United Nations
Educational, Scientific and
Cultural Organization

Disaster Risk Reduction

UNESCO's contribution to a global challenge

laming gas crater known as the Door to Hell in Darvaza, Turkmenistan. © Shutterstock / Lockenes

Improving Risk Information and Early Warning Systems

UNESCO promotes scientific exchange and collaborative efforts in order to establish effective early warning systems for different hazards such as tsunamis, landslides, volcanoes, earthquakes, floods and droughts. UNESCO helps Member States to collectively achieve effective early warning and monitoring, helps coordination between existing research centers and educates communities at risk about preparedness measures, including setting up warning and emergency response Standard Operating Procedures and community drill exercises. UNESCO promotes community-based approaches in the development of response plans and awareness campaigns, which strongly involve educational institutions and end-users.

Simulation exercise during 2014 of the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions. © UNESCO / Bernardo Aliaga

UNESCO Sites and Disaster Risk Reduction

UNESCO encourages the identification of risks, protection from different hazards (including climate change) and the preservation of UNESCO designated and affiliated sites including World Heritage Sites, Biosphere Reserves and UNESCO Global Geoparks. In this sense UNESCO supports Member States to integrate heritage and disaster risk reduction into national disaster reduction policies including management plans and systems for World Heritage properties in their territories. Through their commitment to being learning sites for sustainable development in unique ecosystems around the world, Biosphere Reserves offer opportunities to understand the way changing environments impact communities. UNESCO Global Geoparks play an active role in telling the story of past and active geological processes and the way they affect people. Many UNESCO Global Geoparks have community and school programmes to educate about the source of geo-hazards and ways to reduce their impact including disaster response strategies.

Borobudur Temple, community-based rehabilitation work and sustainable tourism development. © UNESCO and National Geographic Indonesia

School Safety

UNESCO empowers schools and their communities, as well as national and local governments, in the identification of the hazards and risks they are exposed to and their vulnerabilities by enhancing their capacity to manage them, and by implementing activities and setting standards for school safety and methodologies for school assessment (VISUS). This methodology serves as a resource for supporting policy makers to decide where to focus their risk reduction efforts and interventions. A comprehensive framework for school safety has been adopted by the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector which consists of three overlapping pillars: safe learning facilities, school disaster management, and risk reduction and resilience education. UNESCO chairs and holds the secretariat of this Alliance. The Organization also supports governments in the integration of disaster risk reduction into the curriculum and schools to set up management plans, training administrators as well as teachers and students in the process.

VISUS

© Sprint, Universidad de Udine

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Community Resilience

UNESCO strengthens the resilience of communities to withstand natural hazards and climate change impacts. By identifying and documenting local and indigenous knowledge related to hazards and climate change adaptation, UNESCO helps in community preparedness and hazard mitigation. UNESCO develops educational and awareness-raising materials and tools and assists governments and communities in developing policies and managing in dealing with natural hazards and strengthening capacities through the sharing of lessons learned and good practices. Furthermore, UNESCO supports the efforts of Member States in measuring their vulnerability and/or resilience to natural hazards and to objectively understand and benchmark conditions that affect social and economic aspect.

Building community resilience in El Salvador. © UNESCO/Jair Torres

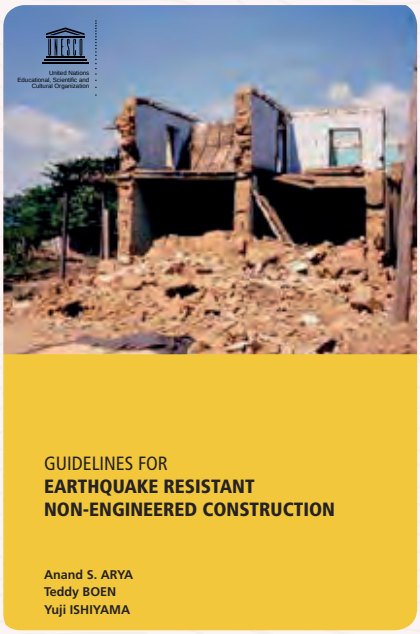
Post-Conflict and Post-Disaster Situations

UNESCO supports countries in post-conflict and post-disaster situations by ensuring strategic responses, including through efficient and timely provision of field support, adequate staffing and administrative support mechanisms in its areas of competence. UNESCO actively participates in the United Nations post-crisis coordination mechanisms, including joint needs assessments and formulation of multi-donor appeals. UNESCO undertakes post- disaster field investigations in order to determine the causes of the disaster that can inform policy and produce and disseminate lessons to be learned. UNESCO also provides assistance for the Field Investigation and Rehabilitation of UNESCO sites, including the setting up of a Rapid Response Facility. UNESCO trains teachers and parents to interactive learning and the complex aspects of emergency education, including psychological support for children and youth.

Post-disaster engineering field investigation of building damage. Bohol, Philippines © UNESCO/ S. Yasukawa

Making Disaster Risk Reduction a Priority through Policy Recommendations

UNESCO provides an interface for disaster risk reduction between scientists, policy-makers and civil society. UNESCO prepares technical documents that serve national and local governments to better prepare and mitigate the risks related to natural hazards. UNESCO, through its areas of expertise, is also engaged in disaster risk reduction policy analysis and in the provision of recommendations and guidelines to Member States.



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A Platform for Knowledge Exchange and Scientific Cooperation

UNESCO, through international scientific collaboration and its different academic networks and programmes, promotes and fosters knowledge exchange in geological, hydro-meteorological and marine hazards. UNESCO conducts activities and research that improve quality of data, early warning, hazard mapping and vulnerability assessments. UNESCO works closely with national institutions, UNESCO centres and chairs and promotes inter-institutional and regional cooperation.

© Commission of the Geological Map of the World/UNESCO

Ecosystems Services

UNESCO promotes the implementation of ecosystem-based disaster risk reduction. The Organization supports that this approach is mainstreamed in development planning at global, national and local levels and participates actively in the ongoing activities of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and the Partnership for Environment and Disaster Risk Reduction.

Mangroves play an important role in buffering coastlines against tsunamis and adapting to gradual sea-level rise, Papua New Guinea © UNESCO /Marta Vanucci

Strengthening Scientific Capacities for Disaster Risk Reduction

UNESCO facilitates and implements technical training workshops and research activities in disaster risk reduction to improve the capacities of countries to cope with natural hazards. These capacity building activities result in enhancing the current knowledge and in proceedings and resource materials to help decision-makers and stake-holders to build their capacity in managing disaster risks as well as creating networks of technical experts.

Aerial view of the Sabu Bale Temple surrounded by high water after the 2009 floods in the Indus River. © Government of Pakistan

Reducing Earthquake Losses in the South and Central Asian Region. © Ingrid Verstraeten

List of Programmes, Networks and Initiatives UNESCO leads or participates in

UNESCO's work in Disaster Risk Reduction is developed by its different programmes, networks and initiatives, and by the actively participation in different Disaster Risk Reduction groups:

- African Network of Earth Science Institutions – ANESI
- Future Earth
- Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector - GADRRRES
- Global Earth Observing System of Systems – GEOSS
- Global Earthquake Model – GEM
- Global Geoparks Network – GGN
- Global Ocean Observing System – GOOS
- Intergovernmental Oceanographic Commission - IOC
- International Consortium on Landslides – ICL
- International Drought Initiative – IDI
- International Engineering Initiative
- International Flood Initiative – IFI
- International Geoscience and Geoparks Programme – IGGP
- International Hydrological Programme – IHP
- International Platform on Earthquake Early Warning Systems – IP-EEWS
- International Platform for Reducing Earthquake Disasters – IPRED
- International Sediment Initiative – ISI
- Local and Indigenous Knowledge Systems Programme – LINKS
- Man and the Biosphere Programme – MAB
- Management of Social Transformations Programme – MOST
- Partnership for Environment and Disaster Risk Reduction – PEDRR
- Reducing Earthquake Losses in the Extended Mediterranean Region – RELEMR
- Reducing Earthquake Losses in the South and Central Asian Region – RELSAR/RELCAR
- UNESCO's Earth Science Education Initiative in Africa – ESEIA
- World Heritage Center – WHC
- Worldwide Initiative for Safe Schools – WISS

SC/DRR/ENG/2015/rev2016

UNESCO and Disaster Risk Reduction

UNESCO operates at the interface between natural and social sciences, education, culture and communication playing a vital role in constructing a global culture of resilient communities. UNESCO assists countries to build their capacities for preventing disasters and managing climate risk, and with their ability to cope with natural hazards. The Organization provides a forum for governments to work together and it provides essential scientific and practical advice in disaster risk reduction.

Working alone or in collaboration with both UN Agencies and other scientific entities, UNESCO has been a catalyst for international, inter-disciplinary cooperation in many aspects of disaster risk reduction and mitigation. UNESCO leads Intergovernmental Oceanographic Commission and several international and intergovernmental scientific programmes (including, the International Hydrological Programme, and the International Geosciences and Geoparks Programme) that provide the framework for its current and future strategies.

Member States and the international community adopted the "Sendai Framework for Disaster Risk Reduction 2015-2030" at the Third UN World Conference on Disaster Risk Reduction which was held in Sendai, Japan, in March 2015. This framework defines the 2030 international agenda for disaster risk reduction and UNESCO is committed to operating in line with it, as well as with the Sustainable Development Goals and the 2015 Paris Agreement, to promote a culture of safety and resilience.

The work of the Organization is being developed and implemented through its different Sectors, Field Offices, Designated and Affiliated Sites, Category I and II Centers, UNESCO Chairs and Networks.

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