Measuring disaster impacts on the cultural heritage

Experiences from Nepal Earthquake 2015

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Key questions?

• How did we measure economic losses on our cultural heritage attributed to the 2015 Earthquake in Nepal?

• What were the data collection challenges?

• What kind of disaster-related statistics were produced?
Figure 5. South face of Nautalley Durbar located in Kathmandu Durbar Square viewed from Basantapur Dabali: (a) before earthquake, (b) after earthquake, (c) load path discontinuity in Nautalley Durbar, and (d) damage to white masonry building next to the Durbar. The upper three stories (two tiers) of the Nautalley Durbar collapsed due to the earthquake. The white masonry building next to the Durbar suffered severe damage and the entire front part of the building (south face) was destroyed.
Nepal’s Experience: 2015 Gorkha earthquake

- 920 cultural monuments: Affected
- Post Disaster Needs Assessment (PDNA): prepared by National Planning Commission following the International Guidelines developed WB and EU.
- US$ 169 million: estimated total damages for heritage sector
- US$ 7 billion (NPR 706 billion): total value of disaster effects (damages and losses)
How did we measure economic losses on our cultural heritage attributed to the 2015 Earthquake in Nepal?

• Estimate the Direct Economic loss
• Indirect Economic loss
• Other Indirect Impacts

• The loss of the heritage sector was estimated on the following assumptions:
  • It is estimated that the decline in revenue from ticket sales at monuments within the Kathmandu Valley will amount to losses worth NPR 600 million (US$ 6 million) over the next 12 months.
  • The preliminary monetary loss was set at 10 percent of the physical damage or close to US$ 17 million.
What are the data collection challenges?

• Lack of baseline data of the cultural heritage
• Lack of detailed inventory of the cultural heritage
• Lack of skilled manpower
• Lack of standard guidelines to measure the economic losses
• Lack of co-ordination between different agencies
• Lack of Sufficient Financial Resources
What kind of disaster-related statistics are produced?

According as DRSF following disaster related statistics can be produced

• *By hazard types (physical, Hydrological, Meteorological & Climatological, Biological, Other)*
  and
• *By Geo Region and National level*
  (units6-Direct impact on cultural heritage)

• 6.1 Direct impact on cultural heritage zones
  • 6.1.1 UNESCO cultural heritage sites
  • 6.1.2 National cultural heritage designations
  • 6.1.3 Urban heritages
  • 6.1.4 Other heritage designations
• 6.2 Direct impact on cultural heritage objects
  • 6.2.1 Buildings and monuments
  • 6.2.2 Cultural heritage valuables
  • 6.2.3 Other cultural heritage (please specify)