ATLANTA INTERNATIONAL SCHOOL
MODEL UNITED NATIONS

AISMUN VII
Background Guide

Committee: UNESCO (The United Nations Educational, Scientific and Cultural Organization)

Topic:
Building Resilient Societies: Disaster Education, Early-Warning Science, and the Protection of Cultural Heritage from Natural Hazards

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Letter from our Chairs

Dear Delegates,

Welcome to the United Nations Educational, Scientific and Cultural Organization (UNESCO). This committee will discuss Building Resilient Societies: Disaster Education, Early-Warning Science, and the Protection of Cultural Heritage from Natural Hazards.

Natural hazards such as earthquakes, tsunamis, floods, hurricanes, wildfires, volcanic eruptions, droughts, and landslides can affect communities with little warning. However, a natural hazard does not automatically have to become a major human disaster. The amount of damage often depends on how prepared a society is before the event occurs. Education, scientific monitoring, effective warning systems, safe infrastructure, and well-practiced emergency plans can all reduce the loss of life and property.

UNESCO has a particularly important role because its mandate connects education, science, culture, and communication. UNESCO promotes disaster-risk education and school safety, while its Intergovernmental Oceanographic Commission (IOC) helps coordinate international tsunami-warning systems. UNESCO also assists governments and communities in protecting cultural heritage before, during, and after emergencies.

Throughout this committee, delegates should consider an important question: How can the international community use education and science to protect both people and the heritage that gives communities their identity?

Delegates are encouraged to think beyond simply responding after disasters. Strong resolutions should consider prevention, preparedness, warning, response, and recovery. They should also recognize that countries have different financial resources, technologies, geography, and levels of exposure to natural hazards.

We look forward to thoughtful debate, realistic solutions, and productive diplomacy.

Sincerely,
Saksham Seth, Aga Akturk, Neel Heilmann

Introduction to UNESCO

UNESCO, or The United Nations Educational, Scientific and Cultural Organization is an agency that began on November 16th, 1945. Its foundational purpose was to veer from the destructive path that led to world war II, and to promote world peace through the means of academia pertaining to global cooperation in education, arts, sciences and culture.

As a result, the committee promotes the free flowing of ideas across the world, and strives towards a unified understanding of the workings of natural phenomena and humanitarian culture. Through further understanding of science, culture, and education, a global understanding can be obtained and used towards the effort to improve all lives. Today the mission of this organization is more needed than ever to fight the restriction of cultural diversity and dispute the rejection of scientific facts. Overall, by continuously striving for the continuous and fruitful addition of human knowledge an international understanding can be met that ensures peace for all.

Key Terms

Natural Hazard: A naturally occurring event or process, such as an earthquake, tsunami, flood, wildfire, drought, hurricane, volcanic eruption, or landslide, that has the potential to cause harm.

Disaster: A serious disruption that causes major human, economic, environmental, or material losses and exceeds a community's ability to cope effectively using its available resources.

Disaster Risk Reduction (DRR): Actions taken to understand existing risks, prevent new risks, and reduce the effects of disasters. UNESCO applies DRR to areas including education and cultural heritage.

Resilience: The ability of individuals, communities, institutions, or societies to prepare for, withstand, respond to, and recover from disasters.

Early-Warning System (EWS): A system that detects or forecasts a dangerous event and communicates useful warnings early enough for people to take protective action.

Multi-Hazard Early-Warning System (MHEWS): An early-warning system designed to address multiple hazards rather than only one. The UN's Early Warnings for All framework identifies four major elements: understanding risk; detecting and forecasting hazards; communicating warnings; and preparing people to respond.

Disaster Risk Knowledge: Information about which hazards may occur, who or what is exposed to them, and how vulnerable a community may be.

Preparedness: Actions taken before a disaster, such as evacuation planning, emergency drills, public education, storing emergency supplies, and developing communication procedures.

Mitigation: Measures designed to reduce the severity of a disaster's effects. Examples include strengthening buildings against earthquakes or improving drainage in flood-prone communities.

Tangible Cultural Heritage: Physical heritage such as monuments, buildings, archaeological sites, artifacts, and other culturally significant objects or places. The 1972 World Heritage Convention provides an international framework for protecting cultural and natural heritage.

Intangible Cultural Heritage: Traditions, practices, knowledge, skills, and cultural expressions passed between generations. UNESCO's 2003 Convention established an international framework for safeguarding this living heritage.

World Heritage Site: A cultural or natural property recognized under UNESCO's World Heritage Convention as possessing outstanding universal value.

Retrofitting: Modifying an existing structure to make it safer or more resistant to hazards such as earthquakes, floods, or fires.

Evacuation: The organized movement of people away from an area threatened by a hazard.

Risk Mapping: Identifying areas, populations, infrastructure, and heritage sites that are particularly exposed to hazards.

UNESCO Timeline

1945: Creation of UNESCO: UNESCO was established following the Second World War with a mission centered on building peace through international cooperation in education, science, and culture.

1960: Nubian Monuments Campaign: UNESCO launched a major international effort to protect ancient monuments threatened by flooding connected to the construction of the Aswan High Dam. The campaign became an important example of international cooperation to protect heritage.

1965: Pacific Tsunami Warning System: An international tsunami-warning and mitigation system was established in the Pacific under UNESCO's IOC framework following destructive Pacific tsunamis.

1972: World Heritage Convention: UNESCO adopted the Convention Concerning the Protection of the World Cultural and Natural Heritage on November 16, 1972, creating a major international framework for protecting important cultural and natural sites.

2003: Intangible Cultural Heritage Convention: UNESCO adopted the Convention for the Safeguarding of the Intangible Cultural Heritage, expanding international heritage protection to traditions, knowledge, practices, and other forms of living heritage.

2004: Indian Ocean Tsunami: A magnitude 9.1 earthquake near Sumatra generated a catastrophic tsunami. UNESCO's IOC reports that more than 227,000 people were killed across 15 countries. The disaster demonstrated the consequences of major gaps in early-warning infrastructure and community preparedness.

2005: Expansion of Tsunami-Warning Cooperation: Following the 2004 disaster, UNESCO-IOC helped establish warning and mitigation systems covering the Indian Ocean, Caribbean, Northeast Atlantic, and Mediterranean regions.

2015: Sendai Framework for Disaster Risk Reduction: UN Member States adopted the Sendai Framework for 2015–2030. Its four priorities include understanding disaster risk, strengthening disaster-risk governance, investing in resilience, and improving preparedness and recovery.

2015: UNESCO Heritage Emergency Fund: UNESCO established the Heritage Emergency Fund to provide flexible support for protecting culture during conflicts and disasters.

2022: Early Warnings for All: UN Secretary-General António Guterres announced the goal of protecting everyone on Earth from hazardous weather, water, and climate events through early-warning systems by the end of 2027.

2023–2027: Implementation of Early Warnings for All: The international initiative focuses on four pillars: risk knowledge; observation and forecasting; warning communication; and preparedness to respond.

UNESCO supports scientific aspects of the initiative alongside organizations including WMO, UNDRR, UNDP, UNEP, ITU, and IFRC.

Topic Introduction

Earthquakes cannot be prevented. Neither can hurricanes, volcanic eruptions, or tsunamis. However, the scale of the resulting disaster can often be reduced.

Consider two coastal communities exposed to the same tsunami. One has hazard maps, sirens, evacuation routes, trained teachers, regular drills, and residents who understand that strong earthquake shaking may mean they should immediately move to higher ground. The other community lacks these protections.

The tsunami may be the same natural event, but the human consequences can be very different.

This distinction is central to disaster risk reduction. The Sendai Framework emphasizes understanding not only hazards themselves but also exposure, vulnerability, capacity, and the environment.

For UNESCO, three areas are especially important.

Disaster Education

Education can turn scientific information into actions that save lives. Students can learn what hazards threaten their region, how warnings work, where evacuation routes are located, and what to do during emergencies.

Schools are also important community institutions. Disaster education can spread beyond students because young people bring information home to their families.

However, education cannot protect students if schools themselves are unsafe. UNESCO therefore supports both disaster-risk education and efforts to improve the physical safety of schools.

Delegates should consider whether disaster education should become a standard part of national curricula in hazard-prone regions and how these programs could be adapted to different ages, languages, disabilities, and local risks.

Early-Warning Science

An early warning is useful only if it leads to action.

Modern warning systems may use seismic instruments, satellites, ocean buoys, weather radar, river gauges, computer models, and other technologies. Scientists analyze this information to determine whether a dangerous event is occurring or developing.

But detection is only part of the system.

The UN's Early Warnings for All approach identifies four connected pillars:

1. Disaster risk knowledge
2. Detection, observation, monitoring, analysis, and forecasting
3. Warning dissemination and communication
4. Preparedness and response capabilities

A perfect forecast has limited value if the warning never reaches the people at risk. Similarly, a warning may reach residents but fail if they do not understand it or do not know how to respond.

Warnings therefore need to be timely, understandable, accessible, trusted, and actionable.

The challenge is also international. Hurricanes, tsunamis, droughts, wildfires, and floods do not necessarily remain within national borders. Scientific data collected in one country may help another country prepare. UNESCO-IOC's tsunami systems demonstrate how countries can cooperate by sharing scientific information across entire ocean basins.

Protecting Cultural Heritage

During an emergency, protecting human life must remain the immediate priority. However, disaster planning should also consider what happens to cultural heritage.

A flood can destroy centuries-old manuscripts. An earthquake can collapse historic buildings. A wildfire can damage archaeological sites. A tsunami can destroy museums and religious structures. Disasters can also force communities away from places where traditional practices have been passed between generations.

UNESCO therefore treats heritage protection as part of disaster resilience rather than something completely separate from it. The organization supports disaster-risk management plans, emergency procedures, training, and post-disaster assessments for heritage.

This protection matters because heritage is connected to community identity and recovery. UNESCO argues that restoring cultural life after disasters can contribute to social cohesion, dignity, economic stability, and resilience.

The challenge for delegates is determining how governments can protect heritage without diverting emergency resources away from saving human lives.

Unequal Access to Protection

Not every country has the same resources.

Advanced forecasting requires trained scientists, communications infrastructure, monitoring equipment, reliable electricity, data systems, and long-term funding. Poorer or geographically isolated communities may struggle to maintain these systems.

This creates an international cooperation problem: a disaster-resistant world cannot be created simply by telling every country to purchase more technology.

Delegates should therefore consider financing, technical assistance, regional warning networks, scientific data sharing, teacher training, and partnerships between developed and developing states.

The issue is not simply whether technology exists. It is whether the people who need it can actually access, understand, maintain, and act upon it.

Understanding of Different Parties Involved

UNESCO

UNESCO connects the three major areas of this topic: education, science, and culture. It supports disaster-risk education, school safety, scientific cooperation, tsunami-warning systems, and cultural-heritage protection. UNESCO also develops training resources and helps Member States strengthen their ability to prepare for emergencies.

UNESCO Intergovernmental Oceanographic Commission (IOC)

The IOC coordinates international cooperation in ocean science and plays a major role in global tsunami-warning and mitigation systems. Regional warning providers analyze information and provide threat information to Member States, while individual countries remain responsible for their national warning and response systems.

National Governments

Governments have primary responsibility for protecting people within their territory. They may establish building codes, evacuation procedures, emergency agencies, school curricula, warning systems, heritage regulations, and national disaster-response plans.

Governments must also decide how limited resources are distributed among prevention, emergency response, infrastructure, education, science, and heritage protection.

Local Governments

Local authorities often have the closest relationship with affected communities. They may manage evacuation routes, shelters, local emergency services, schools, public-warning systems, and culturally significant locations.

National plans therefore need to be usable at the community level.

World Meteorological Organization (WMO)

WMO is a major international organization for weather, climate, and water-related science. Under Early Warnings for All, WMO leads the pillar involving detection, observation, monitoring, analysis, and forecasting.

United Nations Office for Disaster Risk Reduction (UNDRR)

UNDRR supports implementation of the Sendai Framework and international efforts to understand and reduce disaster risk. Under Early Warnings for All, UNDRR leads work related to disaster-risk knowledge.

Schools and Teachers

Schools can provide disaster education, conduct evacuation drills, identify safe areas, and teach students how warnings should be interpreted.

Teachers are especially important because complicated scientific information must often be translated into simple actions students can remember during stressful situations.

Scientists and Universities

Scientists contribute hazard research, forecasting, monitoring technologies, risk maps, engineering knowledge, and climate data.

Universities can also train the next generation of meteorologists, seismologists, engineers, archaeologists, conservation specialists, and disaster-management professionals.

Local and Indigenous Communities

Local communities possess knowledge that international organizations or national governments may not have. Communities may understand local geography, historical hazard patterns, traditional construction techniques, environmental changes, and culturally important sites.

UNESCO's approach to intangible heritage emphasizes that communities themselves should play a central role in identifying and safeguarding their living heritage.

Museums and Heritage Professionals

Museum staff, archaeologists, architects, archivists, conservators, and heritage-site managers can identify vulnerable cultural assets and establish emergency procedures before disasters occur.

Telecommunications and Technology Providers

Mobile networks, radio, television, satellite communication, internet platforms, and emergency-alert systems may determine whether warnings actually reach people.

This makes communications infrastructure an essential link between scientific detection and human action.

Key UN Suggestions and Actions

1. Sendai Framework for Disaster Risk Reduction 2015–2030

The Sendai Framework organizes international disaster-risk reduction around four priorities:

Priority 1: Understanding disaster risk
Priority 2: Strengthening disaster-risk governance
Priority 3: Investing in disaster-risk reduction for resilience
Priority 4: Improving preparedness and "Build Back Better" approaches in recovery and reconstruction.

Delegates may use these principles when considering national and international policies.

2. Early Warnings for All

The Early Warnings for All initiative seeks universal protection from hazardous weather, water, and climate events through early-warning systems by the end of 2027. Its approach stresses that forecasting alone is insufficient; warning systems must connect scientific knowledge with communication and community preparedness.

Possible areas for committee discussion include expanding monitoring infrastructure, sharing scientific data, developing multilingual alerts, improving rural connectivity, and creating accessible warnings for people with disabilities.

3. Comprehensive School Safety

UNESCO supports the Comprehensive School Safety Framework 2022–2030, which promotes safer education systems and stronger disaster preparedness. UNESCO also encourages countries exposed to natural hazards to include disaster-risk education in curricula.

Delegates could discuss international standards for school evacuation drills, teacher training, educational materials, resilient school construction, and student-led preparedness programs.

4. UNESCO World Heritage Protection

The 1972 World Heritage Convention provides an international framework for identifying and protecting cultural and natural heritage of outstanding universal value.

Disaster preparedness for heritage can include risk assessments, digital documentation, evacuation plans for movable collections, fire protection, structural reinforcement, and training for heritage professionals.

5. Protection of Intangible Heritage

The 2003 Convention recognizes that heritage also includes traditions, knowledge, practices, and skills.

UNESCO’s emergency principles emphasize that communities should have a major role in determining how their intangible heritage is safeguarded and that protecting living heritage cannot be separated from protecting the people who practice it.

6. Heritage Emergency Fund

Established in 2015, UNESCO’s Heritage Emergency Fund allows rapid support for cultural protection during crises. It can assist preparedness and emergency responses affecting different forms of culture.

Delegates may consider whether similar financing should be expanded, regionalized, or connected more directly to disaster-prevention programs.

7. Community Preparedness

Technology cannot replace community knowledge.

UNESCO’s tsunami work illustrates this through its Tsunami Ready approach, which encourages hazard mapping, evacuation planning, public education, drills, and other preparedness measures. UNESCO reported in 2024 that communities in more than 30 countries had achieved Tsunami Ready recognition

Guiding Questions/Sources to Use

1. Which natural hazards pose the greatest threat to your country?

2. Does your country currently have effective early-warning systems?

3. Are rural, low-income, remote, or otherwise vulnerable communities equally covered by these systems?

4. How is disaster preparedness currently taught in your country's schools?

5. Should disaster-risk education be required in schools located in high-risk areas?

6. How can countries share scientific data without creating unrealistic financial or technological burdens?

7. How can lower-income countries receive equipment, training, and funding while maintaining control over their own disaster-response systems?

8. What communication methods should be used when cellular networks or electricity fail?

9. How should warnings reach children, tourists, people with disabilities, and speakers of minority languages?

10. Which cultural or natural heritage sites in your country are threatened by earthquakes, flooding, fires, storms, sea-level rise, or other hazards?

11. What responsibilities should UNESCO have before a disaster occurs rather than only after damage has happened?

12. How can governments protect cultural heritage while keeping human safety the first priority during an emergency?

13. What role should local and Indigenous knowledge play alongside modern scientific forecasting?

14. Should countries establish national emergency plans specifically for museums, archives, monuments, and World Heritage sites?

15. Who should pay for stronger global early-warning and disaster-education systems?

Citations

UNESCO — Disaster Risk Reduction for Culture and Designated Sites

Explains the relationship between cultural heritage, natural hazards, community resilience, and disaster-risk reduction.

UNESCO Disaster Risk Reduction for Culture and Designated Sites

UNESCO — Disaster Risk Reduction, Climate Change and Education

Provides background on UNESCO's work involving disaster education, school safety, and resilience.

UNESCO Disaster Risk Reduction and Education

UNESCO — Education and School Safety

Explains the importance of safe schools, resilient educational infrastructure, and disaster education.

UNESCO Education and School Safety

UNESCO — Learning on Culture in Emergencies

Provides information about UNESCO's programs for protecting cultural heritage during emergencies.

UNESCO Learning on Culture in Emergencies

UNESCO-IOC — Tsunami Programme

Explains UNESCO's role in coordinating international tsunami-warning and mitigation systems.

UNESCO-IOC Tsunami Programme

UNESCO — World Heritage Convention

Provides information on the 1972 Convention and international protection of cultural and natural heritage.

UNESCO World Heritage Convention

UNDRR — Sendai Framework for Disaster Risk Reduction 2015–2030

Provides the major UN framework for understanding, reducing, and managing disaster risk.

UNDRR Sendai Framework Overview

World Meteorological Organization — Early Warnings for All

Explains the international goal of expanding people-centered, multi-hazard early-warning systems and its four-pillar structure.

WMO Early Warnings for All

UNESCO — Heritage Emergency Fund

Explains UNESCO's rapid-response funding mechanism for protecting culture during emergencies.

UNESCO Heritage Emergency Fund

UNESCO — Convention for the Safeguarding of the Intangible Cultural Heritage

Provides the international framework for safeguarding traditions, knowledge, skills, and other forms of living heritage.

UNESCO 2003 Intangible Cultural Heritage Convention