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Socio Economic impact of natural and climate change hazards on cultural heritage sites

George Alexandrakis (1), Constantine Manasakis (1,2), George Kozyrakis (1), Francesco Tosti (3), Elisavet Kavoulaki (4), and Nikolaos Kampanis (1)

(1) Foundation for Research and Technology, Hellas, Institute of Applied and Computational Mathematics, Heraklion, Greece (alexandrakis@iacm.forth.gr), (2) Department of Political Science, University of Crete,, (3) Comune di Gubbio, (4) Ephorate of Antiquities of Heraklion, Ministry of Culture and Sports Greece

The potential impact of Climate Change and natural hazards on cultural heritage represents an important issue demanding a multi-disciplinary approach. The knowledge of the status of the conservation of CH sites is an essential element in the assessment of vulnerability. Therefore, the protection of cultural heritage from Climate Change effects and natural hazards requires a comprehensive strategy, which includes risk assessment and the involvement of end users.
In the present work, the approach of the “Total Economic Value framework for cultural heritage” is followed considering the Direct and indirect economic value of a cultural heritage site. As case study areas the CH sites of coastal Fortress Rocca al Mare and Knossos Palace in Heraklion Crete and the city of Gubbio are considered. The Total Economic Value of Cultural Heritage Site is estimated for each site for a certain period based on the forecast regarding the expected number of visitors. More specifically, the Total Economic Value (TEV) is the sum of the Direct Economic Value (DEV) and the Indirect Economic Value (IEV) of the site for a certain number of years. The DEV are the expected revenues based on the expected number of visitors and the expected ticket prices. The IEV counts the inter-industry socioeconomic effects created by the expected number of visitors for a certain number of years in the area where the site is located. Therefore, this branding effect is capitalized in the indirect value created by the visitors in the area. In this context, IEV is the expected expenses of the expected number of visitors in the relevant area. The data used include the expected number of visitors; the average length of stay and the average daily money spent. Forecasted visitors; average length of stay; and average daily spending are specific multipliers that are estimated based on the time series for the length of stay and the daily money spent in the area under study. The TEV of the Heraklion sites is estimated to be 14.392.967.604,32€ for the period 2016-2030. For Gubbio the TEV for the same years is 211.447.984,11€ṪThe Umbria 2016 Earthquake paradigm, showed that disasters reduce the number of visitors in an area, even if not seriously affected by the event. The analysis of the socioeconomic value of CH sites stated that they provide a range of both market and non-market benefits to society, where some of them are related to non-use values and others to use values. In the case of conservation, non-market benefits often play a significant role, which requires competence in socioeconomic risk assessment. This provides opportunities for policy interventions for the conservation of the CH sites and the promotion of their non-market cultural value. In order to do this, protection measures need to ensure the integrity of CH with respect to the impact of climate change.
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