



Ministry of Education of Republic of Azerbaijan  
Azerbaijan University of Architecture and Construction

International scientific-technical Conference

**NATURAL DISASTERS AND  
HUMAN LIFE SAFETY**

**PROGRAM**

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## **MEASURES TO PROTECT POPULATION FROM EARTHQUAKES IN ALMATY CITY BY CIVIL PROTECTION AND EMERGENCY SERVICES**

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A significant proportion of emergency situations of a natural character on the territory of Almaty occur to the earthquakes.

The main task of civil protection and emergency services (CP ES) is to protect people from earthquakes. For this purpose, the civil protection and emergency services of Almaty city are carrying out a complex of measures for deliberate preparation of the population for natural disasters. The alerting system plays an important role in ensuring the safe and timely evacuation of the population. In this regard, monthly training is conducted with the submission of “Attention all!” single signal through the alarm system, which includes 506 electric sirens and siren-speech installations in the city. However, this is not enough for such a metropolis as Almaty city with a population of 2.5 million people.

One of the important tasks of the civil protection and emergency services is to prepare the population for the earthquake and other emergencies. Thereby, training is given to the local people at all levels of the rule and procedure for dealing with emergencies. Students learn theoretical and practical skills; they are given memos, brochures and other information sheets.

Protection of the population from the destructive effects of earthquakes also includes the construction of buildings and structures in seismically dangerous areas in accordance with the norms of earthquake resistance and reinforcement of loadbearing structures of existing buildings and structures (foundations, walls, ceilings), taking into account the seismic risk for the corresponding territory. In the period 2010-2015 in Almaty city, the works on seismic reinforcement of 42 educational facilities and 24 health facilities were carried out. The adopted program for 2014-2020

provides for seismic reinforcement of 156 educational facilities and 89 health facilities. To date, about 70% of houses and buildings have not been strengthened.

In Almaty, demonstration exercises are conducted, the republican command and staff training sessions "Kys", "Koktem", "Jer", where the main goal is to increase the level of readiness of the State Civil Protection and Population System to eliminate emergencies during the winter and spring periods.

An analysis of the implementation of measures to protect local people by the CP and ES services showed that it is necessary to improve methods and develop more effective ways of informing and training the population.