

# Reducing Disaster Risks to Cultural Heritage

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## ABOUT RIKA

RIKA is a social entrepreneurship startup (DIPP-29629) with an aim of bringing research into the core of disaster management activities in India and other parts of South Asia. Resonating the Sendai declaration in relation to the need for widening the scope of Science and Technology in the disaster management, we at RIKA envision to act as a bridge connecting academic research, policy makers and field practitioners to make informed decisions and use of new technologies

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## Introduction

Each year disasters caused by natural and human induced hazards cause enormous damage to cultural heritage, which include historic buildings, urban areas, museums, libraries and archives depriving communities of their irreplaceable cultural assets. Moreover, damages to cultural landscapes and local flora and fauna in general cause loss of valued ecosystem services thereby putting sustainability of local communities at risk. Often disasters also affect the intangible cultural heritage of traditional knowledge, practices, skills and crafts that ensure cultural continuity, as well as the means for its protection and maintenance.

There are many global examples that demonstrate the impact of disasters on cultural heritage properties. In Korea, arson damaged the Sunraemon Gate in 2008, which is designated as cultural property number one. Other damages to heritage worldwide due to disasters include Historic Settlements in Central Italy and Bagan Archaeological Site in Myanmar due to earthquakes in 2016, World Heritage Monument Zones of Kathmandu Valley due to 2015 earthquakes in Nepal; Fires in the World Heritage Town of Lijiang in China in 2013 and 2014; and the Old Town of Edinburgh in the United Kingdom in 2002. Cultural heritage sites have also suffered enormous damages due to human induced hazards like conflicts and vandalism, such as in the case of Aleppo and Palmyra in Syria and Timbuktu Shrines in Mali and Bamiyan Buddhas in Afghanistan.

Climate change is increasing the number of disasters and their devastating impacts. From 1988 to 2007, 76 per cent of all disaster events were hydrological, meteorological or climatological in nature. These hazards are adversely impacting on natural and cultural heritage. Take for example the case of forest fires in Eastern Europe in 2008, which posed a high risk to the archaeological site of Olympia in Greece. Flash floods due to unprecedented heavy rains in India's Uttarakhand State in 2013 destroyed many heritage structures in the region, while storms in Western Europe in 2010 flooded many historic town centres such as Rome. Also heavy rains in Thailand caused the World Heritage Site of Ayutthaya to remain submerged in water thereby causing insurmountable loss to the foundations of historic built structures. The likelihood of increased weather extremes in future therefore gives great concern that the number or scale of weather-related disasters will also increase thereby dramatically increasing their impact on heritage in not too distant future.

Needless to say, disasters not only cause material damage but also put the lives of visitors, staff and local communities in and around Cultural heritage Properties at risk. These also affect the livelihoods linked to heritage and the revenues generated by the local government and the private sector through tourism. Finally, the psychological impact on communities due to loss of heritage to which they are closely associated cannot be underestimated.

### **What needs to be done**

- Considering the above mentioned challenges, disaster risk management of cultural heritage is need of the hour. On one hand, this would necessitate each heritage site and museum to have its own disaster risk management plan that is tailored to its specific characteristics. On the other hand, cultural heritage needs to be well integrated into overall disaster risk management policies and plans at national, regional and local levels.
- Moreover heritage sites and museums should undergo integrated risk assessment that takes into account multiple hazards / threats, multiple physical, social, economic, institutional and attitudinal vulnerabilities and exposure and consequent potential impact on heritage attributes and the associated values, people's safety, economy and livelihoods and on the social structure.
- Various components of disaster risk management plan of cultural heritage before, during after disaster would include prevention, mitigation and preparedness measures, emergency response procedures, and recovery and rehabilitation process. However investing in disaster risk reduction through mitigation and preparedness makes much more economic sense than investing heavily on response and recovery as previous experience in Nepal, Myanmar and Italy have aptly demonstrated.
- Going by the widely accepted principle of 'Building Back Better', recovery and rehabilitation process should incorporate mitigation of risks for future disasters.
- In order to undertake effective measures for disaster risk reduction, there needs to be greater cooperation between agencies and professionals from heritage and disaster management fields.
- For emergency response, heritage professionals and agencies should work closely with civic defence organizations. Sendai Framework on Disaster Risk Reduction adopted in 2015 has clearly advocated reducing risks to cultural heritage in the national policies on disaster risk management.
- Moreover DRM for cultural heritage should be integrated into various development sectors such as sanitation, water supply, housing, environment, infrastructure and services. This would also require capacity building initiatives at various levels.
- Close engagement of local communities is crucial as they can effectively assist as volunteers during emergency situations. Local Nongovernmental Organisations (NGOs) can also play very important role in bridging the gap between government and local communities. This would necessitate effective awareness raising programmes to sensitise community members on impending risks to lives and heritage and the significant role communities can play as volunteers in reducing risks as well as responding to disasters. Media can play a crucial role in achieving this.

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