



United Nations  
Educational, Scientific and  
Cultural Organization

Bangkok Office  
Asia and Pacific Regional Bureau  
for Education

# UNESCO and Children/ Youth in School Safety

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# Disasters in Asia and the Pacific region

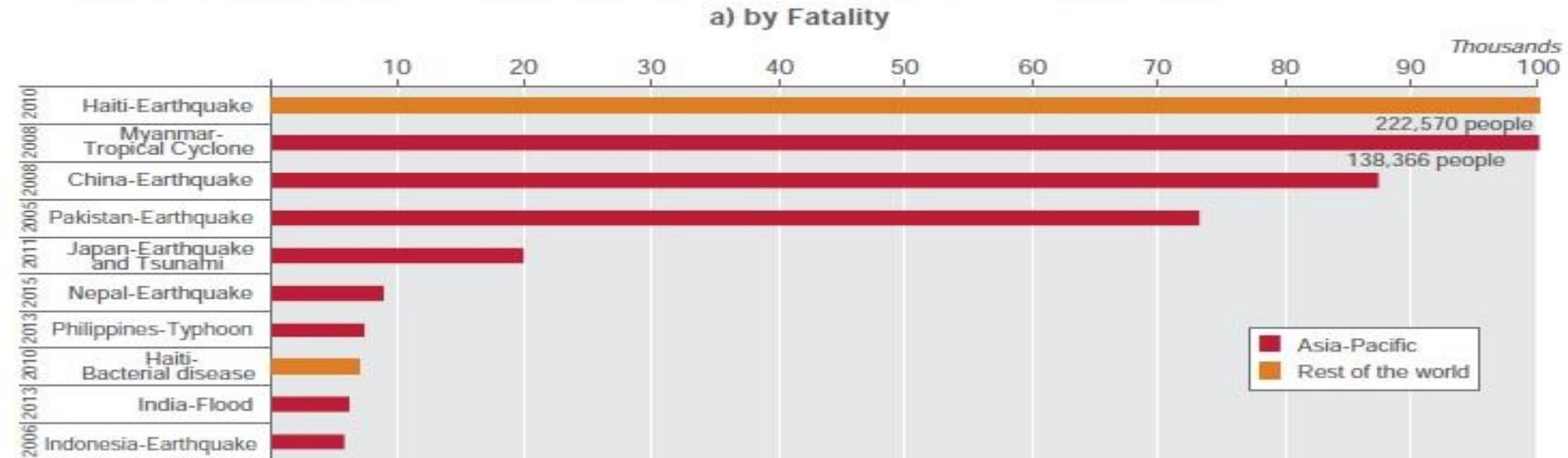
**1,625** reported disaster events (2005-2014) among 3,979 globally

Approximately **500,000 people** lost their lives (accounting for 60% of global total)

Around **1.4 billion people** were affected (accounting for 80% of global total)

**\$523 billion** worth of economic damage (accounting for 45% of global damage)

World's worst natural disasters occur in Asia and the Pacific, 2005-2015



Human impact of disasters in Asia and the Pacific, total 2005-2014

	Lives lost	People affected (millions)
Earthquakes and tsunamis	199,418	74
Storms	166,762	321
Floods	43,800	771
Others	73,772	199
<b>Total</b>	<b>483,752</b>	<b>1,366</b>

Source: ESCAP based on data from EM-DAT: The OFDA/CRED International Disaster Database. Available from <http://www.emdat.be/> (Accessed April 2015).

# Disasters in Asia and the Pacific region

**Great East Japan  
Earthquake in 2011**



**Ayutthaya Flood in  
Thailand in 2011**



**Nepal Earthquake  
in 2015**



**Typhoon  
Haiyan in the  
Philippines in  
2013**



# Why Education and Disaster Risk Reduction?



United Nations  
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***“What people know is more important than what they have when it comes to saving lives and reducing loss”***

UNESCO Policy Brief on DRR in Education



***Reducing risk and vulnerability to disasters requires people to understand how they can best protect themselves, their property and their livelihoods***

***“Use knowledge, innovation and education to build a culture of safety and resilience at all levels.”***

One of the top 5 priorities for action of the Hyogo Framework for Action (HFA)

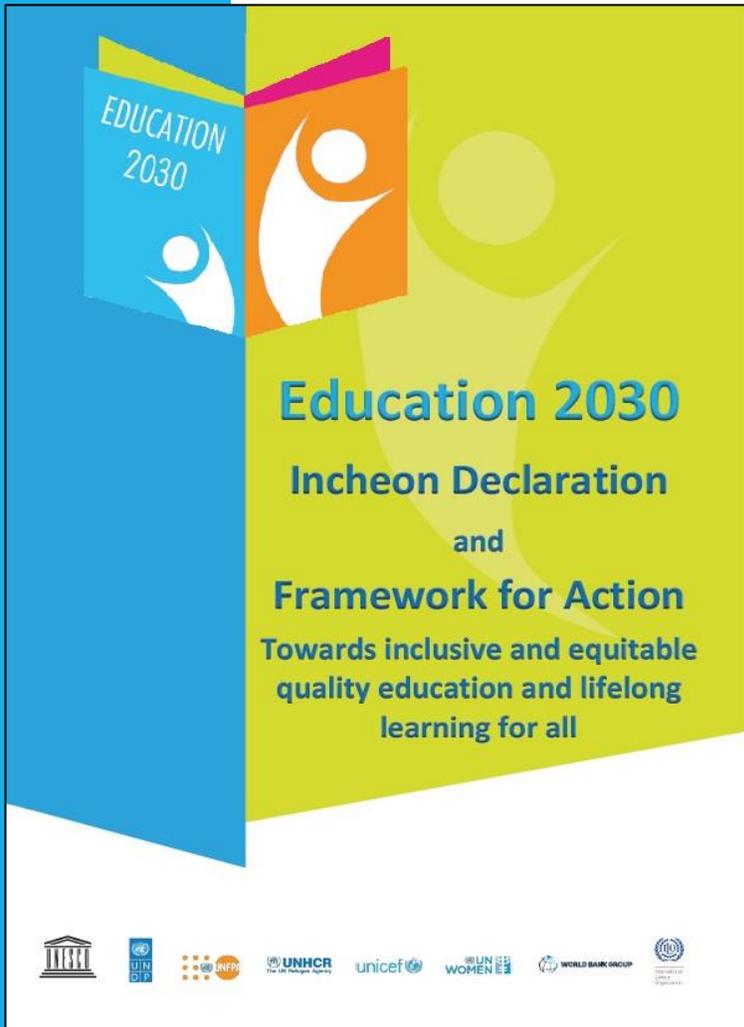
Hyogo Framework  
for Action 2005-2015:

Building the Resilience of Nations  
and Communities to Disasters

***Education as cross-cutting issue for Disaster Risk Reduction  
Relevant descriptions are embedded in the four priorities for action***

Sendai Framework  
for Disaster Risk Reduction  
2015 - 2030

# Why Education and Disaster Risk Reduction?



- **Crisis such as natural disasters, pandemics and conflict and the resulting internal and cross-border displacements is a major barrier to access to education**
- Education in emergency contexts is immediately protective, **providing lifesaving knowledge and skills and psychosocial support to those affected by crisis**. Education also **equips children, youth and adults for a sustainable future, with the skills to prevent disaster, conflict and disease**.
- **Countries must, therefore, institute measures to develop inclusive, responsive and resilient education systems**
- **Education sector plans and policies should anticipate risks and include measures to respond to the educational needs of children and adults in crisis situations**
- **The capacity of governments and civil society for disaster risk reduction, peace education, climate change adaptation and emergency preparedness and response should be strengthened at all levels to ensure that risk is mitigated and education maintained during all phases, from emergency response to recovery.**

# Education, an empowering tool

- **Global Action Plan on Education for Sustainable Development (GAP-ESD)**
  - Youth as one of the priority action areas  
*“Support youth in their role as change agents for sustainable development”*

# Children/Youth as Change Agents

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- **Recognition in the Sendai Framework for DRR for the need to establish the “space and modalities” for children and youth to contribute to disaster risk reduction as agents of change.**
- **Various examples across ASEAN countries of self-mobilised youth-led organisations and youth participation** in disaster preparedness training and emergency response activities.
- Over 10,000 young people mobilised in response to the 2011 Christchurch Earthquake.
- Inclusion of young professionals such as civil engineers, designers, architecture students in conducting school safety assessments in countries including Laos, Indonesia, El Salvador and Peru.
- Youth participation in ASEAN Emergency Rapid Assessment Team (ERAT) training.
- ASEAN DRR Youth Network concept successfully shared at the AHA Anniversary Event.
- Participation of youth representatives in discussions at **the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) in India, November 2016 and ISDR Asia Partnership.**
- “Disaster risk reduction” a foundational theme of the ASEAN Youth Volunteer Programme.
- The role of children in community awareness, adaptation and mitigating health risks.
- Youth recognised in the Joint Statement of ASEAN for the World Humanitarian Summit.

# Children/Youth as Change Agents

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How to involve children  
and youth?

**fun**, **interesting**, **engaging** and  
**empowering** ways! 😊

# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

### Gamification

*the use of game elements and game design techniques in non-game contexts*

#### Game elements/Design techniques

- Quests/Challenges (e.g. finding objects)
- Avatars
- Progression
- Level

#### Disaster Risk Reduction

#### *Mobile Game Applications*

#### Non-game context

- Raising Awareness on Flood Safety
- A real life case of the deluge in Thailand in 2011

# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

### *Sai Fah: the Flood Fighter*

- Prepare young learners with key lessons on flood preparedness
- Adapted **real-life case from flood disaster in Ayutthaya, Thailand** in 2011 which affected 66 provinces and caused 680 human casualties
- **Officially recommended application by the Thailand Ministry of Education**
- **Available in Bahasa, English, French, Korean and Thai**
- Supported by Japanese government and Korean local government
- Downloaded more than 160,000 times in more than 140 countries



# UNESCO's Activities Mobile Game Application on Disaster Risk Reduction

*Click to watch  
a short video  
clip*



# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

### *User/player's review*



*“So much fun! I learnt flood survival skills by doing the challenges. It’s different from other internet games because this game teaches kids practical lessons. Will recommend to my friends!”*

Natchalita Nilkeaw, 10 (The first player to complete all levels)

*“It’s a very fun game and the lessons I learnt can be applied to daily life.”*

Thamphitak Rakwiratham, 9

*“Nice graphics and animation. Easy to understand. The challenges and mini-puzzles teach children to be more alert and aware of their surroundings during a flood situation.”*

Kritpipat Kritiananpat, Ministry of Education staff



*“An awesome game that encourages you to think of creative solutions.”*

Phanisuan Inthamahan, 12



# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

### *Tanah: the Tsunami and Earthquake Fighter*

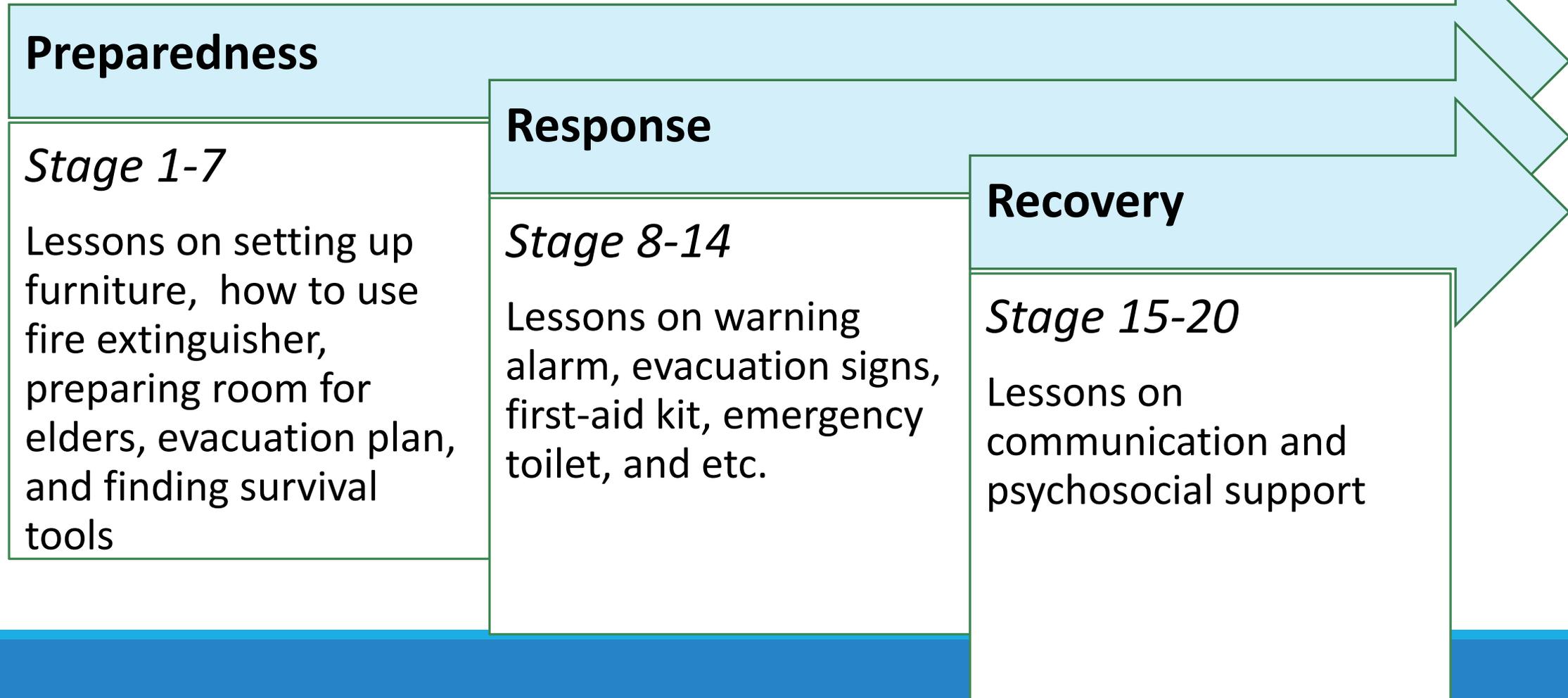
- Providing learners with **key lessons on earthquake and tsunami safety covering all phases of disaster from preparedness to recovery**
- Adapted real-life cases such as **Indian Ocean Earthquake and Tsunami in 2004 and Nepal Earthquake in 2015**
- Available in **Bahasa Indonesian, English, Nepali, Spanish and Thai**
- Supported by American Red Cross/USAID, UNESCO Country Offices (Kathmandu and Santiago)



*Click to watch a short video clip*

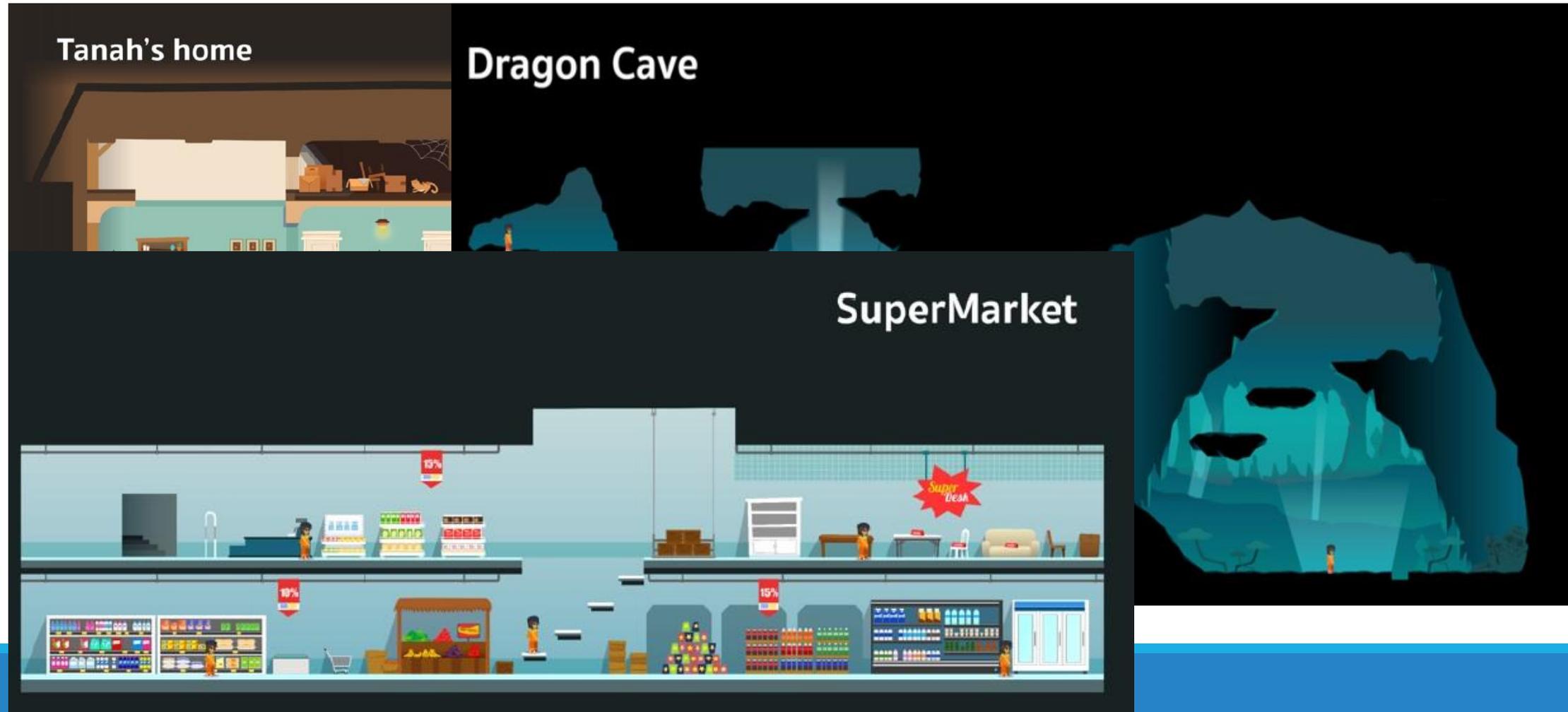
# UNESCO's Activities Mobile Game Application on Disaster Risk Reduction

## Game stages and Lessons



# UNESCO's Activities Mobile Game Application on Disaster Risk Reduction

Settings and backdrops



# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

Promotion activities



**World Conference on Disaster Risk Reduction in Sendai, Japan in March 2015**

*Madame Yoo Soon-taek, the wife of United Nations Secretary-General Ban Ki-Moon, expressed her enthusiasm for “Sai Fah” after visiting a booth featuring the app in the main exhibition area at Sendai Mediatheque*

*UNESCO Bangkok press release*

# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

Promotion activities

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Introduction activities in Latin  
America – Quito, Ecuador

# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

### Promotion activities



Introduction activities in  
Bangkok, Thailand

# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

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### **Future Activities**

- Developing game applications covering different types of hazards in different languages.
- Carrying out promotion activities to reach out to more users and players
- Developing mobile applications utilizing innovative technique such as Virtual Reality Simulation (VR) to provide more realistic/effective lessons for learners while they enjoy playing applications

# UNESCO's Activities

## Mobile Game Application on Disaster Risk Reduction

### Virtual Reality (VR) Simulation

Combination of Gamification and Virtual Reality Simulation (VRS) to introduce more realistic and engaging paradigms of learning.

- *Experiences of chaotic situations virtually*
- *Action-oriented, lifelike and participatory knowledge*
- *Different situations and scenarios*

knowledge and expertise will be derived from different country and regional contexts including Asia-Pacific and Latin America/Caribbean region



# Looking Beyond Disasters/Youth Beyond Disasters

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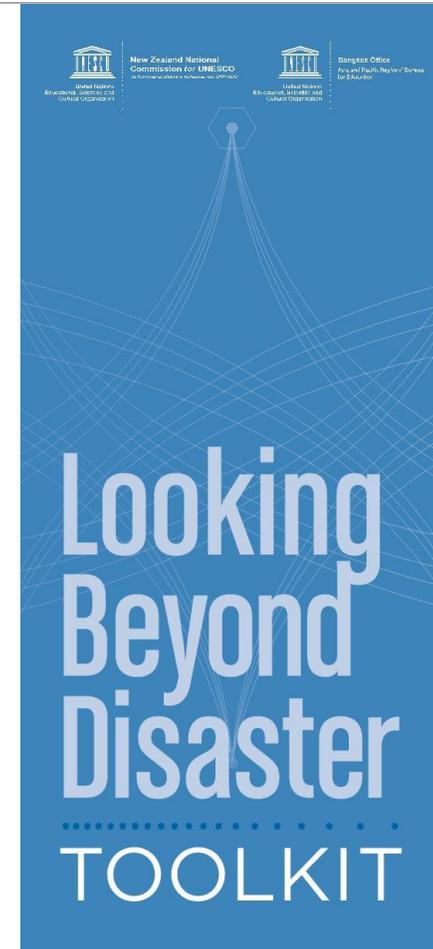
Established to enable youth to be engaged in Disaster Risk Reduction

## General Objectives

- **A global network** of young people and professionals empowered **to share experiences and exchange ideas** on disaster and community;
- Sharing results of action plans and experiences during disasters;
- **International youth projects** designed at the forums to be implemented in different countries;
- Ongoing facebook and **other social networking discussions**;
- **Recommendations to governments, UN bodies and others on youth resilience, rebuilding communities and disaster response**;
- Publication(s) on disaster narratives by youth, experts, and videos

# Looking Beyond Disaster Youth Forums /Youth Beyond Disasters Network

- A focus on “creating solutions now” rather than “solving problems later”.
- Skills to lead community change.
- Shared values and principles including respect for one another – “Kaupapa”.
- Supported by participant-facilitators.
- Consideration of learning styles.
- Documentation and online sharing.



# Looking Beyond Disaster Youth Forums /Youth Beyond Disasters Network



- **DRR training workshops targeting young professionals and university students.**
- Working with **youth in local communities** to develop solutions based on local needs.
- Opportunities for experience sharing and cross-fertilisation of knowledge.
- **Supporting youth engagement in disaster risk reduction policy-making and advocacy.**
- **Helping to build resilience and disaster preparedness among young people.**

# Looking Beyond Disasters/Youth Beyond Disasters

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**Two trainings for trainers** are planned in 2017

- Respectively in Asia and the Pacific
- Youth as main organizer of the trainings to strengthen their capacity, with support from UNESCO Bangkok as well as different partners
- Providing youth with opportunity to review and pilot the toolkit in their communities and share feedback – revision of the toolkit

# VISUS and Youth in DRR

## Learning on School Safety through VISUS

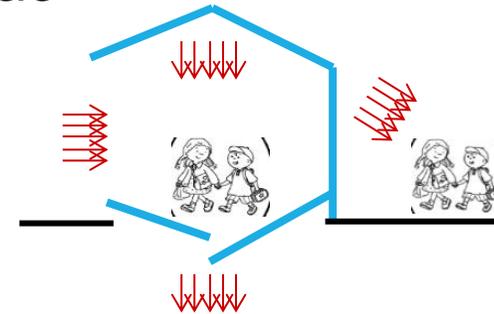
(VISUS: Visual Inspection for defining the Safety Upgrading Strategies)



More than 60 students from engineering faculty and building construction vocational schools in Indonesia were trained on multi-hazard school safety assessment methodology and tools through science-based information.



The students were trained on how different hazards can impact school facilities and how to prevent and reduce the risk of disaster. Using the VISUS methodology and tools the students are trained to assess the safety aspect of the school. The training includes hands on and practical practices in which the students did school safety survey in 160 schools in Indonesia. The survey result will help the policy makers in deciding where to focus in their risk reduction effort in school safety.



# Way forward and Suggestions

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**Disaster Risk Reduction is everyone's business** – actors/learners at all age including children and youth should be actively engaged.

Not only vulnerability of children and youth but also **their capacity to support themselves, family, friends and neighbors should be addressed and supported to strengthen it.**



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# Thank you very much!

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