to the Task T5.3: Training of school community aiming at earthquake resilient scholls.

The workshop deliverable (combined activities T5.1 and T5.2) includes: invitation, agenda, signed presence list, target group, number of estimated participants, duration of the event, report of the event, training material package, presentations, evaluation report and feedback questionnaire.

The workshop held in Çanakkale is planned to last 2 days and be held in the language of the host country. It is envisaged that more than 50 people (civil defense personnel and school staff) will participate in the workshop and receive training on disaster risk management. Within the scope of the training; geography teachers of one school in each pilot site and selected students were trained on basic calculation methodologies of earthquake parameters obtained from acceleration records distributed in schools by AFAD seismologists. Thus, awareness on seismology and seismic risk will be increased. Sports, literature etc. activities in schools. There are social clubs on different subjects such as. As a result of the educational activities of school seismology, awareness will also be created about seismology and earthquakes.

1.2 SCOPE AND OBJECTIVES

The scope of this study is to outline the activities carried out within the framework of Task 5.3 aimed at accomplishing the project objectives. These efforts are ultimately geared towards attaining the Specific Objective of "Seismic Hazard Assessments" as stipulated by the funding Programme under the Call "Prevention and Preparedness Projects on Civil Protection and Marine Pollution (UCPM-2022-PP)." In pursuit of this goal, the present deliverable places emphasis on the following project objectives:

- 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.

Description of the task and excepted result are given;

- <u>a. Needs and Best Practices Analyses in Schools</u>: The objectives of the Needs and Best Practices Analyses are to identify: a) needs, weaknesses, challenges and opportunities, b) the status of preparedness of school community in participating countries, c) best practices, tools and methodologies that could adapted d) communication channels with school community.
- <u>b. Design and Production of Training Package:</u> The main objective of this sub-activity is to develop joint intervention and prevention protocols for schools. From this point of view, it is_important to develop an effective, targeted and users-friendly Training_Package of activities, videos, guidelines and theoretical background_on earthquake protection issues, in order to be used for training and dissemination actions.
- c. Dissemination Activities: A large variety of activities can be implemented for dissemination purposes including the following:
- (i) Participation in scientific meetings, congresses or any other çivil protection activity.
 - (ii) The Training Package will be posted in each partner's web site.
- (iii) The Training Package will be presented in various project meetings, will be used during workshops and training activities, but can be also presented in other collaborating schools, pupil groups, teachers, etc.
- <u>d. Training Activities:</u> Training of relevant teachers as trainers of pupils on school seismology topics like calculation of basic earthquake parameters at_one pilot school.

2 WORKSHOP FOR STAKEHOLDERS AND SCHOOL COMMUNITIES IN TÜRKİYE

2.1. Awareness and training

Within the scope of Task "Training of school community aiming at earthquake resilient schools", the training of the school community (teachers, students and staff), which is one of our primary target audiences, was carried out in two parts.

In the first part, awareness activities were organized for selected schools in our pilot provinces of Çanakkale and İzmir with the support of the Provincial AFAD Directorates. The main purpose of these awareness activities was to increase the knowledge of the school community about hazards, to increase their response behavior in the event of a disaster. These activities were carried out in the conference halls of the schools for half a day with the participation of relevant experts (Figure 1 and Figure 2) and were planned to be repeated every year.

Awareness raising trainings are part of the national training activity planned and carried out by the AFAD at different scales. The training of trainers has started in our schools and it is aimed to be spread throughout the country. Thus, the sustainability of disaster awareness training, which is one of the important goals within the scope of earthquake-resistant schools, will be ensured.



Figure 1. Photos from the awareness raising activities at pilot schools in Çanakkale.



Figure 2. Photos from the awareness raising activities at pilot schools in İzmir.

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Deliverable D5.3: Workshop for stakeholders and school communities in Türkiye

The second part of the school community earthquake training was scheduled on the "school seismology". The main purpose of school seismology is to increase awareness of earthquake topics in schools, to increase students' knowledge and skills in geology, geophysics and civil engineering, which are the basic disciplines working on earthquakes, and to increase students' knowledge on those disciplines. Increasing teachers' knowledge levels on earthquakes, ensuring that students are trained as earthquake-resistant individuals are the main targets of this study. The "School Seismology" study was carried out only in pilot schools selected in Canakkale province within the scope of the EReS project. Under the guidance of schoolteachers, basic earthquake science (related to geology, geophysics and civil engineering disciplines) training was provided to the selected students by AFAD personnel. In this process, it was suggested that the Civil Defense Clubs established in schools by the Ministry of National Education also participate to the process. Practical training with the visualization of earthquake data by using earthquake measurement devices installed in schools was was also included in the event and increased the attraction of the training by students (Figure 3). In these trainings, participants were informed about general earthquake information, the use of devices installed in schools, the evaluation of data obtained from these devices, and earthquake information-communication. Under the supervision of teachers, students were asked to regularly check the working status of the devices within the scope of club activities and to evaluate earthquake records, if any, and submit them to the AFAD Earthquake Department. A guide was prepared for teachers and students on the subject of "school seismology", explaining both the basic concepts, the earthquake event, and how to make a simple earthquake assessment from the earthquake measurement devices installed in schools, and was delivered to the relevant teachers.



Figure 3. Photos from the School Seismology trainings

Disaster awareness training and workshops for school communities, one of the main objectives of the Earthquake Resistant Schools "EReS" project. In Türkiye, training was provided within the scope of disaster by the list of Provincial AFAD Directorates to the pilot schools in İzmir and Çanakkale provinces. These trainings were also repeated in Çanakkale province within the subject of "School Seismology" and the knowledge and behavioral evaluations of those who participated in these trainings were measured with a short survey.

The survey was given to 19 teachers and students from pilot schools who participated in the "School Seismology" trainings in Çanakkale and they were asked to answer the questions before the training. The questions were generally prepared within the framework of general knowledge on earthquakes and the information given in the disaster awareness trainings before, and the same questions were given to the participants again at the end of the training to monitor the change in their knowledge capacity and whether the training was successful or not. As a result, it was observed that the number of correct answers given by the 19 individuals who participated in the survey to the same questions before and after the training increased (Figure 4). This change shows that while the number of correct answers given by the 19 individuals to a total of 10 questions before the survey was 109, the number of correct answers given after the survey was 141, which corresponds to an increase of approximately 30%.

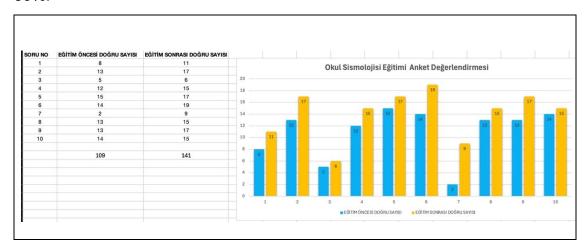


Figure 4. Statistical analysis of School Seismology Questionnaire.

A 32-page School Seismology application guide has also been prepared to assist students participating in the "School Seismology" training, and teachers who will be assigned to this subject on a permanent basis in the future (Figure 5). The School Seismology Application Guide also includes information for users on; General introduction to the EReS project, contributions of school seismology to teachers and students, basic concepts related to disaster and emergency

situations, seismicity of Türkiye, main active fault lines, earthquake hazard map of Türkiye, simple earthquake parameter calculations, Things to do before during and after earthquakes, basic features of the devices deployed at schools (Accelerometers). In order to ensure that "School Seismology" education will be used throughout the country for future, a brochure briefly summarizing the concept was prepared in the native language, printed and distributed to all participants in the workshops.

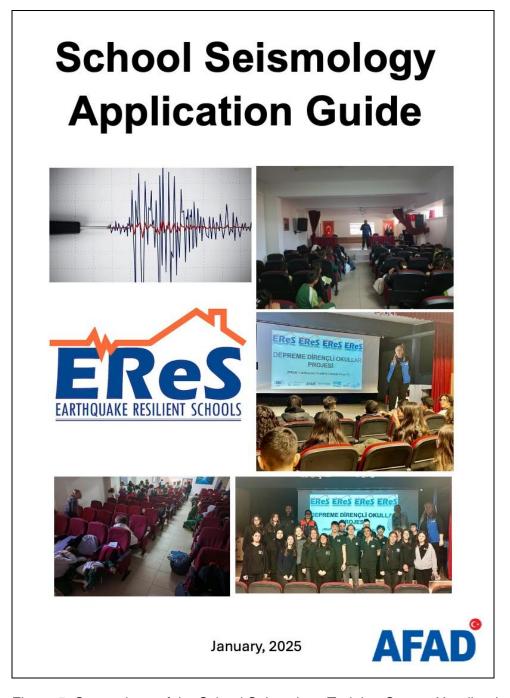


Figure 5. Cover photo of the School Seismology Training Course Handbook.

2.2. Workshop in Çanakkale

The workshop of the EReS project held in Çanakkale was carried out with the participation of 173 people, the workshop programme and the list of participants is given in Annex 1 and 2. The information about the meeting, the content of the project and the awareness about earthquakes had a wide impact in the written and visual press (Anadolu Agency, Doğan News Agency, İhlas News Agency, Hibya News Agency etc.) (Figure 6, and Figure 7). At the same time, the results of the workshop were also communicated to the users through various social media channels (Twitter, Facebook, Instagram etc.) (Figure 8 and Figure 9).

The Çanakkale awareness raising workshop was implemented at three different sessions including a) school seismology sessions, b) EReS Project Workshop and c) EReS Project Evaluation Meeting. 3 experts from AFAD visited Çanakkale 2 weeks before the Çanakkale workshop in order to organise the logistics of the workshop and also invite high level authorities of Çanakkale in person, including the Governor of Çanakkale, Mayor of Çanakkale, Rector of Çanakkale 18 Mart University, Local Director of Education, etc.

The first session implemented by the participation of students from 6 pilot schools in Çanakkale. 3 topics of earth sciences, geophysics and earthquake enginnering were introduced to students by AFAD experts. Theoretical trainings continued with realtime seismic instrument pratice where students experienced seismic instruments recording artificial earthquake effect.

2nd session of the event took place at Canakkale 18 Mart University Conference Hall. Almost 173 people from different governmental units, university staff and students and local representatives of NGOs participated to the event. The workshop started with inaguration by high level administrator from AFAD and Canakkale Province where Director General of AFAD Earthquake and Risk Reduction, General Director of Construction Affairs of Ministry of Education, Vice Mayor of Çanakkale and Vice Governor of Çanakkale made inagural speeches. Following this openning The Coordinator of EReS project and coordinator of WP5 presented the various aspects of the project to participants. The workshop continued with a panel session titled "Earthquake Fact of Canakkale and Our Schools" where both local, national and international participants made presentations both related with EReS project and earthquake risk reduction activities in Canakkale modearetd by Dr. Nurlu of AFAD. During the panel Prof. Özden made a presentation on the tectonics of Canakkale Region and Prof. Bekler made a presentation about the seismicity and seimic hazard of Çanakkale and surrounding region. Prof. Theodoulidis from ITSAK presented Greece's experiences on seismic risk management. The panel continued with presentations from two academicians from Istanbul Technical University, Prof. Zülfikar and Gebze Technical University, Prof. Tuğsal where different work package activities related with seismic hazard and risk within the framework of of Eres project were introduced to participants. Panel session finished with three presentations from Provincial Director of Education, Mrs. Hayta, Earthquake Department of AFAD, Mr. Köksal and Provincial Director of AFAD, Mr Artun where structural healt monitoring system and activities on resilient schools and disaster risk reduction activities performed in Çanakkale were performed to the participants. The panel concluded with Q&A seesion with a highlevel contribution from the participants.

3rd session of the Çanakkale event took place at AFAD Çanakkale meeting hall where representatives of project partner institutions discussed the ongoing and future planned activities of ERES Project.



Figure 6. Examples from the press releases of Çanakkale Workshop at both national and local print media agencies.

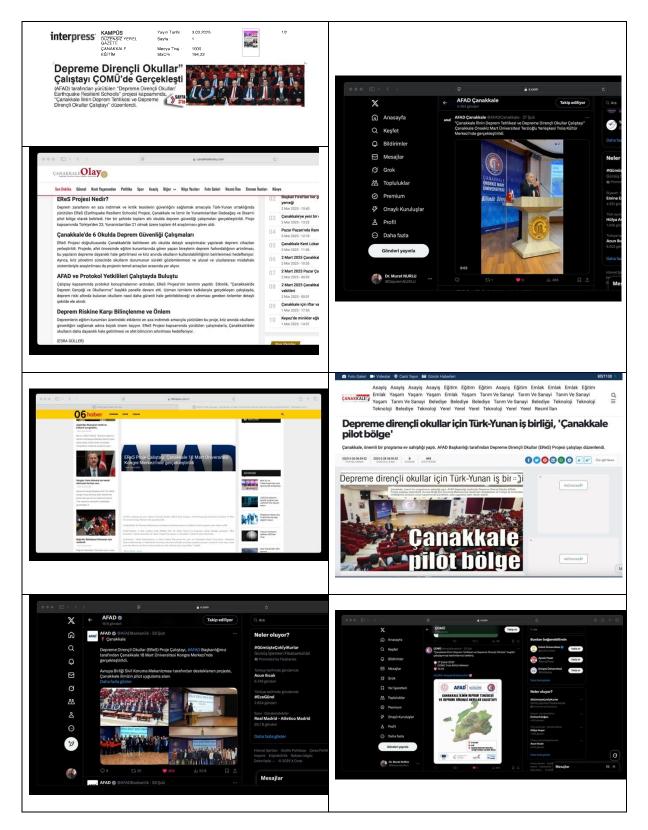


Figure 7. Examples to social media sharing by different print and social media agencies about EReS workshop in Çanakkale



Figure 8. Examples to social media sharings by different print and social media agencies about EReS workshop in Çanakkale



Figure 9. Examples to social media sharing by different print and social media agencies about EReS workshop in Çanakkale

ANNEX

- 1. Çanakkale workshop programme
- 2. Çanakkale workshop participant list

ANNEX-1

EARTHQUAKE RESILIENT SCHOOLS PROJECT

(EReS) Project Meeting



Çanakkale Onsekiz Mart University (Troja Culture Center-Terzioğlu Campus)



27/02/2025, Thursday

Agenda

4		Agenda		
-	School Seisr	nology Theoretical Education (Canakkale Onsekiz Mart University)		
	10.00-10.45	Earthquake Basics (Dr. Murat NURLU & Kerem KUTERDEM) Earthquake Resistant Construction (Teoman Selçuk KÖKSAL)		
	10.45-11.00	Break		
	11.00-11.45	3. Earthquake Observation Systems Applied to Buildings within the Scope of the EReS Project and Assessment of Earthquake Data (Meltem TÜRKOĞLU & Doruk ŞENTÜRK)		

EReS Project Presentation Workshop (Çanakkale Onsekiz Mart University)		
14.00-14.45	Opening Speeches 1) Prof. Dr. Orhan TATAR (General Director of Earthquake and Risk Reduction AFAD) 2) Özcan DUMAN (General Director of Construction and Property MEB) 3) Ali Hamza PEHLİVAN (President of AFAD) 4) Prof. Dr. R. Cüneyt ERENOĞLU (Rector of ÇOMÜ) 5) Doç. Dr. Ömer TORAMAN (Governor of Çanakkale)	
14.45-15.15	Presentation of EReS Project: Prof. Dr. Konstantinos PAPATHEODOROU* (International Hellenic University) and Dr. Murat NURLU (AFAD)	
15.15-15.45	Break	
15.45-18.00	Panel "Earthquake Truth in Çanakkale and Qur Schools" 1) Dr. Murat NURLU (AFAD Disaster Research Center) – Moderator 2) Prof. Dr. Süha ÖZDEN (Çanakkale Qusekiz Mart University) 3) Mine HAYTA (Çanakkale Provincial Director of National Education) 4) Prof. Dr. Tolga BEKLER (Çanakkale Qusekiz Mart University) 5) Prof. Dr. Nikolaos Theodoulidis* (ITSAK) 6) Assistant Proffesor Ülgen Mert TUĞSAL (Gebze Technical University) 7) Prof. Dr. Can ZÜLFİKAR (İstanbul Technical University) 8) MSc Çiyil Engineer Teoman Selçuk KÖKSAL (AFAD Earthquake Department) 9) Ahmet Ali ARTUN (Çanakkale Provincial Director of AFAD)	
18.00	Closure	
* Speech will be	in English where slides of the presentations will be available in Turkish Language.	











Earthquake Resilient Schools (EReS) Project Coordination Meeting



Provincial AFAD Directorate, Çanakkale 28/02/2025, Friday



Agenda

EReS Project Evaluation Meeting (AFAD Çanakkale Provincial Directorate)	
9.00-10.00	Technical Visit to the Pilot School (Prof. Zülfikar & Dr. Tugsal)
10.00-10.30	Opening by WP Leaders (Prof. Papatheodorou, Prof. Theoloulidis, Prof. Zülfikar, Dr. Nurlu)
	General Overview of Project Outcomes (Prof. Papatheodocou)
	Outcomes of WP2 (Prof. Zülfikar & Prof. Theoloulidis)
10.30-12.30	Break
	Outcomes of WP3 (Dr. Tugsal & Dr. Panagopoulos & Dr. Kirtas)
	Outcomes of WP4 (Prof. Zülfikar & Prof. Papanikolagu)
	Outcomes of WP5 (Dr. Nuriu & Dr. Kourou)
12.30-14.30	Launet
14.30-16.00	Discussion on Main Outcomes & Future Activities (Moderation by Prof.
	Capatheodorou)
16.00-17.00	Discussion on the Euture Project Calls of UCPM (Moderation by Prof. Theoloulidis)
17.00	CLOSUTE (Dr. Nurlu)









