

Fire/Disaster Management: Prevention Over Recovery In Protecting Cultural Heritage

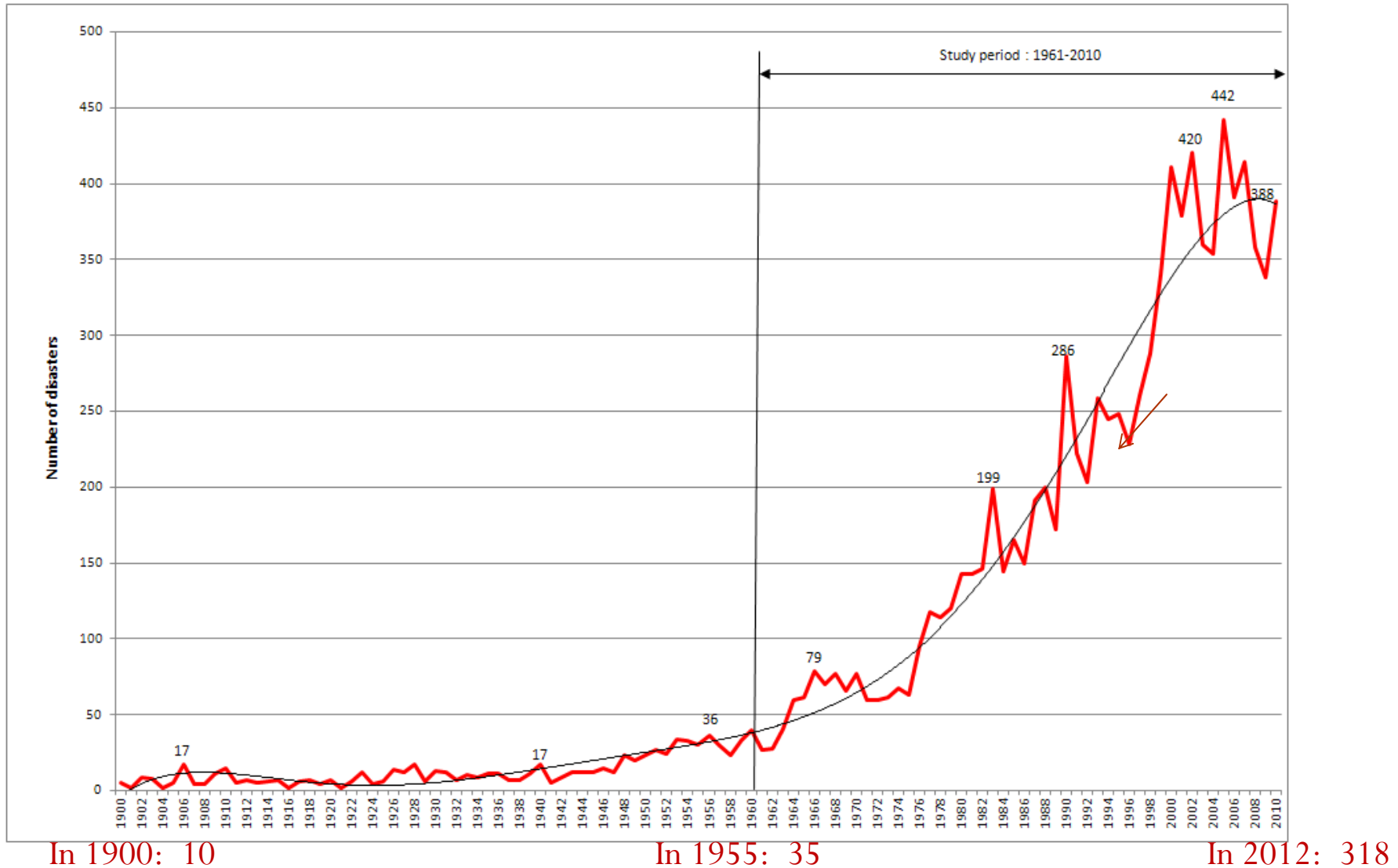
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The Impact of Disasters



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Occurrence of natural disasters



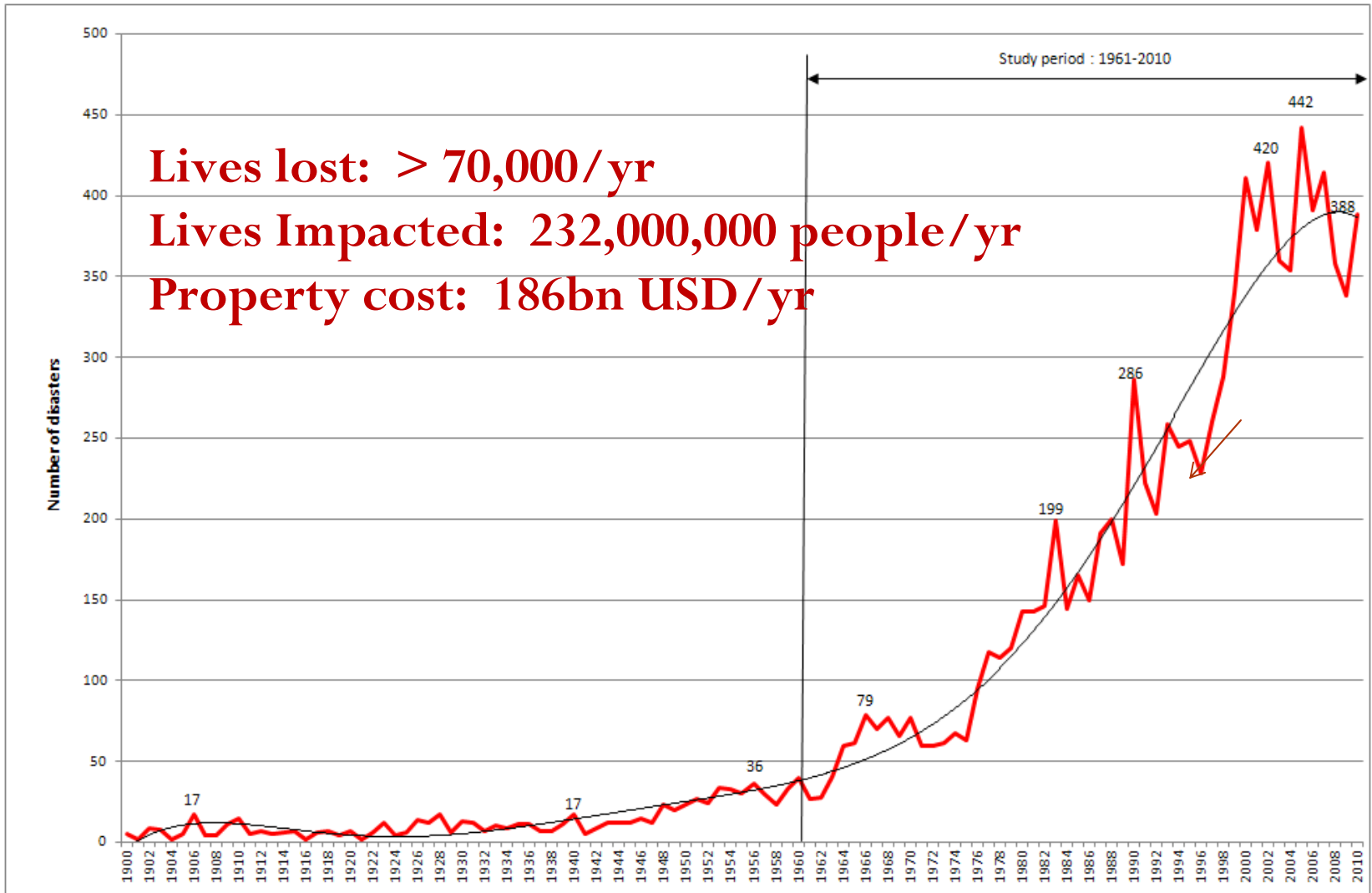
In 1900: 10

In 1955: 35

In 2012: 318

The Impact of Disasters

Occurrence of natural disasters



Lives lost: > 70,000/yr

Lives Impacted: 232,000,000 people/yr

Property cost: 186bn USD/yr

In 1900: 10

In 1955: 35

In 2012: 318

The Impact of Disasters

Losses to Cultural Heritage

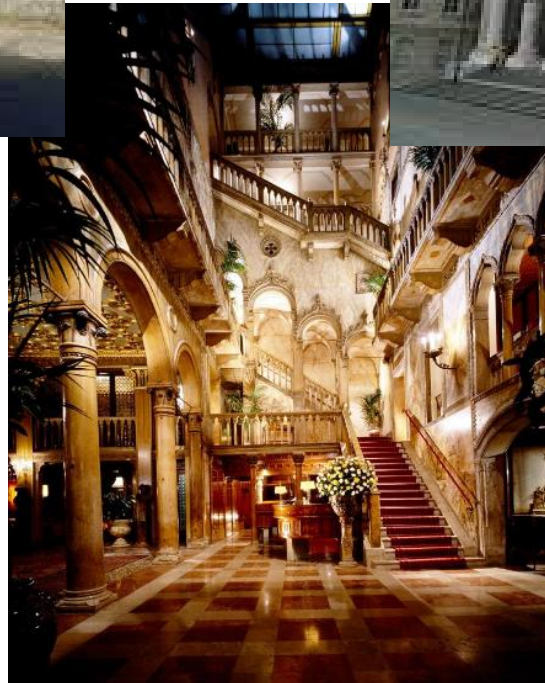
- Challenging to
 - obtain data
 - quantify losses
- However, we are losing our heritage
 - Large scale events
 - Single building/site events



What is Cultural Heritage??

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Tangible cultural heritage: immovable



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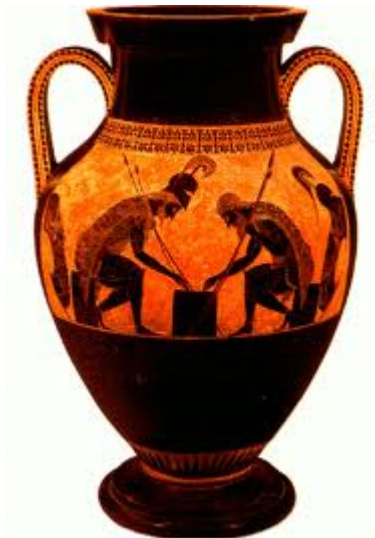


What is Cultural Heritage?



What is Cultural Heritage?

Tangible cultural heritage: movable



What is Cultural Heritage?

Intangible cultural heritage (oral traditions, performing arts, rituals)



What is Cultural Heritage?

Natural heritage



What is Cultural Heritage?

Tangible cultural heritage: Underwater



**Drivers of Change
And the Need to
Protect Our Cultural Heritage**

Drivers of Change 1: We continue losing our Heritage to Disasters

Natural Disasters



Earthquakes



Volcanoes



Floods



Avalanches/Landslides

Drivers of Change 1: We continue losing our Heritage to Disasters

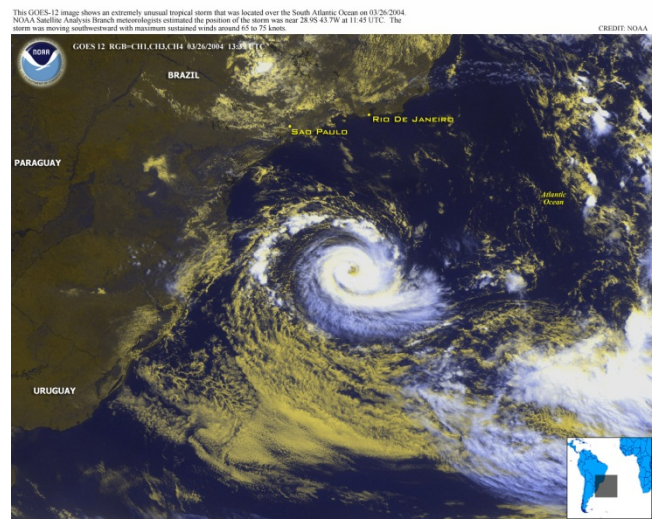
Natural Disasters



Fire



Tsunamis



Hurricanes



Wildfires

Drivers of Change 1: We continue losing our Heritage to Disasters

Man-Made Disasters



Buddhas of Bamiyan



Kasubi Tombs



Egyptian Scientific Institute



Tombs, Timbuktu

Drivers of Change 1: We continue losing our Heritage to Disasters

During Disasters



Insufficient Disaster Management Plan



Drivers of Change 1: We continue losing our Heritage to Disasters

Post Disasters



Post Disaster



Premature Demolition

Drivers of Change 2: We Need to Protect Our Collective Heritage

a. Significance/role

Spiritual, Cultural, Social, Economic-

- Spiritual center
- Serves as physical anchors within a community
- Maintain community pride and a sense of belonging
- Educational facilities
- Economic/cultural tourism
- Area of refuge in emergency situations.



Drivers of Change 2: We Need to Protect Our Collective heritage

b. One Of a Kind



Drivers of Change 3: Cost Savings

- **World Bank:**

For every dollar invested in disaster risk reduction, between four and seven dollars are saved in the long run.

- **Peru:**

Incorporating risk reduction into development investments led to a cost-benefit ratio of 1:37.

(UNISDR 2009)



Drivers of Change 3: ~~Cost Savings~~ → Investment

'Disaster mitigation and prevention are an investment, not a cost'

(UNISDR 2009)

Drivers of Change 4: Prevention Protects

Chile:

- 8.8-magnitude earthquake in 2010
- less than one person out of every 600 affected was killed.
- effective building codes and other DRR measures implemented



Haiti :

- earthquake 500 times less powerful,
- killed one in every 15 persons affected.



Drivers of Change 5: Alignment

- Hyogo Framework for Action
- Millennium Development Goals
- UNISDR

... 'proceed from protection against hazards to the management of risk through the integration of risk prevention into sustainable development.'

UNISDR

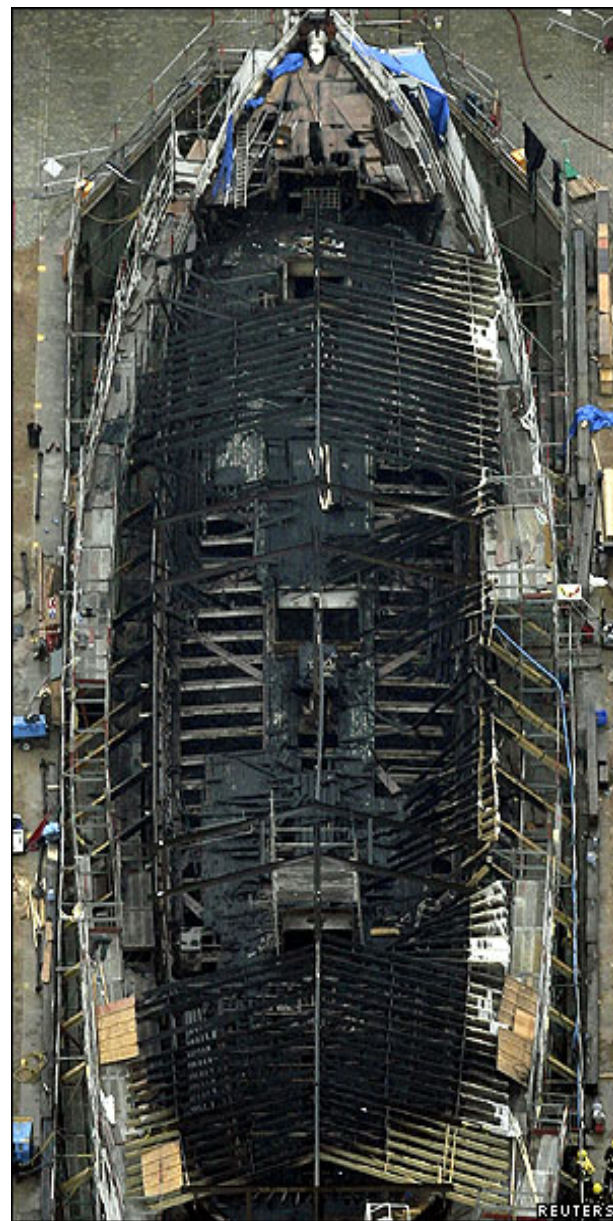
Drivers of Change 6: Support Cultural Tourism



Cutty Sark (1869) Fire: 2007

Fire related damage: USD 10 mil
Visitor revenue (2yrs): USD 40 mil
USD 50 mil +

Local restaurants, souvenirs, hotels, stores, etc.



**Promoting
Prevention
Over
Recovery**

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How???

Promoting Prevention over Recovery

1. Creating Awareness

Stakeholder	Current Role	Potential Role	What motivates them?	How to engage them?
Governments – national, regional, local				
Civil (emerg response)				
Military				
Financial (banks)				
Advocacy/Project Management				
Technical experts				
Communities				
Owners/Residents				
Media				
Organizations				
Other				

Promoting Prevention over Recovery

2. Creating Awareness → Capacity Building

Stakeholder	Current Role	Potential Role	What motivates them?	How to engage them?
Governments – national, regional, local				
Civil (emerg response)		Information needs to be:		
Military		•tailored		
Financial (banks)		•motivating		
Advocacy/Project Management		•easy to understand		
Technical experts		•accurate		
Communities				
Owners/Residents				
Media				
Organizations				
Other				

Promoting Prevention over Recovery

3. Engaging Governments & Policy Makers

- Responsible in part for supporting:
 - development of codes, standards and guidelines
 - implementation
 - design oversight and reviews
 - enforcement
- Tax incentives.
- etc

Promoting Prevention over Recovery

4. Implementation and Demonstration through Project Work

- Teach through demonstration and hands-on experience
- Actual projects to supplement reading and theoretical analyses.
- Develop Long Term Sustainable Solutions
 - solutions supportable locally - knowledge, experience, equipment, materials and tools to maintain/service these.
 - management/maintenance plans for long term



Promoting Prevention over Recovery

5. Enhancing the Role of Media

Media can have a substantial impact



Promoting Prevention over Recovery

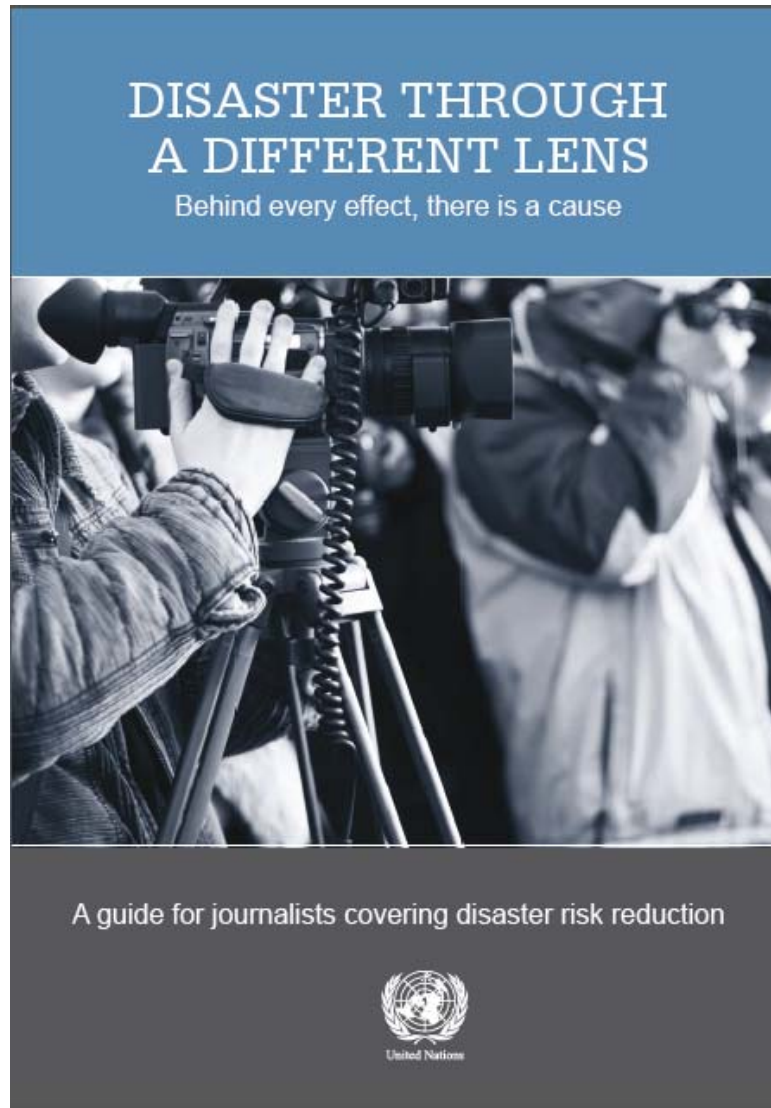
5. Enhancing the Role of Media

Media can have a substantial **POSITIVE** impact on

- disaster risk reduction stories and creating awareness—
 - help communities understand what it is that makes them vulnerable,
 - what communities can do to increase capacities to prevent and mitigate disasters,
 - how to cope with disasters.
- root causes behind disasters- Why disasters happen? How can we prevent them?
- disaster's social dimensions- Who is responsible for 'hazards 'turning into 'disasters'?

Promoting Prevention over Recovery

5. Enhancing the Role of Media



Promoting Prevention over Recovery

6. Finding and Engaging Resources & Technical Experts

- Experts need to be technically competent, and also open to
 - understanding local cultures
 - local methods, materials and resources
 - establishing sustainable solutions
 - limiting the impact of solutions on structure and aesthetics
 - providing cost-effective and low cost/high impact solutions.

Promoting Prevention over Recovery

6. Finding and Engaging Resources & Technical Experts

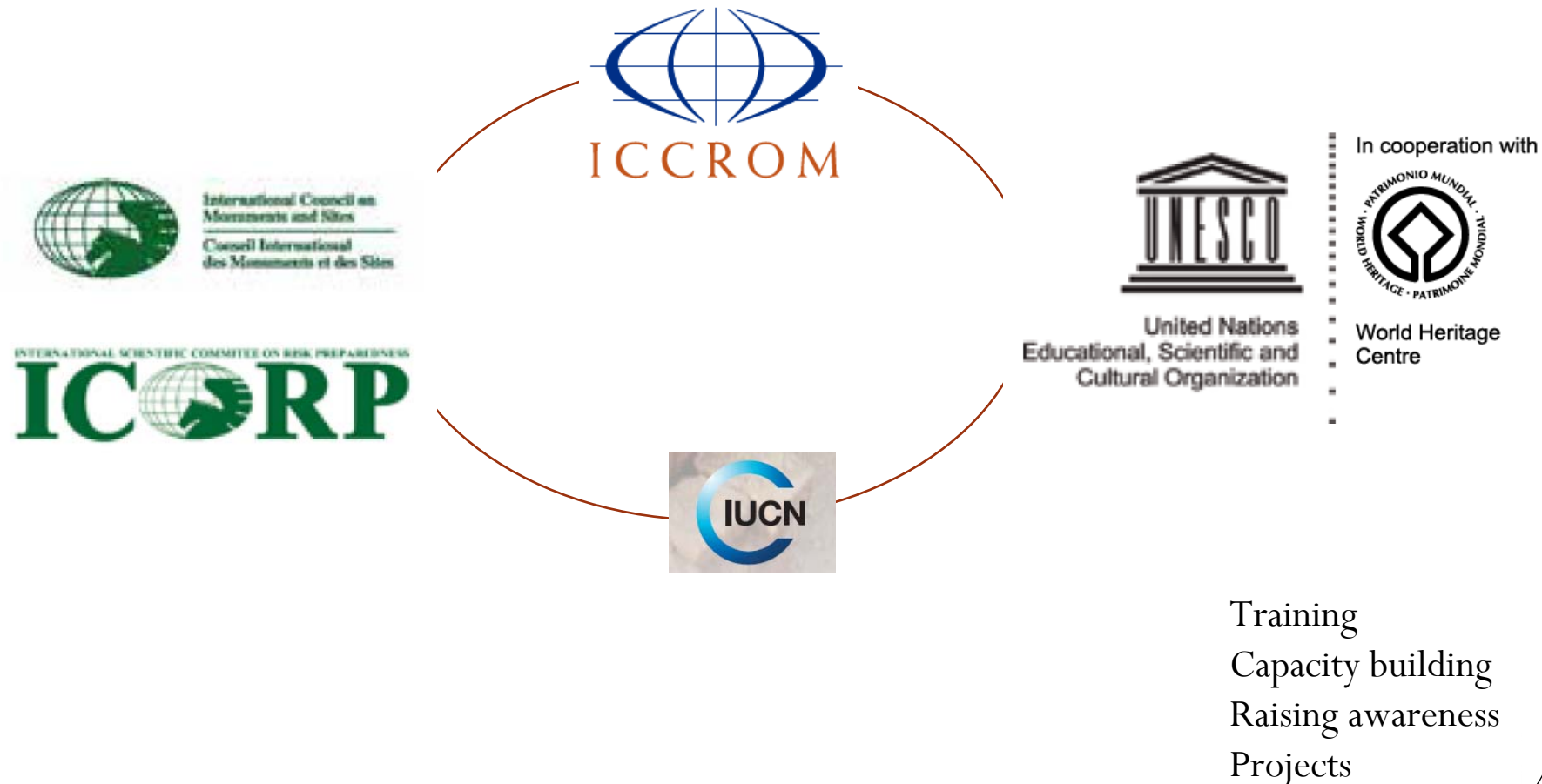
Who is ICOMOS/ICORP??

- one of the International Scientific Committees of ICOMOS (International Council on Monuments and Sites)
- Focusing on Risk Preparedness of Cultural Heritage
- promotes protection of cultural heritage from effects of disasters and armed conflict.
- Collaborates with international, national and non-governmental organisations



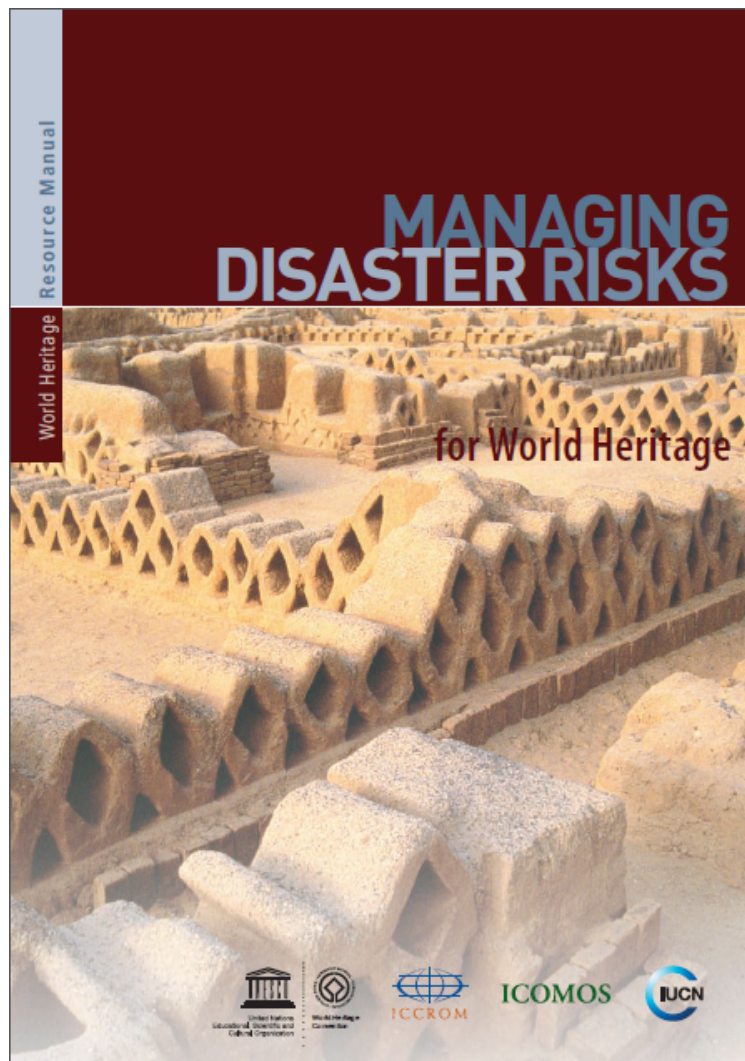
Promoting Prevention over Recovery

6. Finding and Engaging Resources & Technical Experts



Promoting Prevention over Recovery

6. Finding and Engaging Resources & Technical Experts



HERITAGE AND RESILIENCE

Issues and Opportunities for
Reducing Disaster Risks



Featured Event

Heritage and Resilience

Date: Today

Time: 11.15a-12.45p

Place: Room 3, Level 0



MARSH



ICORP



Conclusions

- Protecting Heritage Benefits a Communities' Resilience.
- Incorporate Cultural Heritage into Disaster Risk Management Plans
- A culture of '*prevention over recovery*' has numerous benefits, including saving lives and protecting our cultural heritage.
- Technical experts and resources are available to support this.



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