



Disaster Risk Reduction and Risk Preparedness



At the end of the session, trainees:

- ✓ Will acknowledge the **key concepts** of **hazard, vulnerability, exposure, disaster, disaster risk, resilience, prevention, mitigation** and **preparedness for response**
- ✓ Will acknowledge the **role of heritage** in **strengthening resilience** and **actions** to be taken in the different phases of the disaster risk management cycle
- ✓ Will be aware of how to integrate **Disaster Reduction Management (DRM)** into the site management

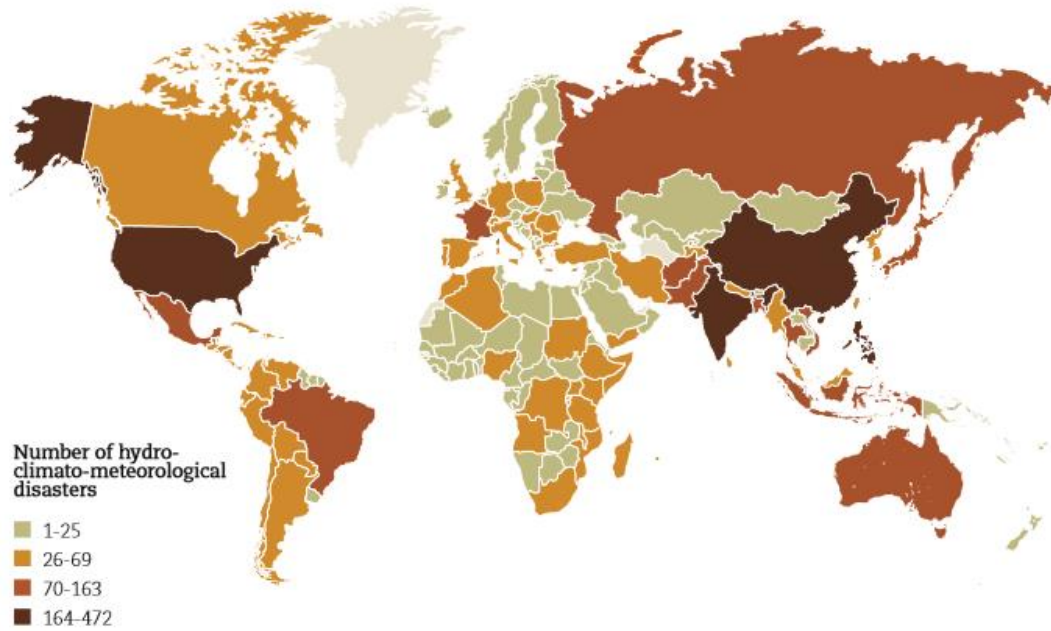


- I. Disaster statistics**
- II. Key definitions and concepts**
- III. Threats facing heritage**
- IV. Disaster Risk Management (DRM)**
 1. The Disaster Risk Management Cycle
 2. The erroneous disconnect between DRM and heritage sectors
 3. Misperceptions
 4. Linking DRM and heritage sectors
 5. Integrating DRM within site management plans and systems
- V. Role of heritage in strengthening resilience and fostering sustainability**
- VI. Attacks on Culture**
- VII. A growing recognition and accelerated action for the protection of Culture from disasters and conflicts**
 - Overview of UNESCO activities in DRM for Cultural and Heritage



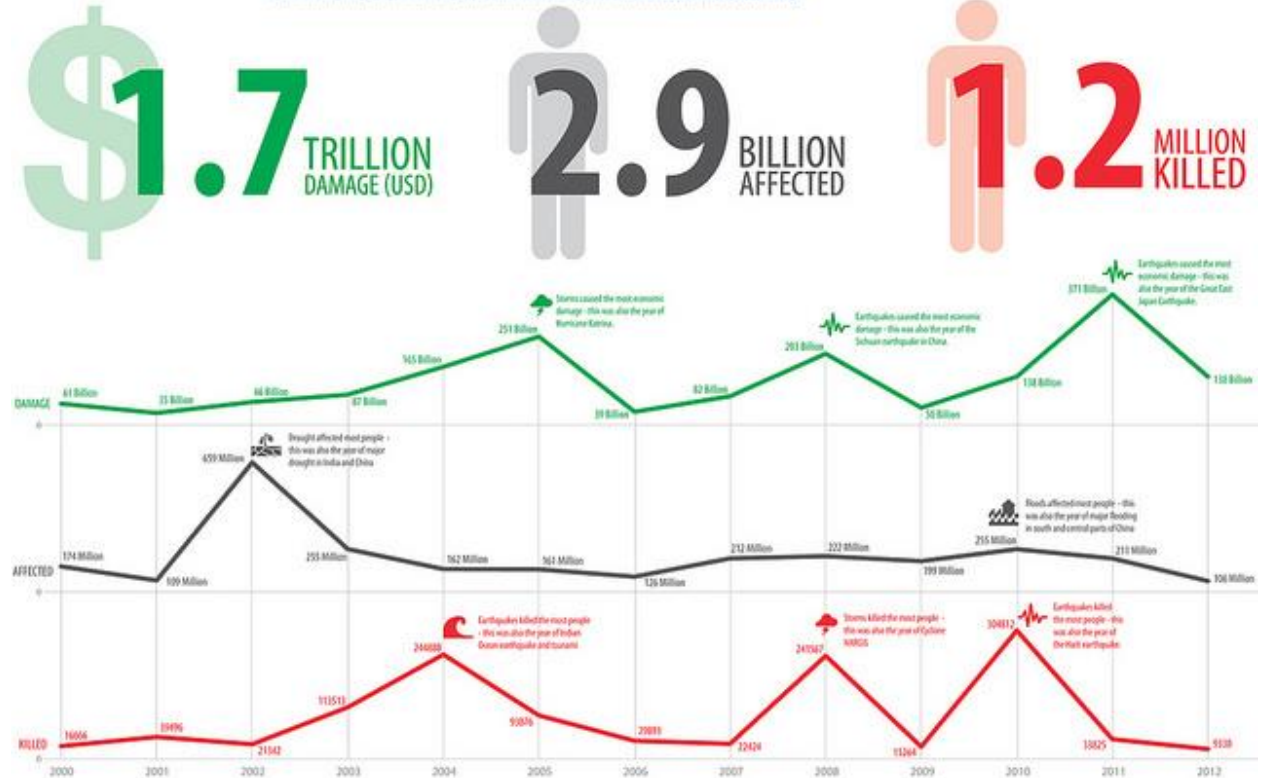
I. Disaster statistics

Figure 1
Number of weather-related disasters reported per country (1995-2015)

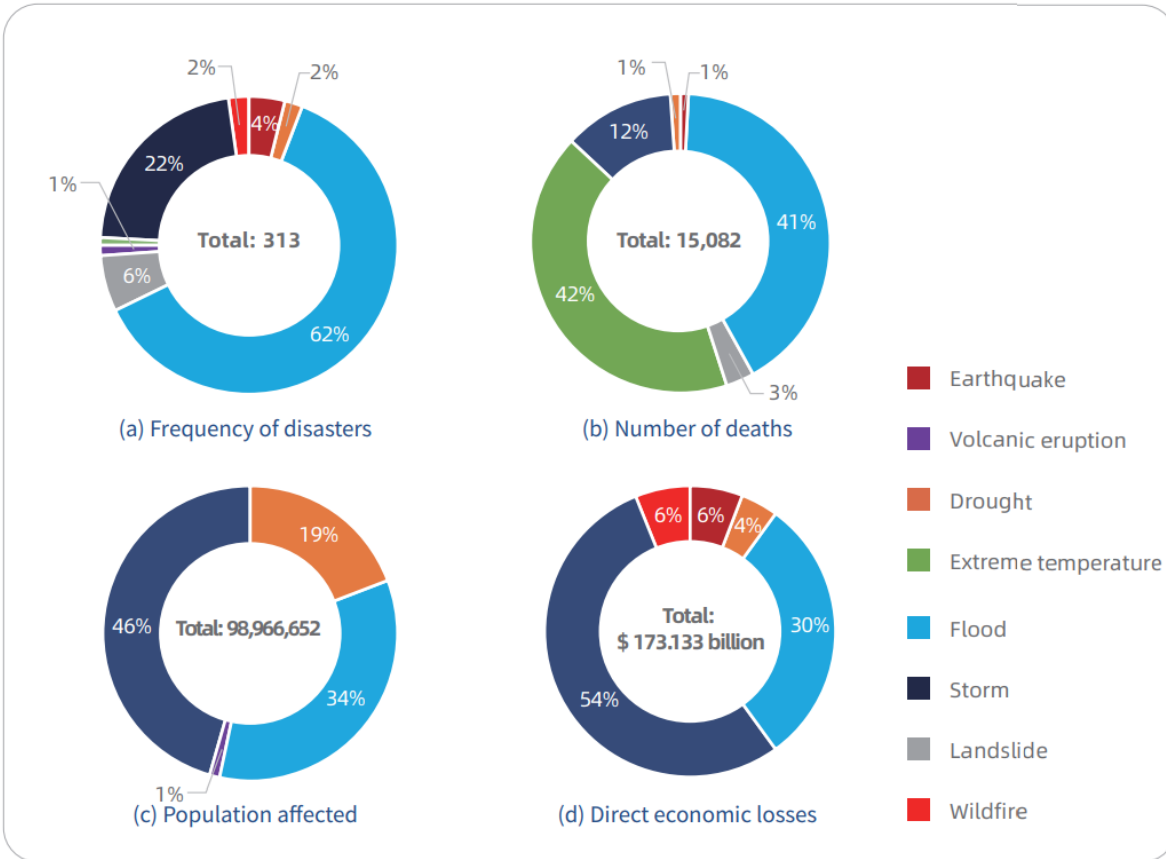


DISASTER IMPACTS / 2000-2012

*Disasters refers to droughts, earthquakes, tsunamis, storms, extreme temperatures, flood, insect infestations, mass mortality (disease & war), storms, volcanic, and wildfire. / Data source: EM-DAT: The OFDA/CHD International Disaster Database | Data version: 12 March 2013 - 14:07
©2014 Humanitarian Information Centre (http://reliefweb.org/map/world/Disaster) and country codes 2012. Find out more about UNISDR: <http://www.unisdr.org>



I. Disaster statistics



Trend in the number of natural disasters, 1900 to 2019



Source: EM-DAT
 Note: Includes Drought, Earthquakes, Volcanic activity, Mass movement (dry), Storms, Floods, Landslides, Wildfire and Extreme temperature.



Source: [Increase in Natural Disasters on a Global Scale by Ten Times](#), Vision of Humanity (2022)

Source: Breakdown of frequency and losses per disaster type worldwide in 2020, [2020 Global Natural Disaster Assessment Report \(2020\)](#), page 4



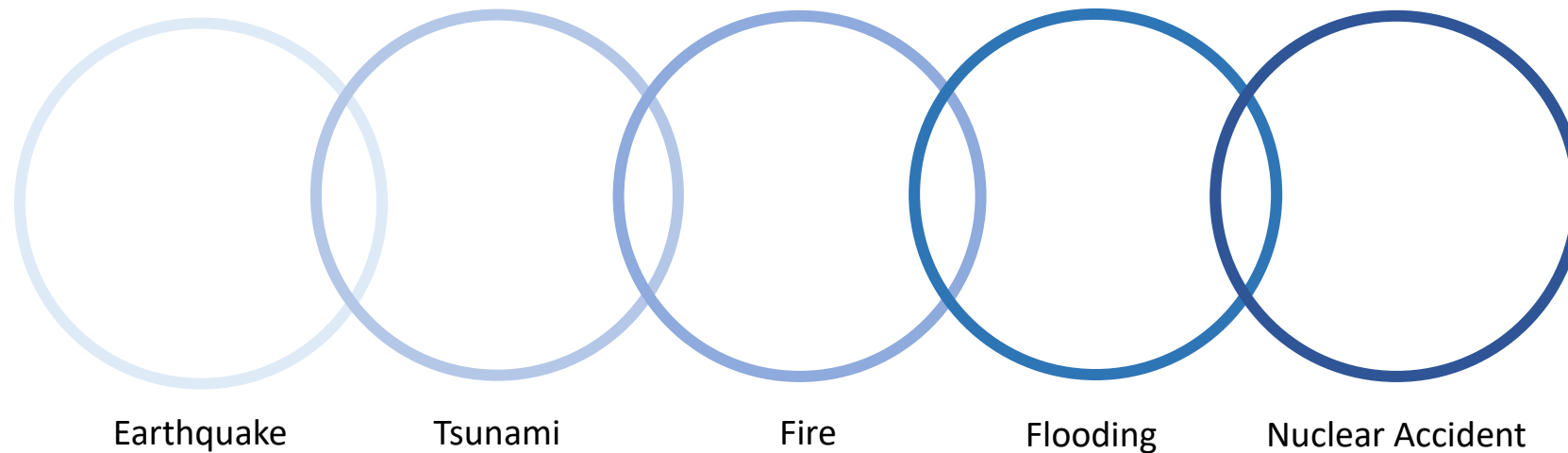
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II. Key definitions and concepts

- **Disaster**: A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts
- **Disaster Risk**: The potential loss of life, injury, or damaged assets which could occur to a system, society or a community in a specific period of time, as a function of hazard, exposure and vulnerability (Disaster Risk = H x E x V)
- **Disaster Risk Reduction (DRR)**: Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk
- **Vulnerability**: The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or impacts systems
- **Exposure**: The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas
- **Prevention**: Activities and measures to avoid existing and new disaster risks (e.g. land-use regulations that do not permit any settlement in high-risk zones)
- **Mitigation**: The lessening or minimizing of the adverse impacts of a hazardous event (e.g. improved public awareness; hazard-resistant infrastructure)
- **Preparedness response**: The knowledge and capacities to effectively respond to and recover from the impacts of likely, imminent or current disasters (e.g. evacuation, development of arrangements for coordination)

II. Key definitions and concepts

- **Hazard**: A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation. Hazards may be natural, anthropogenic or socionatural in origin
- **Multi-Hazard**: It could both be the selection of multiple major hazards that the country faces and the specific contexts where hazardous events may occur simultaneously, one after another or cumulatively over time, and taking into account the potential interrelated effects



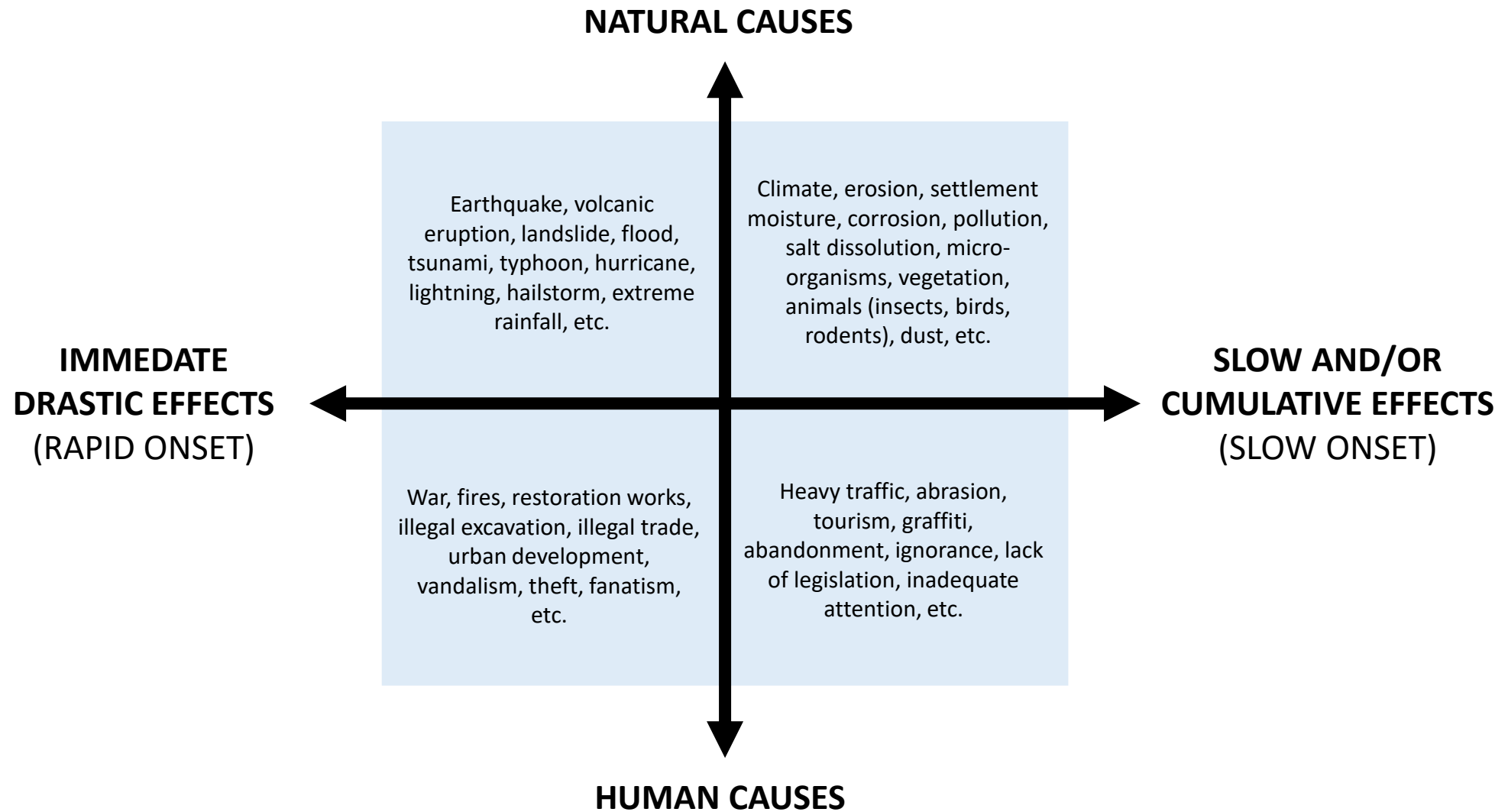
II. Key definitions and concepts

Risks and Disaster Risks: how are they different?

- In **disaster situations**, **different actors** come into play, which have their own plans and procedures
- **Disaster risks** are often **neglected in general management strategies**, so it is good to consider them specifically
- **Emergency response procedures**, in particular, are very specific and rarely implemented, but are essential
- Disaster Risk Management requires a **multidisciplinary approach**



III. Threats facing heritage

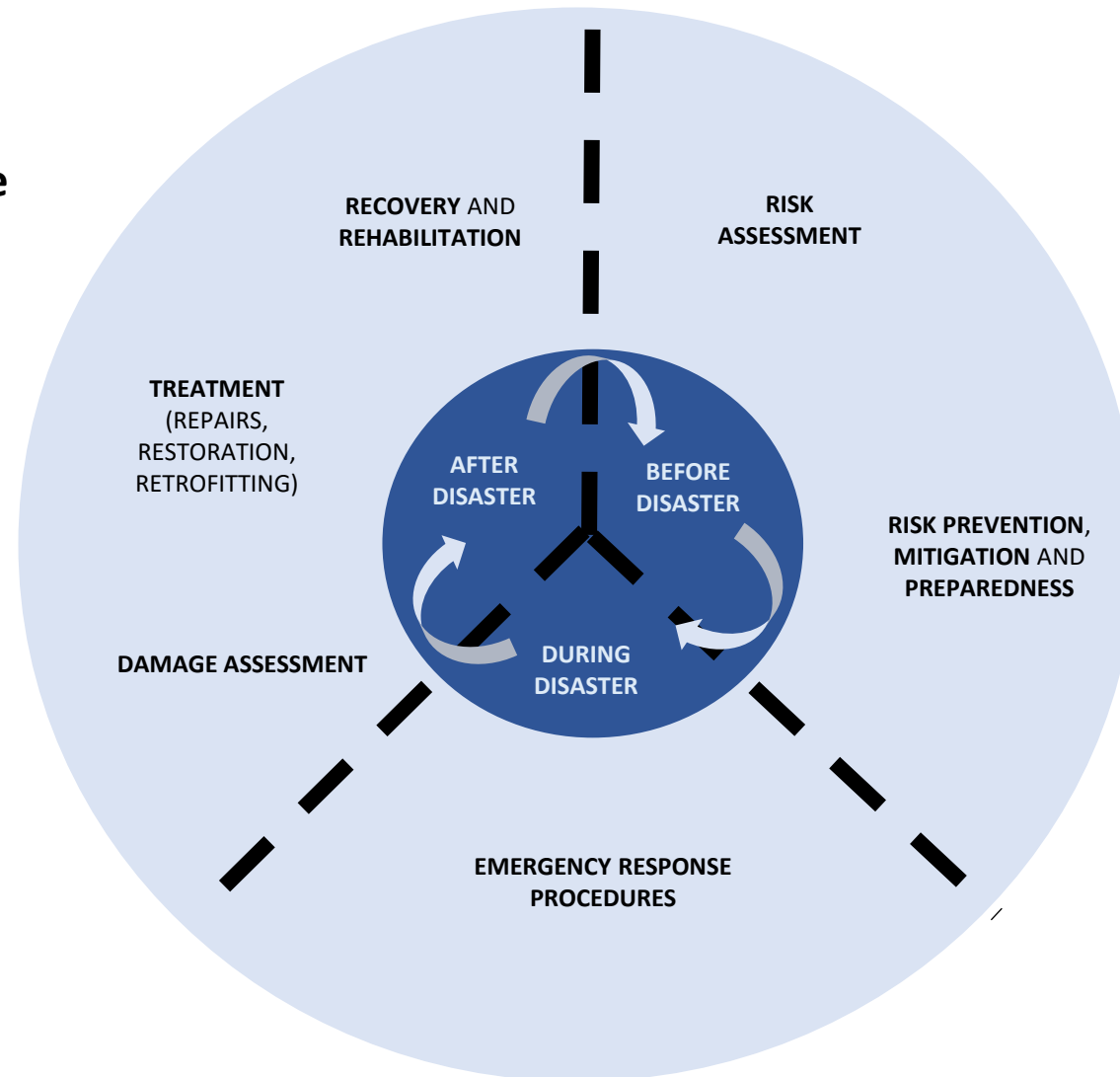


IV. Disaster Risk Management

The Disaster Risk Management cycle

The **three phases of Disaster Reduction** are:

- **Readiness** (before)
- **Response** (during)
- **Recovery** (after)



IV. Disaster Risk Management

The Disaster Risk Management cycle



Disaster risk management involves:

- Identifying **hazards**, required **expertise**, and **stakeholders**
- Understanding the **risks**, including by **developing complex scenarios of possible events** based on likely chain of **multiple causes and effects** (primary, secondary and tertiary)
- **Planning and acting for preparedness**, emergency response and recovery, within the larger **Disaster Risk Management framework**
- **Building awareness and capacity**, conducting regular drills (tests), and monitoring exercises

IV. Disaster Risk Management

The erroneous disconnect between Disaster Risk Management and heritage sectors



**Global field of
Disaster Risk Management**

Heritage

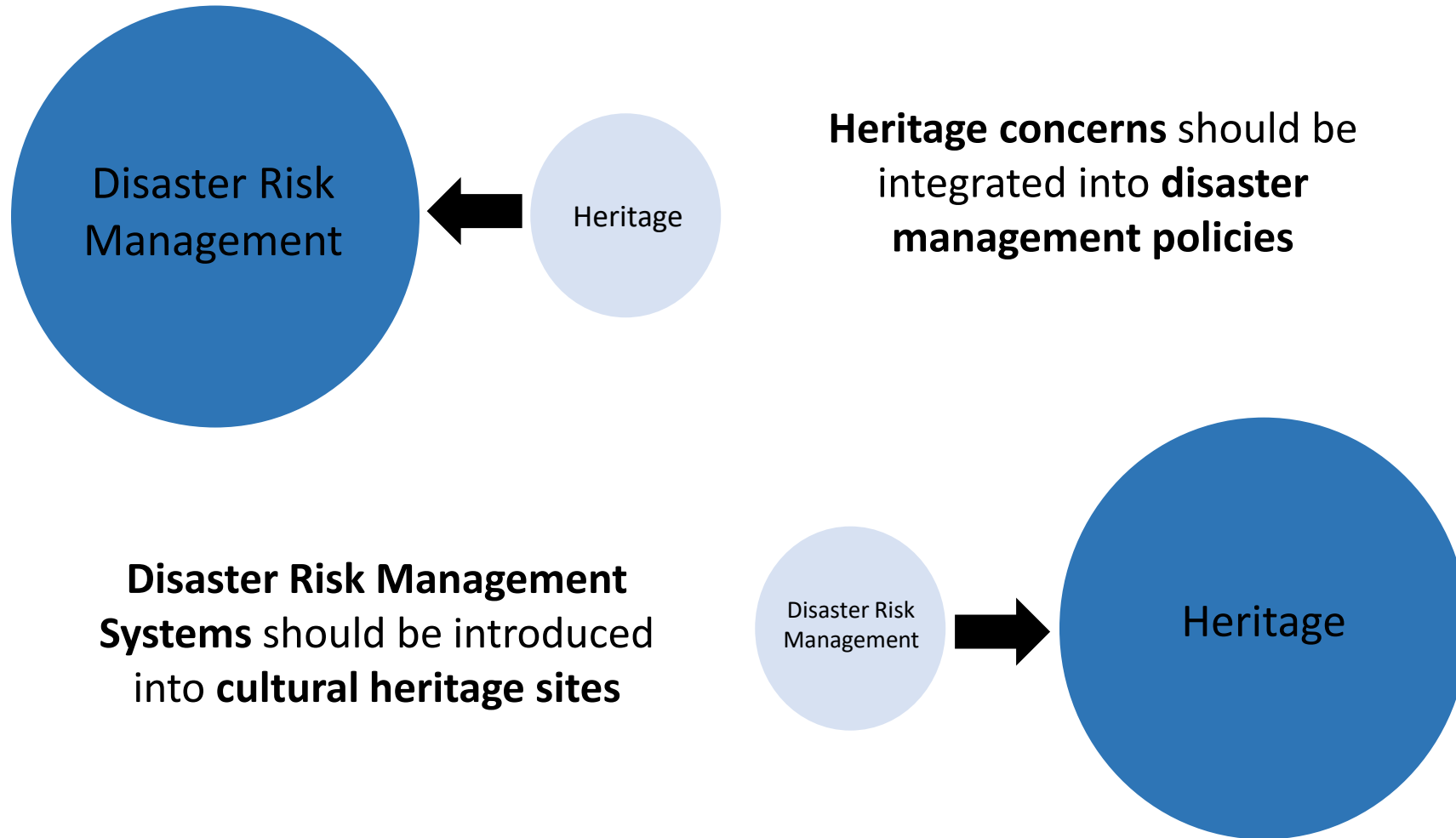
- The **global Disaster Risk Reduction sector** is **not sufficiently concerned with heritage**, with heritage losses not accounted for in global statistics/databases on disasters
- The **Heritage sector** does not know the **'language' of Disaster Risk Management**

Misperceptions:

- **Cultural attitude** (e.g. fanaticism, superstition, reluctance to raise issues with superiors, etc.) and priority given to pressing issues that can be 'seen'
- **Misunderstanding** and **overestimation** of nature and **costs of mitigation strategies**
- **Lack of awareness** of potential positive role of culture in Disaster Risk Management

IV. Disaster Risk Management

Linking Disaster Risk Management and heritage sectors



IV. Disaster Risk Management

Integrating Disaster Risk Management within sites management plans and systems



IV. Disaster Risk Management

Most world heritage properties are not prepared for disasters



The destruction in a fire of the a 600-year-old monument, the Sungnye Gate or the South Gate of Seoul (Republic Of Korea), in 2008



The remnants of the Cathedral of Our Lady of the Assumption in Port-au-Prince (Haiti), destroyed by the 2010 earthquake

IV. Disaster Risk Management

Disaster Effects, our dimensions:

- **Total or partial destruction** of physical assets existing in the affected area
- **Service delivery** and access to goods and services
- **Governance** and decision-making processes
- **New risks and vulnerabilities** as a result of the disaster

Culture Sector, five main component:

- **Built Heritage** and **cultural/natural** properties
- **Moveable** Properties and Collections
- **Intangible** Cultural Heritage
- **Repositories** of Heritage
- Cultural and Creative **Industries**

Main challenge: obtaining reliable baseline data



Disaster Effects on Culture

- **Total or partial destruction of monuments, sites, cultural repositories, etc.**
- **Lack of access** to Cultural Heritage, disruption of production of cultural goods and services, inability to practice one's culture
- **Effects on ability of Agencies** in charge of culture to implement, coordinate response, their human resources, information, equipment, etc.
- **New risks** due to fragility of structures, possible looting, or from insensitive reconstruction plans, etc.

Value of Disaster Effects on Culture

- **Damage:**
 - Cost of **reconstruction of physical assets**, including equipment and infrastructure (or alternative solutions)
- **Losses:**
 - **Diminished revenues** and/or **additional costs** from temporary closure of cultural assets/cancellation of cultural events;
 - Costs for **emergency measures** to prevent further damage
 - Costs for **disruption** of production of goods
 - Costs to ensure **continuity** of cultural services
 - Costs for reducing **new risks**, etc.

IV. Disaster Risk Management

Recovery strategy for culture: typical needs

- **First aid measures**
- **Restoration/reconstruction** of assets and infrastructure
- Restore **essential cultural services** and **intangible heritage practices**
- Resume **production of cultural goods**
- Restore **basic revenues** for **affected people employed in culture sector**
- Delivering **training**
- Restore **administrative functionality of sector**
- Strengthen **Disaster Risk Reduction of affected cultural resources** while reconstructing
- **Build awareness**
- Etc.



IV. Disaster Risk Management

Periodic Reporting questionnaire: Section I, Q5.14.1

5.14. Use of policies and strategies agreed by the World Heritage Committee or the World Heritage General Assembly to set national policies or strategies for the protection of the cultural and natural heritage

Question 5.14.1

✓ Not completed

[Guidance](#)

[Reset](#)

Is your State Party using policies and strategies agreed by the World Heritage Committee or the World Heritage General Assembly to set national policies or strategies for the protection of the cultural and natural heritage?

	UNESCO World Heritage Policy or Strategy	No	Yes
5.14.1.1	Policy Document on the Impacts of Climate Change on World Heritage Properties	<input type="radio"/>	<input type="radio"/>
5.14.1.2	Strategy for Reducing Risks from Disasters at World Heritage Properties	<input type="radio"/>	<input type="radio"/>
5.14.1.3	World Heritage Capacity Building Strategy	<input type="radio"/>	<input type="radio"/>
5.14.1.4	World Heritage Sustainable Development Policy	<input type="radio"/>	<input type="radio"/>



IV. Disaster Risk Management

Periodic Reporting questionnaire: Section II, Q5.3.9

Question 5.3.9

✓ Not completed

Guidance

Reset ↻

Has any use been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property ?

- | | | |
|---------|--|-----------------------|
| 5.3.9.1 | No use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties | <input type="radio"/> |
| 5.3.9.2 | Some use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties | <input type="radio"/> |
| 5.3.9.3 | The risk management policy is fully based on the agreed Strategy for Reducing Risks from Disasters at World Heritage Properties | <input type="radio"/> |



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V. The role of heritage in strengthening resilience and fostering sustainability



- ***Resilience***: The ability of a system, community or society exposed to hazards to **resist, absorb, accommodate, adapt to, transform** 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 through risk management
- Cultural heritage is **not merely a passive resource** liable to be affected and damaged by disasters
- It has a **proactive role** to play in **strengthening resilience and fostering sustainability**

V. The role of heritage in strengthening resilience and fostering sustainability

Culture as a security imperative and a humanitarian issue:

- Growing recognition of the **role of culture** for resilience in disasters
- Growing number of **intra-State conflicts** among groups defined by **ethnicity or religion**
- Link between **conflicts and disasters**
- Non-integration of culture in **humanitarian/security strategies**
- Limitations of **UNESCO's traditional approach**

The protection of culture and the promotion of cultural pluralism also contributes to:

- Protecting **human rights**
- Preventing conflicts and **building peace**
- Upholding international **humanitarian law and security**

V. The role of heritage in strengthening resilience and fostering sustainability

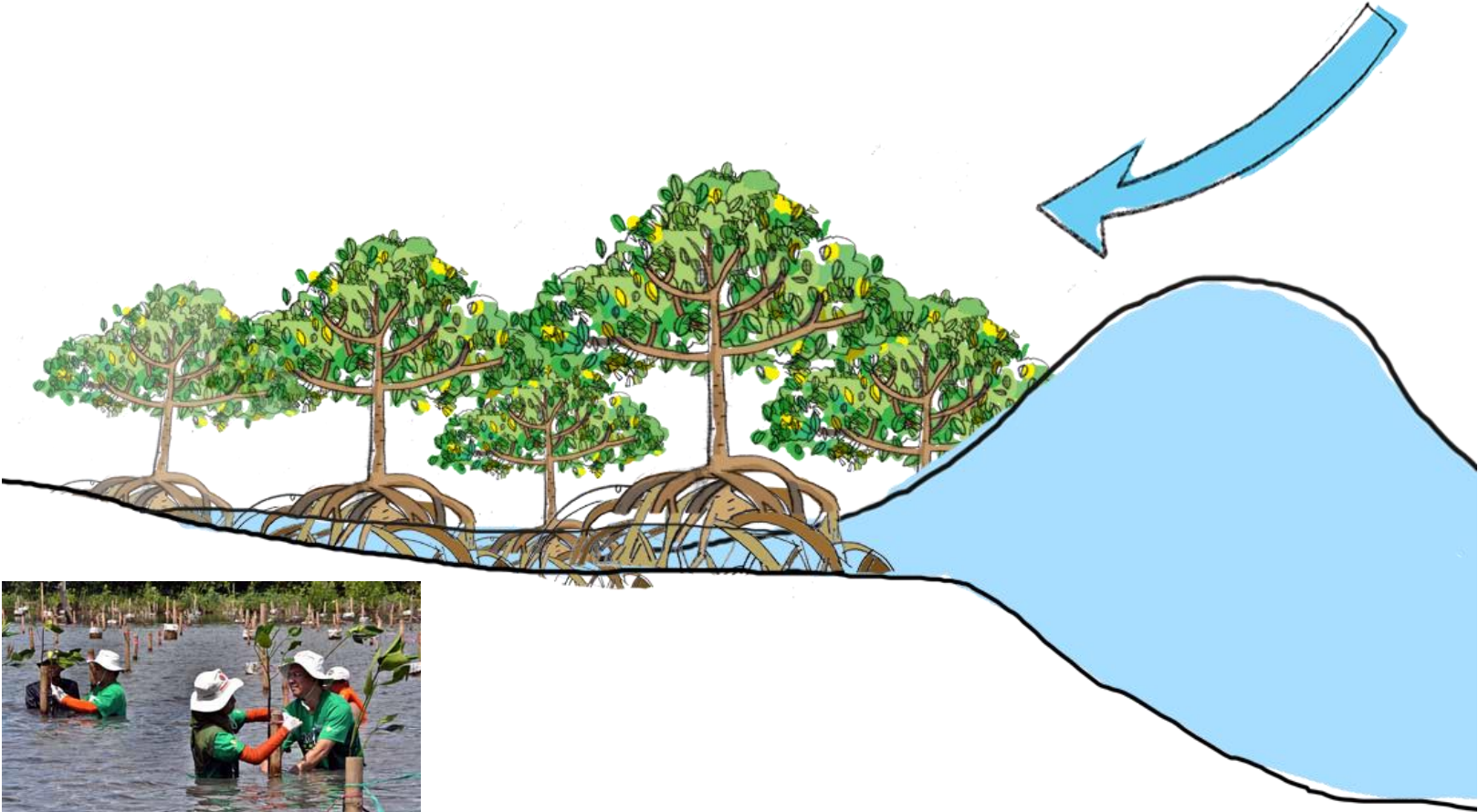


Heritage reflects **cultural and natural diversity**



Heritage is **connected to and owned by the people**

V. The role of heritage in strengthening resilience and fostering sustainability



It mitigates risks through **goods** and **services**

Florida's Mangroves Ecosystem

V. The role of heritage in strengthening resilience and fostering sustainability



It is a resource for **sustainable socio-economic development**



It may be a powerful tool to **communicate risks**

V. The role of heritage in strengthening resilience and fostering sustainability

Priority 1: understanding disaster risk to culture

- Identify, assess and monitor risks to culture from disasters and conflicts, through a **broad participatory process**
- Consolidate **guidance** and promote **new research** on the actual and potential contribution of culture and heritage in building resilience

Priority 2: strengthening disaster risk governance of the culture sector to manage disaster risk

- Strengthen **inter-institutional coordination** and communication among Cultural Heritage authorities and emergency response and Disaster Risk Management actors by establishing permanent consultation mechanisms and protocols for emergency preparedness and response
- Create dedicated cultural heritage units within CP agencies (**interdisciplinary teams**)
- Strengthen the **policy/legal frameworks for Disaster Risk Management/Cultural Heritage** by emphasizing the necessity to include the Cultural Heritage sector in all segments of Disaster Risk Management and at all emergency management levels

V. The role of heritage in strengthening resilience and fostering sustainability

Priority 3: investing in Disaster Risk Reduction for culture

- Develop **Disaster Risk Management systems** through inclusive and consultative processes ensuring the participation of all main actors, and integrate them within the broader Cultural Heritage site management plans
- Participate in **training programmes on Disaster Risk Management** for Cultural Heritage to build capacity of professionals e.g. First Aid for Cultural Heritage
- Promote **awareness-raising** for all stakeholders dealing with Disaster Risk Management at various levels, and for the general population

Priority 4: enhancing disaster preparedness for effective response and to “build back better” in the recovery, rehabilitation and reconstruction of culture

- Conduct regular **reviews of Disaster Risk Management plans** at various levels, and regular drills involving concerned communities
- Ensuring the **integration of Culture in Post-Disaster Needs Assessments (PDNA)**, and **Recovery and Peace-Building Assessments (RPBA)**, if one takes place in your country
- Undertake research to **reduce vulnerability** of Cultural Heritage in recovery processes

V. The role of heritage in strengthening resilience and fostering sustainability

What is the Joint Declaration on Post-Crisis Assessments and Recovery Planning (PDNA)?

- A **joint protocol for action** established in 2008 by the UN, the European Union and the World Bank
- A framework to **help coordinate recovery efforts** across different sectors and with a **risk reduction focus**
- Methodology that coordinates consistent and predictable **assistance to Governments** in assessing disaster's socio-economic consequences

Joint Declaration on Post-Crisis Assessments and Recovery Planning 25 September, 2008

The European Commission, the United Nations Development Group and the World Bank seek to mobilize our institutions and resources to harmonize and coordinate post-crisis response frameworks to enhance country resilience to crises, by answering recovery needs of vulnerable populations and strengthening the capacity of national institutions for effective prevention, response and recovery. We believe a common platform for partnership and action is central to the delivery of an effective and sustainable international response after disaster- and conflict-related crises. We are engaged in significant work to reform the processes used by national and international partners to assess, plan, and mobilize support for recovery to countries and populations affected by natural disasters or violent conflicts.

A Common Platform for Action

We recognize that early strategic dialogue and engagement is an essential foundation that can be built upon as crisis management and recovery efforts move from planning to implementation, and we decide to:

- Communicate strategically at both headquarters and field level as we monitor situations of fragility and conflict, and imminent or actual natural disasters, and identify opportunities for joint initiatives where our combined efforts may offer advantages;
- Participate in the relevant in-country planning processes and support the development and use of shared benchmarks/ results frameworks and joint processes for monitoring and review;
- Support the development and use of the common methodologies for post-conflict needs assessments, and a common approach to post-disaster needs assessments and recovery planning;
- Invest in development of toolkits and staff training to deepen our collective and institutional capacity for these processes; and
- Monitor progress in the implementation of the common platform through a senior level meeting that would take place once a year.

		
The European Commission	The United Nations Development Group	The World Bank

VI. Attacks on Culture



This video is available on the UNESCO website [here](#)

unesco "Building peace in the minds of men and women"

IN BRIEF WHAT WE DO WHERE WE WORK PARTNERS JOIN US RESOURCES

Home > Disaster Risk Reduction

Disaster Risk Reduction



Climate change, urban pressure and lack of disaster preparedness, are increasingly transforming natural hazards, such as earthquakes, volcanic eruptions or tsunamis into disastrous events causing life and economic losses. The risk of disasters caused by natural hazards is rising.

Disaster Risk Reduction (DRR) is increasing in the agenda of the Organisations of the UN System. While the Sendai Framework for Disaster Risk Reduction 2015-2030 is the roadmap for Disaster Risk Reduction, other global agendas including the Sustainable Development Goals, the Paris Climate Agreement, the New Urban Agenda and the Biodiversity Agenda have targets that cannot be attained without considering Disaster Risk Reduction. There are clear links between those international instruments.

Why is Disaster Risk Reduction important ?



Natural hazards are naturally-occurring physical phenomena caused by either the rapid or slow onset of events having atmospheric, geologic and hydrologic origins on solar, global, regional, national or

- Home
- Post Disaster Response
- Risk Governance and Social Resilience
- The Built Environment
- Education School Safety
- Early Warning Systems
- Environment & Ecosystem Based Disaster Risk

Destruction of the Ancient City of Aleppo



21 November 2010



22 October 2014

VI. Attacks on Culture



Al-Askari shrine, Samarra (Iraq), 2006, 2007



Radical Religious Ideology: Destruction of 14 Mausoleums Timbuktu (Mali), 2012

VI. Attacks on Culture



Radical Religious Ideology: Nimrud & Mosul Museum, (Iraq), 2015

VI. Attacks on Culture

Culture and religion-based persecution:



Christian homes marked with the letter « noun »



Yezidi refugees, Iraq

© Getty Images

Looting and illicit trafficking

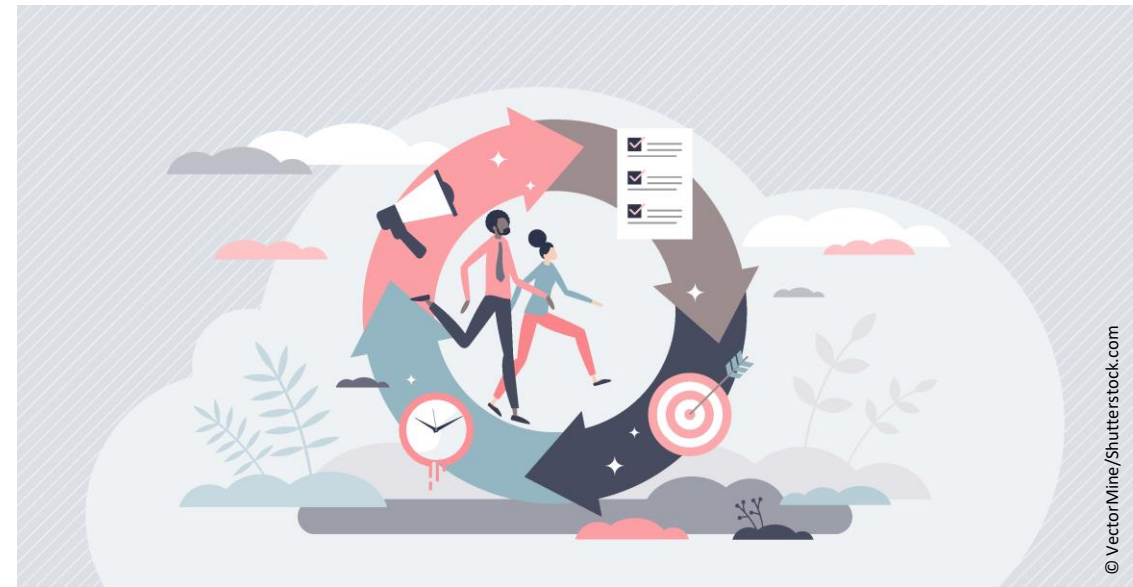


VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

New policies:

- UNESCO's Strategy for Reducing Risks from Disasters at World Heritage Properties (**2007**)
- Strategy for the Reinforcement of UNESCO's Actions for the Protection of Culture and the Promotion of Cultural Pluralism in the Event of Armed Conflict (**November 2015**)
- United Nations Security Council Resolution 2347 on the protection of cultural heritage (**March 2017**)
- Addendum to the Strategy on Natural Disasters (**November 2017**)

*** Key feature of the Addendum on Natural Disasters *
aligned with the four priorities for action of the [Sendai Framework for Disaster Risk Reduction 2015-2030](#)**



VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts



[Link to the *Sendai Framework for Disaster Risk Reduction: 2015-2030*](#)

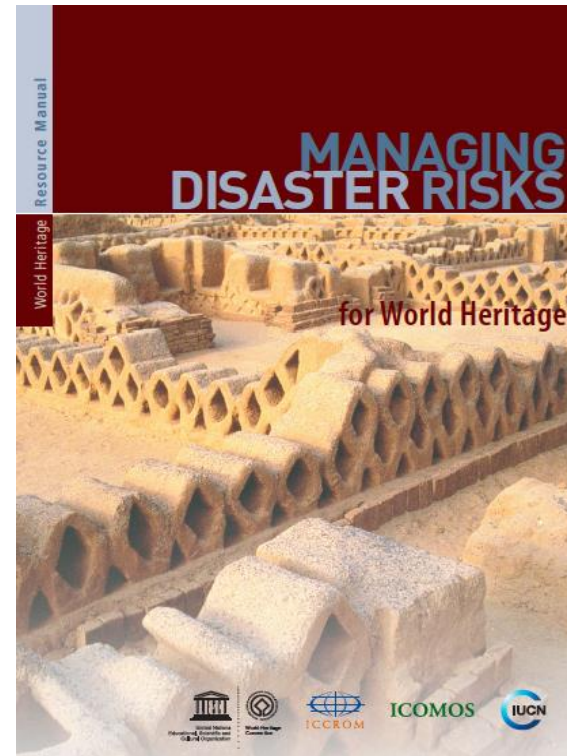
Sendai Framework for Disaster Risk Reduction: 2015-2030

- Endorsed by the United Nations General Assembly following the Third United Nations **World Conference on Disaster Risk Reduction (WCDRR)** in March 2015
- Aims for the “the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, **cultural** and environmental assets of persons, businesses, communities and countries.”
- The Framework calls for the following priorities for action that are specifically **linked to cultural heritage**:
 - “Systematically evaluate, record, share and publicly account for disaster losses and understand the... **cultural heritage impacts**, as appropriate, in the context of event-specific hazard-exposure and vulnerability information.”
 - “Protect or support the protection of **cultural and collecting institutions and other sites of historical, cultural heritage and religious interest.**”

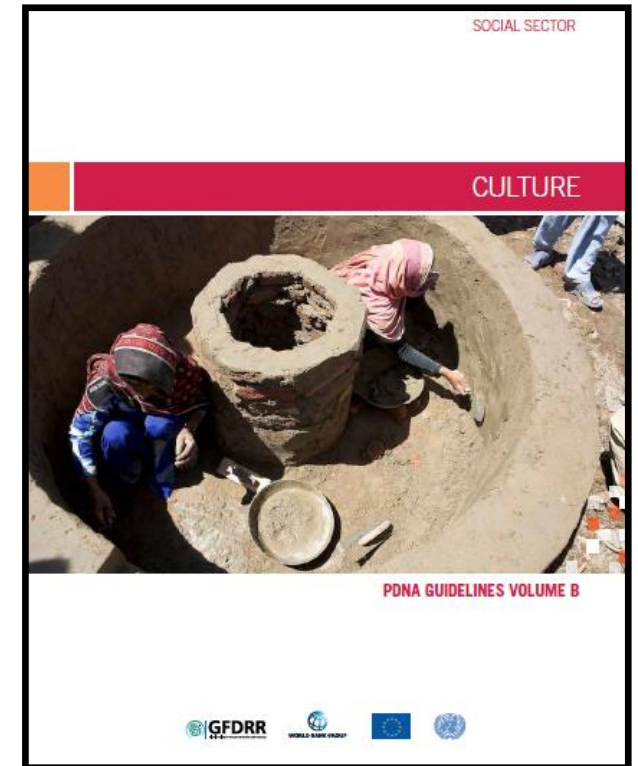
VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

Overview of UNESCO's activities in Disaster Risk Management for cultural heritage:

- Providing **technical backstopping** (development of Disaster Risk Management plans; conducting PDNAs for culture)
- Providing financial assistance for emergency preparedness and response activities through the **Heritage Emergency Fund**
- Developing **capacity-building tools** and **training programmes**
- Advocacy and support in **policy formulation**



Managing Disaster Risks for World Heritage, UNESCO (2010)



VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

UNESCO's emergency preparedness and response

Unit:

- Established in 2014
- Purpose: to strengthen UNESCO's ability to assist Member States in **preventing, mitigating and recovering from emergencies affecting their cultural sector**, while drawing on the power of culture to support **resilience, cohesion and stability**
- Covers all emergencies (**disasters and conflicts**)

New partnerships and tools:

- **Heritage Emergency Fund** established in 2015
- **Action Plan** adopted in 2017
- Culture in **Post-Disaster Needs Assessments (PDNA), Recovery and Peace-Building Assessments (RPBA)**, etc.
- **Rapid response mechanism**, including the establishment of a **roster of experts**
- **New international funding mechanisms (CPF, ALIPH etc.)**
- **Cooperation agreements with ICRC, ICC, ICCROM, UNOSAT, the Italian Task Force, DAI, Hermitage, etc.**

VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

Advocacy and facilitation



The UNESCO Director-General meeting the President of Iraq to discuss the reconstruction of Mosul (Iraq) in 2019:

- Statements by Director-General
- Diplomatic initiatives
- High-level meetings and thematic conferences
- Implementation of strong projects, such as '[Revive the spirit of Mosul](#)'

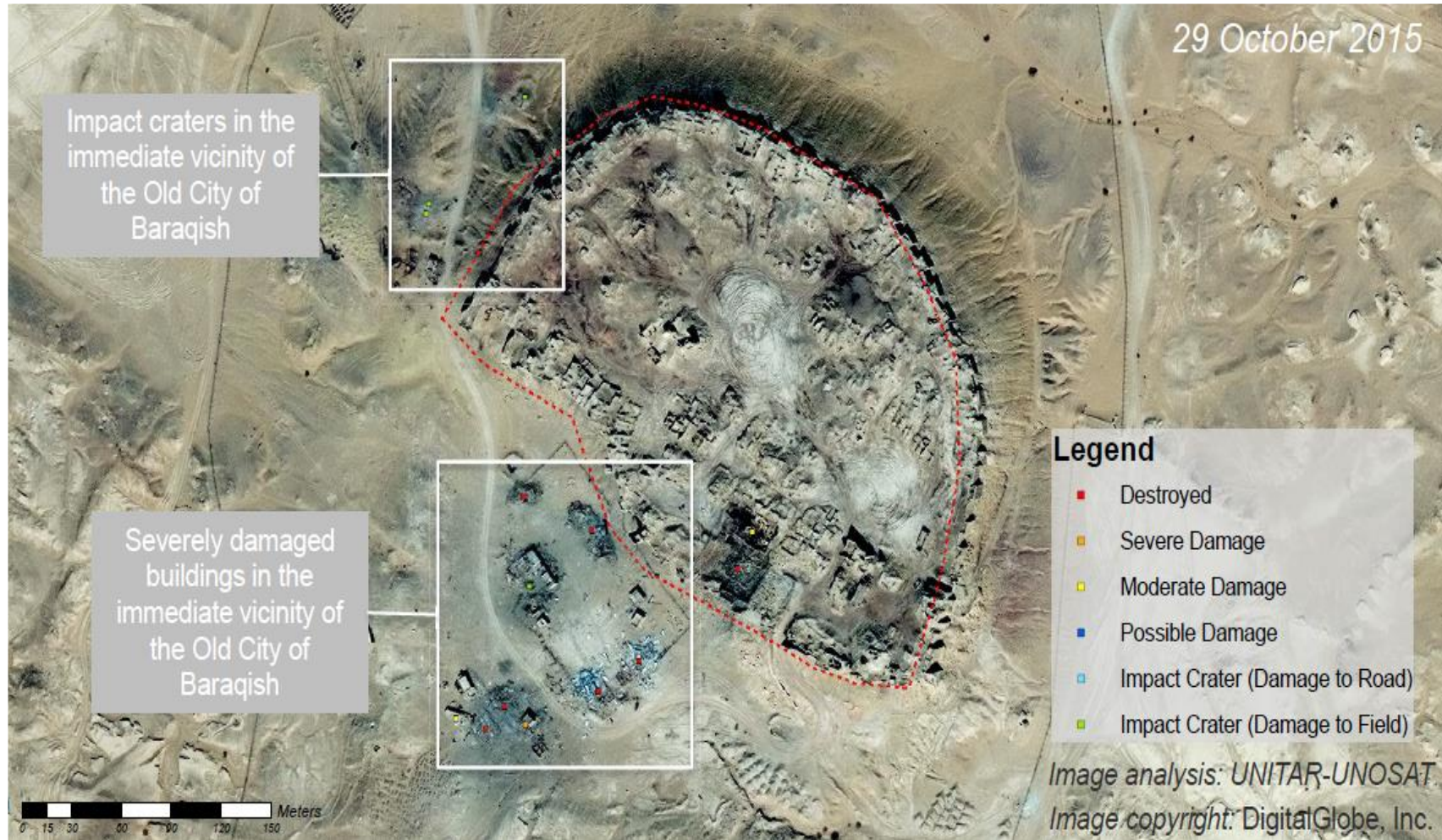
Technical assistance and capacity-building



- Support to emergency stabilisation
- Rehabilitation
- Technical coordination meetings
- First aid training
- Training of military and peacekeepers

VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

Assessments, data collection and monitoring



VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

Fight against illicit trafficking



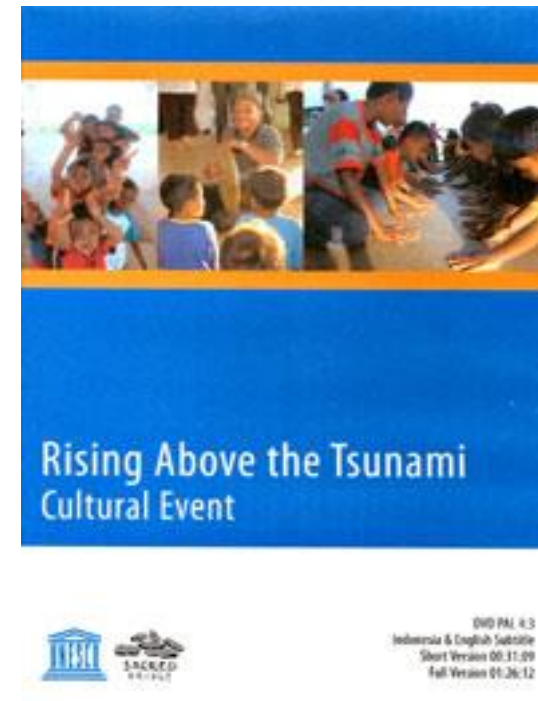
- Coordination with **INTERPOL**, **WCO**, **UNODC**, **UNIDROIT**, **ICOM** and heritage experts to track and identify illicitly traded cultural artefacts
- Advocacy with **museums**, the **art market**, the **public** in general on need for due diligence
- **Mediation** on return of properties illicitly exported

VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

Education and communication



[World Heritage explained](#) - animated short video about the UNESCO World Heritage Convention



VII. A growing recognition and accelerated action for the protection of culture from disasters and conflicts

What are we ultimately wanting to achieve?

- Renewed focus on **disaster preparedness**, instead of only focusing on disaster response and recovery
- Better communication and **integrated processes and mechanisms** across concerned sectors (cultural heritage; Disaster Risk Management; development; humanitarian; and security)
- New and innovative knowledge, tools, approaches and best practices that enable a **balance** between the protection of the property/site's **heritage attributes** (and their associated values) on the one hand, with the **safety** of the local population/visitors, on the other
- Recognition of the potential **role of culture and heritage** to contribute to **Disaster Risk Reduction**, and its harnessing in Disaster Risk Reduction strategies and plans





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World Heritage Convention



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