CFMUNESCO 2018

COMMITTEE: UNESCO
TOPIC: The question of Natural Disasters and Risk Reduction, with a focus on School Safety and UNESCO Designated Sites
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Nature! […] We live in her midst and know her not. She is incessantly speaking to us, but betrays not her secret. We constantly act upon her, and yet have no power over her.

Johann Wolfgang von Goethe

INTRODUCTION

The relationship between man and nature has always been synonymous with the research for an increasingly precise and accurate interpretation of the world around us.
Earthquakes and avalanches are natural phenomena that leave us shocked and powerless. We cannot do anything else but thinking of how blind, devastating, inevitable nature's fury is, and how fragile we human beings are. Earthquakes, landslides, floods, tsunamis. The only thing that can be done is to assist, and we heroically do it. Is this enough?
As well as being dangerous to humans, these events shape our planet and affect where and how we live on it.

UNESCO plays a crucial role in constructing a global culture of resilient communities, helping countries to build their capacities in managing disaster and climate risk. This Organisation is dealing with the issue using educational programs, raising awareness in a culturally sensitive manner and focusing efforts on UNESCO Sites, World Heritage Sites and Geoparks. The Organisation provides a forum for governments to work together, encourages international cooperation and provides future possible strategies.

The report of the UN Secretary-General dated back to August 2006, on the implementation of the International Strategy for Disaster Reduction, states that in the period from June 2005 to May, 2006, there were 404 disasters with nationwide consequences in 115 countries, including the death of 93,000 people.
The international community has decided to put disaster prevention at the centre of its agenda, in order to reduce the dangers and mitigate negative effects, by working upstream and reducing downstream interventions on crises.
We do not have the capacity to mitigate the severity of natural hazards, we have the capacity to prevent a hazard from becoming a disaster. We are able to be prepared. The question is: how could we be prepared and reduce the impacts of disasters?

KEY TERMS

United Nations Office for Disaster Risk Reduction (UNISDR): this office plays an important role in this field. It is a UN body, established in 1999, in order to facilitate the implementation of the International Strategy for Disaster Reduction (ISDR), which promotes disaster reduction as an integral component of sustainable development.

Danger: the possibility of suffering harm or injury (Oxford Dictionary).

Disaster Risk: The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity (UNISDR, 2017)**.**

Disaster Management: the organization, planning and application of measures preparing for, responding to and recovering from disasters (UNISDR, 2017).

Resilience: the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions (UNISDR, 2017).

Hazard: any phenomenon, substance or situation, which potentially could cause disruption or damage to infrastructure, services and people. Hazards may be **natural, anthropogenic or socio-natural** in origin. **Natural** hazards are predominantly associated with natural events and phenomena. **Anthropogenic** hazards are caused completely or predominantly by human activities and choices. In addition, several hazards are **socio-natural**. These events are both natural and both human-induced, such as environmental degradation and climate change
(see https://www.desinventar.net/disasterclassification.html)

Exposure: it can be considered as the total value of elements-at-risk, expressed in terms of properties' value or human losses. Exposure refers to the presence (location) of people, services and infrastructure, livelihoods, social or cultural assets in places that could be subject to potential harm. This concept is important because if a hazard occurs in an area of no exposure, then there is no risk. Exposure is a necessary, but not sufficient, determinant of risk. In fact, being exposed and being vulnerable is not strictly linked. It is possible to be exposed but not vulnerable

Vulnerability: it is defined by the UNISDR as "*conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.*" Commonly it is the product of the insufficient capacity of an individual or community to prevent, cope with, resist and recover from the impact of a natural or human-induced hazard. Linked to vulnerability is the concept of resilience, by which a society shows the capacity of resisting from a disaster. Vulnerability is complex, and because of its different facets, there is no one single method for assessing it, since includes in itself different factors.
(see https://www.preventionweb.net/risk/vulnerability)

Capacity: the capacity refers to all the strengths, attributes and resources available within a community, organization or society to manage and reduce disaster risks and strengthen resilience (UNISDR, 2017).

EXPLANATION OF THE TOPIC

Historically humans have been dealing with disasters focussing on emergency response, but since the end of the 20th century it has been recognized the necessity to move from a culture of reaction to a culture of prevention.
The increasing of the world population in the past 40 years, bringing within greater urbanizations, has put an enormous amount of people at risk.

But what does "Disaster Risk Reduction" actually mean?

Disaster Risk Reduction (DRR) is an approach to deal with disasters, an approach which makes us able to identify, evaluate and reduce disaster risks. It is the development and application of policies, strategies and practices reducing vulnerabilities and disaster risks throughout society.

In this field, it is easy to get confused with the DRR, and the "Disaster Risk Management" (DRM). This one is often used in the same context, referring to a systematic approach to identifying, assessing and reducing risks. DRM is more focused on the practical implementation of initiatives to achieve DRR goals, but there is some overlap between the two terms and in practice they are often used quite loosely or flexibly, with very similar meanings. Usually, DRR is applied in the broader sense to cover policy, strategic, institutional and operational issues whilst DRM is more used to refer to practical, operational aspects. As for what concerns the purposes of the present report, we would like to remind that delegates are required to focus on Disaster Risk Reduction.

DRR includes activities like disaster preparedness and mitigation, early warning, reducing the exposure of people and their property, fighting against the consequences of poverty and inequality, providing education on disaster preparedness and risk reduction, and implementing sound land management.

We should start working on the basis that it is important to take into consideration not just what has happened, but what could happen. Most disasters that might happen, have not happened yet. Therefore, there are several aspects to disaster DRR:

- **Disaster Prevention**: it refers to all those activities and measures to ensure that the adverse impact of hazards and related disasters is avoided or reduced.

- **Risk Assessment**: it is the evaluation of risk that provides a sound basis for planning and allocation of financial and other resources. Risk assessments are produced in order to estimate possible economic, infrastructure and social impacts, arising from a particular hazard or multiple hazards. Three components are usually taken into consideration when assessing risk: hazard, exposure and vulnerability.

- **Disaster Mitigation**: it is the process made by measures taken to limit the adverse impact of hazards. Mitigation actions can be taken before, during or after a disaster. This process can be done by structural measures, including engineering techniques and hazard-resistant construction, and non-structural, such as training in disaster management, regulating land use and public education, improving public awareness. Let's make a banal but incisive example: in a building site, wearing a hard hat will not prevent a brick from falling on your head, but it might minimize the severity of the consequences.

- **Disaster Preparedness**: it consists in planning how to respond effectively to the impact of likely, imminent or current hazard events or conditions. Disaster Preparedness includes all those measures and precautions, usually supported by National Societies' volunteers, branches, regional and national capacities that are specifically taken before disasters. For example, an effective disaster preparedness plan could be organizing evacuation and stockpiling food supplies.

- **Early warning system**: it is the set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals and communities to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

FOCUS ON SCHOOL SAFETY AND UNESCO DESIGNATED SITES

Since the overall question of Natural Disasters and Risk Reduction is too wide for the aims of CFMUNESCO debate simulation, we have decided to focus the debate within our UNESCO committee on the two specific fields of School Safety and UNESCO Sites. Therefore, we invite delegates, while facing this topic, to be prepared on the general aspects listed before, and focus on the fields explained in the following paragraphs:

a) SCHOOL SAFETY

Natural disasters may happen anywhere and anytime, but the worst part is that the devastating disaster impact is most often caused by the vulnerable building structures and the improper emergency response efforts. This is even more terrible when linked to youth. For example, the 2008 Sichuan earthquake in China crushed 10.000 students to death in their classrooms, because of incorrect building structures. Children are the next generation for every Nation, and it is necessary to invest in education in order to build a better future.

To support countries in designing concrete action plans for safer schools, UNESCO has joined the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES). This Alliance aims to reach four primary goals:

1. To protect learners and educators from death, injury, and harm in schools,
2. To plan for educational continuity in the face of expected hazards,
3. To safeguard education sector investments,
4. To strengthen climate-smart disaster resilience through education.

GADRRRES promotes a comprehensive approach to DRR education through "The Comprehensive School Safety Framework" (CSSF), the most recent global agreement seeking to reduce disaster risk in the education sector. CSSF is based on three pillars, that are also the three components that define a school as a "safe school", according to GADRRRES:

- **Safe learning facilities**: this pillar focuses on disaster-resilient infrastructures, the construction of new schools, integrating structural safety and retrofitting existing vulnerable ones;
- **School disaster management**: this pillar is focused on involving children in improving their school preparedness and includes activities such as evacuation drills**;**
- **Risk reduction and resilience education**: this pillar aims at mobilizing Ministries of Education to include DRR as part of school curricula, and at strengthening teachers' education.

Moreover, GADRRRES members work closely with the UNISDR to promote coherent and coordinated action on school safety globally under the "Worldwide Initiative for Safe Schools" (WISS), a global partnership led by Governments for implementing school safety at the country level. As part of WISS, Governments from around the world engage as Safe School Leaders. What does it mean? These national leaders agree to advance safer school initiatives by applying a comprehensive approach to school safety in their own countries. Safe Schools Leaders are expected to mobilize Ministries of Education and their planning departments to integrate a comprehensive approach to school safety as part of education sector plans, share experiences and good practices in school safety implementation, allocate appropriate budget and mobilize resources for safer schools, assess the status of school safety.

Among other projects, UNESCO is also collaborating with the SPRINT-Lab researchers at the University of Udine (Italy) in a project named VISUS. "VISUS Methodology: A Quick Assessment

for Defining Safety Upgrading Strategies of School Facilities", thanks to the implementation of a mobile application, helps governments in assessing schools by considering five issues: site conditions, structural performance, local structural criticalities, non-structural components and functional aspects. As a result of these issues analysis, a graphical indicator summarises the evaluation, pointing out the main weaknesses and the needs of intervention.

VISUS was initially developed with the aim of evaluating the school facilities' safety in a seismic scenario. Currently, the methodology is evolving into a multi-hazard approach, which also considers risks induced by floods, fires and many other conditions.

The VISUS approach makes it possible to reach evaluations of already existing buildings, taking into consideration the specific features and local building traditions. This methodology aims to identify the necessary measures to take (also by reducing as much as possible the time and cost of assessments) in order to upgrade the safety of individual schools.

In 2013, UNESCO tested VISUS methodology in a pilot project in El Salvador, with the scientific coordination of Udine researchers. The collected data were sent in real-time at the UNESCO headquarters in Paris and processed by Sprint laboratory. In June 2014, the results of this first application were presented, and VISUS technology has been declared as UNESCO main methodology in DRR strategies.

After the official presentation of the methodology at the United Nations World Conference on Disaster Risk Reduction, held in Sendai (Japan) in 2015, UNESCO signed a partnership agreement with Udine's Sprint-Lab.

b) UNESCO DESIGNATES SITES

The protection of natural and cultural heritage in the event of disaster is of paramount importance. Climate changes are increasing the number of disasters and their devastating impacts. From 1988 to 2007, 76% of all disaster events were hydrological, meteorological or climatological in nature, and these hazards adversely impacted natural and cultural heritage.

Many studies demonstrate that investing in DRR through mitigation and preparedness makes much more economic sense than investing heavily in response and recovery. However, many World Heritage properties do not have any established policy, plan or process for managing or reducing risks associated with potential disasters. Moreover, existing national and local disaster preparedness and response mechanisms usually do not include heritage properties in their operations. Nevertheless, the importance of heritage as a source of employment should not be underestimated, because it represents a precious resource of a State, both for its capacity to attract investments and create employment (such as tourism) and as a source of renewable and sustainable natural resources.

UNESCO aims to assume responsibility for protecting our heritage by establishing the "World Heritage Sites" (WHS), which are outstanding examples of either cultural or natural heritage.

The World Heritage List was established during the 1972 "Convention Concerning the Protection of the World Cultural and Natural Heritage". The sites added to the list are determined by the World Heritage Committee (WHC) to have "outstanding universal value." As the organization is the leading guardian of the world heritage, UNESCO is closely involved in risk assessment and rescue operations to protect monuments and urban historic centres, sites, museums, and archives, in cooperation with other international conservation institutions.

UNESCO has thus implemented several projects to safeguard cultural sites and objects in the wake of disasters, including the 1966 flooding in Florence and Venice or, more recently, the Citadel of Bam (Iran), and the temples of Prambanan (Indonesia) severely damaged by earthquakes in 2003

and 2006 respectively. The organization recognizes that protecting patrimony plays an essential part in a culture of disaster prevention. Cultural and natural heritage and intangible artistic skills are important themselves, but they also contribute to sustainable development, which includes the mitigation of disasters.

UNESCO has thus published several manuals and guidelines on protecting cultural sites, including "The Strategy for Risk Reduction at World Heritage Properties", presented and approved by the WHC during its 31st session in 2007.

Delegates should remember that natural and cultural heritage needs to be well integrated into overall DRM policies and plans at national, regional and local levels. In order to achieve effective results, a crucial step could be raising awareness of community members on impending risks to lives and heritage and on the significant role that communities can play as volunteers in reducing risks. Moreover, there is the need of cooperation: cooperation between agencies, Governments and professional figures from heritage and DRR fields.

ACTIONS TAKEN

The following are the main milestones and the most relevant actions taken on this topic as a whole:

- ➤ **Hyogo Framework for Action 2005-2015 (HFA):** a set of guidelines, drafted in 2005, to reduce vulnerabilities to natural hazards. The Framework includes the following five commitments:
    1. Make disaster reduction a priority
    2. Know the risks and take action
    3. Build understanding and awareness
    4. Reduce risk
    5. Be prepared and ready to act

(see https://www.unisdr.org/files/1037_hyogoframeworkforactionenglish.pdf)

- ➤ **2030 Agenda for Sustainable Development**: a list made by 17 global goals set by the UN in 2015. It recognizes the need to "upgrade education facilities in order to provide a safe and effective learning environment" as part of the Sustainable Development Goals.

- ➤ **The Sendai Framework for Disaster Risk Reduction 2015-2030 (March 2015):** a document which is the successor instrument to the "Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters", drafted during the second World Conference on Disaster Reduction, immediately after the Indian Ocean Tsunami of December 2004. It calls for the strengthening of disaster resilient public and private investments, particularly for critical facilities such as schools and World Heritage Sites.
    (see https://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf)

- ➤ **The Strategy for Risk Reduction at World Heritage Properties:** the following are its priority actions:
    1. Strengthen support within relevant global, regional, national and local institutions for reducing risks at World Heritage properties
    2. Use knowledge, innovation and education to build a culture of disaster prevention at World Heritage properties
    3. Identify, assess and monitor disaster risks at World Heritage properties

4. Reduce underlying risk factors at World Heritage properties
5. Strengthen disaster preparedness at World Heritage properties for effective response at all levels

(see https://whc.unesco.org/archive/2007/whc07-31com-72e.pdf)

➢ **VISUS (UNIUD)**: mobile application, realized by the University of Udine
(see http://sprint.uniud.it/node/709)

CHAIR'S SUGGESTIONS

Dear Delegates,
as you will surely understand during your researches, the Disaster Risk Reduction is a really wide and extended field. You will not have any problem in finding documents and information on national and international policies, because it is a very discussed topic, and many are the paths taken.
In order to facilitate your researches, we would like to give you some suggestions:

− Do not forget what the topic title states: Disaster Risk Reduction. It means that you do not have to try and find solutions which could lead you in managing the disaster, but you have to focus on reducing the risks by proposing policies and strategies. Reducing risks means that you should provide means to reduce all those factors that could lead to a disaster. Do not focus, for example, just on a single case or UNESCO Site, but try and provide policies which could be suitable for every country in your committee.
− As said before, during your researches you will get in touch with different ways to face this issue: please note that we are expecting from you new, innovative, effective ideas. Do not simply copy what you are going to read and study on the web, this is not our goal. Try to think differently.
− As this topic is so vast, many of you may propose resolutions based most on the topic as a whole, many of you may focus mainly on educational systems and UNESCO Sites. Regardless of the nuance you may want to give to your resolution or diplomatic proposal, try to keep an eye on both these two aspects, reserving some clauses for both of them. You are going to debate in the UNESCO Committee, and school systems and World Heritage Properties are two aspects you must not underestimate.
− There is no State that can be defined as "safe". Every country, every land could be, now or one day, in danger. We suggest you, in order to propose new means to deal with the issue, to really identify yourself in your country: in this way, you will be able to provide the committee a peculiar way of thinking, thus different approaches. Facing the matter this way, you will have fun and enjoy this topic, which at the beginning could seem so complex, but trust me: it could be a great source of satisfaction.

One last warning! Pay attention: within CFMUNESCO ICRC Committee, your colleagues are going to debate on quite the same topic, but from a very different point of view. On the ICRC topic "The question of Climate Change, Natural Disasters and Displacement: a multi-track approach to filling the protection gaps", they are going to debate disaster consequences and post-disaster situations, mainly taking care of the displacement, and most of all from the Red Cross and Red Crescent Societies' points of view. It could be useful for you to read also the ICRC chair report, in order to have a more complete view of the overall issue itself, but always remind that the aspects debated by the ICRC delegates are not ours.
Good job!

SOURCES

Disaster Risk Reduction
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