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IPL Project Proposal Form 2022

(MAXIMUM: 3 PAGES IN LENGTH)

1. Project Title: **International Panel of Experts on Landslide Risk for Cultural Heritage Sites (NICHE)**

2. Main Project Fields

Select the suitable topics. If no suitable one, you may add new field.

(1) Technology Development

A. Monitoring and Early Warning, **B. Hazard Mapping, Vulnerability and Risk Assessment**

(2) Targeted Landslides: Mechanisms and Impacts

A. Catastrophic Landslides, **B. Landslides Threatening Heritage Sites**

(3) Capacity Building

A. Enhancing Human and Institutional Capacities

B. Collating and Disseminating Information/ Knowledge

(4) Mitigation, Preparedness and Recovery

A. Preparedness, B. Mitigation, C. Recovery

3. Name of Project leader

Yasser Elshayeb

Affiliation: The American University in Cairo, Professor of Engineering (office and position)

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Core members of the Project

Names/Affiliations:

- **Claudio Margottini / Adjunct Professor on UNESCO Chair on prevention and sustainable management of geo-hydrological hazards, University of Florence**
- **Daniele Spizzichino / The Italian Institute for Environmental Protection and Research– ISPRA, Rome, Italy**

4. Objectives: (5 lines maximum; what you expect to accomplish?)

- **Create a Voluntary Consultative body of Cultural Heritage Landslides Professionals**
- **Help governments / contractors to assess Landslide Hazards at Cultural Heritage Sites**
- **Share knowledge about Landslide Hazards for Cultural Heritage Sites**
- **Build Capacities for Cultural Heritage Landslides Hazards assessment and mitigation**

5. Background Justification: (10 lines maximum)

Cultural Heritage sites that are exposed to landslide hazards are in need for a special attention and treatment when it comes to protection and remediation. It is believed that within the ICL

community a lot of experts may help in assessing, guiding, advising, and following on governmental and local activities of landslide hazard mitigation in sites of high societal values. The ICL network, with its relationship to UNESCO and ISDR, would be a great asset for the success of such an effort.

6. Study Area: (2 lines maximum; where will the project be conducted/applied?)

Cultural heritage sites at risk, anywhere in the world. We will start with known sites in Egypt, as a showcase. Capacity building workshop will be also conducted.

7. Project Duration: (1 line maximum)

5 years

8. Resources necessary for the Project and their mobilization

Personnel, Facilities, and Budgets

It is believed that voluntary participation from ICL experts would be needed, providing that the project will be able to pay for the travel and accommodation expenses of experts. The main resources necessary are the visibility of the International Panel of Experts and the access to international networks.

Each year, a lumpsum of 7000USD would be sufficient to co-fund travel and accommodation of experts to two sites, giving advice to local municipalities and governments and holding capacity building sessions.

9. Project Description: (30 lines maximum)

Cultural Heritage sites that are exposed to adverse environmental effects are many, as we witness a lot of deterioration and loss of value of cultural heritage sites due to landslides, block movements, geological and hydrological deterioration, etc. where several cultural heritage sites are built of natural materials (Sphinx statute in Egypt, Buddha statutes in Afghanistan, etc.), is being carved or built in rocks (Petra in Jordan, Rock-Hewn Churches of Ivanovo in Bulgaria, etc.), or being built on natural cliffs and slopes (Machu Picchu in Peru, Eldeir Elbahari in Egypt, etc.). Those cultural heritage sites are heavily affected by their natural environment and the deterioration of constitutive rocks.

Governments and municipalities concerned with maintenance, safeguarding and conservation of those cultural heritage sites spend huge amount of money and resources to keep those sites in a good condition, as they constitute part of the country's wealth and heritage (in addition to Tourism).

The main aim of this project is to bring the vast expertise and knowledge of the ICL members voluntarily to the service of the government / communities in charge of cultural heritage sites, and to give advice on tools and techniques of restoration and safeguarding against landslide and block movements risks.

We believe that by building the capacity of local government and municipalities, in addition to guiding local populations in countries that are not wealthy enough to pay for high fees consultation, would lead to raising awareness of problems facing cultural heritage sites and raising funds necessary for the safeguarding and conservation of those sites.

This initiative would depend heavily on the networking effect that exist already within the ICL and its international intergovernmental supporting organizations but will also call on the expertise available in various members of the ICL.

We aim to start small with a voluntary consultation and advise given to two chosen sites (one of them will be in Egypt), in addition to hosting a technical school on Geo Engineering tools for cultural heritage conservation and preservation, as to show case the capacities and the influence that the ICL personnel may raise, then we would be moving towards more structured voluntary consultations around the world in subsequent years.

The criteria for choosing intervention to other sites will depend on the following set of criteria: 1. Relevance of the cultural Heritage Site to Landslides Risks, 2. Registration of the Cultural Heritage Site on UNESCO cultural heritage lists (especially the red list), 3. Current efforts and measures taken by local authorities / projects already into action for the preservation or assessment of risks for the cultural heritage site under consideration, and 4. Availability of experts to conduct the voluntary consultation.

The three experts that are proposing this project are considered as the core team of expertise. A call for expertise will be sent to all ICL members, to express their willingness to join the larger pool of expertise and enrich its membership.

While the sustainability of the funding for the activities of the project is a potential problem, but the members of the core team, and eventually the larger pool of expert will work on applying for other projects and funding, under the label of IPL.

The final objective of the project, is to create a pool of expertise and a portfolio of voluntary interventions from ICL members that are able to help and give consultations for governments and municipalities / Capacity Building workshops and trainings about how to safeguard Cultural heritage Sites against adverse natural effects of landslides and other Geo Environmental hazards.

10. Work Plan/Expected Results: (20 lines maximum; work phases and milestones)

Phase	Activity	Results
Phase I	Building the NICHE	Experts are identified in various categories, and accepted to participate in the NICHE
Phase II	Ramping up	Holding two voluntary consultations to two different site managers (year 1) / holding one capacity building workshop in one site of choice
Phase III	Cruising speed	After Assessment of activities of the first year (Phase I and Phase II), the NICHE will be participating in regular consultation and voluntary work for various Cultural Heritage sites around the world. The NICHE experts will also work on capacity building for local workers and stakeholders through regular workshops and trainings

11. Deliverables/Time Frame: (10 lines maximum; what and when will you produce?)

Phase	Deliverable	Time frame
Phase I	NICHE is created / experts are identified and first meetings are held	6 months after the beginning of the project
Phase II	NICHE members giving two consultations to two different sites NICHE members will hold one capacity building workshop	During the first year of the project
Phase III	NICHE members giving regular voluntary consultations to site managers / local governments and municipalities NICHE experts will hold capacity building workshops / trainings for local stakeholders	Throughout the next 4 years of the project, 2-4 sites per year 2 Capacity Building activities per year

12. Project Beneficiaries: (5 lines maximum; who directly benefits from the work?)

The project beneficiaries are:

Local municipalities in charge of cultural heritage sites

Heritage managers / heritage conservators / Geologists and Engineers (beneficiaries of the Capacity Building events)

13. References (Optional): (6 lines maximum; i.e. relevant publications)

- **MORISHIMA, K. et al. Discovery of a big void in Khufu's Pyramid by observation of cosmic-ray muons. Nature, Volume: 552, <http://dx.doi.org/10.1038/nature24647> 2017.**
- **Abbas, K. ELSHAYEB, Y. IMAM, H. "Methodological Approach for the Assessment of Natural and Anthropological Hazards: Case Study on Saqqara Historical site in Egypt", Proceeding of the ICL-IPL Conference, 8-11 March 2016, Kyoto, Japan.**
- **ELSHAYEB, Y. "ICT and Cultural Heritage". Proceeding of the HU-BTU First International Conference on Heritage Conservation and Site Management. Luxor, 8-11 December 2013.**
- **KESHK, F. TALAAT, S. ELSHAYEB, Y. "Documentation of Cultural Heritage in South Sinai: The case of Beit Hathour". Proceeding of the HU-BTU First International Conference on Heritage Conservation and Site Management. Luxor, 8-11 December 2013.**
- **Claudio Margottini, Paolo Pagnin, Daniele Spizzichino "Geotechnical problems in the foundation of Maya Devi Temple World Heritage sites in Lumbini: the Birthplace of the Lord Buddha", 17th European Conference on Soil Mechanics and Geotechnical Engineering. 2019**

Note: Please fill and submit this form **by 15 September 2022** to ICL Network
<icl-network@iclhq.org> and KLC secretariat <klc2020@iclhq.org>