

# STRENGTHENING DISASTER PREPAREDNESS IN ARMENIA BY INCREASING KNOWLEDGE, AWARENESS, AND CAPACITY

## Building resilience by preparing the next generation

### AT A GLANCE

**Country** Armenia

**Risks** Floods, earthquakes, landslides, hail, drought

**Area of Engagement** Scaling up city resilience, Deepening financial protection, Promoting resilient infrastructure, Strengthening hydromet services and early warning systems

In an effort to prepare the young population for disasters, the Government of Armenia developed an interactive online game for Armenian students in classrooms across the country.

## A SMALL COUNTRY FACING LARGE GEOLOGICAL HAZARDS

Earthquakes pose the biggest threat to Armenia as the country lies in a region of high seismicity. Earthquakes have affected large numbers of people and caused significant economic losses over the past 30 years. It is estimated that currently more than 2.5 million people live in 48 cities of Armenia located in seismically active areas. Furthermore, according to estimates, Yerevan—the capital and home to 40 percent of Armenians—is in one of the highest seismic risk areas. A World Bank analysis found that an earthquake with a magnitude of 7.0 or greater would destroy most of the buildings in the city of Yerevan, potentially killing some 300,000 people. Among the most destructive earthquakes in the history of Armenia was the Spitak earthquake of 1988, which killed 25,000 people, injured 15,000, left 517,000 people homeless, and caused significant damage to several cities. Moreover, the country is at risk from other natural disasters such as floods, landslides, hail, and droughts.

Disaster risk management (DRM) is increasingly recognized as an important aspect of the country's development. In the three decades since the 1988 earthquake, the Armenian government has passed significant legislation to improve risk reduction and emergency management systems, including laws and measures on risk reduction and emergency management. In April of 2017, the government adopted the Armenia National DRM Strategy and its 2017–2020 Action Plan for implementation, both of which are fully aligned



Pictured above: The online disaster preparedness game Super David, developed for Armenian schoolchildren to compete for the highest score, increases knowledge and capacity on what to do in an emergency situation. (Source: World Bank)

with the Sendai Framework for Disaster Risk Reduction 2015–2030 and the Sustainable Development Goals (SDGs). More recently, the government has invested in creating safer schools through a school safety improvement program to increase the impact and cover all schools by 2030.

## SUPER DAVID – THE HERO EDUCATING ARMENIA'S CHILDREN ON NATURAL DISASTERS

At the policy level, the government has collaborated with development partners to develop a national DRM program with a strategy and implementation plan. The established DRM program under the Government of Armenia seeks to prepare the population for natural disasters, in addition to policy measures such as a revised seismic building code and a strategic plan for future investments, such as retrofitting critical public facilities. In an effort to address gaps in disaster preparedness among the Armenian population, especially school-age children, a project on enhancing resilience was developed. This project sought to support the Government of Armenia in reducing risks to further advance disaster resilience through a grant provided by the Japan-World Bank Program for Mainstreaming Disaster Risk Management. Among numerous

activities developed under the project was the development of a school preparedness program, which included an online game or e-game called Super David, to raise awareness among children about natural disasters and to equip them with basic knowledge and readiness for emergency situations. Integration of disaster preparedness in school curricula and a vulnerability assessment have helped to engage students in Armenia. The country also benefitted from Japanese expertise and technical assistance through learning from disaster simulation drills in Japan, helping ramp up school readiness through evacuation drills for stronger preparedness and public awareness throughout Armenia. The Armenian government thereafter designed a school preparedness program that included the online game to engage students to learn, and built awareness and capacity around school preparedness in an interactive and participatory manner.

The Super David initiative encompassed 4,000 questions to develop and equip people's resilience toward natural disasters. The e-game, Super David—named after a legendary Armenian hero—was designed to strengthen disaster risk preparedness, particularly among the younger generations, through innovative experiential learning that promotes awareness of vulnerabilities across society and empowers children and communities with the knowledge, skills, and attitudes regarding local environments and how to reduce risks. The e-game consists of a range of questions and challenges dedicated to eight types of natural hazards: earthquakes, fires, lightning, landslides, floods, storms, rain deluges, and rock falls. By correctly answering the questions, students can earn stars and, after completing all eight stages of the game, they win the “super” award. Designed for students in the first grade and higher, the e-game is hosted by the Dasaran.am website and open to over 1 million registered users from around 1,500 schools across Armenia.

## LESSONS LEARNED

### Use Existing Technology Platforms to Integrate DRM Awareness in School Curricula

It is important to take stock of existing infrastructure and partnerships with schools, utilize the information, and respond appropriately. Tapping into the education technological platform used in schools across the country, the disaster preparedness curricula program using the e-game was more easily integrated by adding the new Super David module.

### Multi-Language Platforms Allow for More Participants to Engage

The e-game became popular among the school-age children because of its interactive and competitive nature. To expand application, the multi-language platform was created, enabling more students to participate.

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**More than 95,000**  
children are better prepared during  
emergency situations

### ELECTRONIC GAME DEVELOPED

The Super David e-game was created in just five months by the Dasaran Program team, which conducted rounds of consultations with students to identify their basic needs and interests. The team also worked closely with professionals from the Ministry of Emergency Situations on development of the content.

### INCREASED AWARENESS OF DRM

The project increased DRM awareness among more than 95,000 unique users from over 1,500 Armenian schools through the newly developed electronic game. Exceeding expectations, in the first month it was launched, the e-game had already been played over 1.3 million times.

*“I am not scared anymore, and I know that panic only worsens the situation. I know I have to try to provide first aid and then call 911.”*  
[Regarding learning how to help people during disasters]

— Gayane Harutyunyan, 6th Grade  
Student, Yerevan Basic School\*

\*Source: <https://www.worldbank.org/en/news/feature/2017/11/06/meet-super-david-the-hero-educating-armenias-children-about-natural-disasters>