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Information for Cultural Heritage Management in Myanmar - A tourism oriented perspective

The following document summarises the outcomes of workshop : *Computer science and humanities for cultural heritage in Myanmar* held at the Free **University of Bozen** on Dec. 15, 2015

The WS focused on the following key aspects : economic aspects of the tourism in Myanmar, activities related to archaeological excavations in Myanmar, specialised database applications particularly oriented to temporal dimension management and to spatial analysis applications, design of geographic information system for cultural heritage risk management , applications for disaster management and land control,

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The presentations of the WS are available at <http://culturalheritagemyanmar.inf.unibz.it/> In progress.

- Myanmar is rapidly developing and modifying itself, it is particularly rich in physical cultural heritage some of it already well known by the touristic flow of visitors whose number is exponentially increased in last few years.
- The “cultural heritage” definition has to be as more comprehensive possible. Buildings, temples, stupa, areas of historical and archaeological interest, natural areas, water bodies and shorelines, specific areas of traditional native events have to be considered as constituents of present cultural heritage of Myanmar.
- All this cultural heritage is not already duly counted and catalogued in Myanmar. The number may be estimated as more than 3500 entities considering large areas such as Bagan only one entity.
- In spite of having one archaeological UNESCO site, the archiving system of the central public administration lacks a comprehensive and systemic catalogue of this huge patrimony which is settled in all states of the Union.
- The physical situation of the geography of the country exposes Myanmar to several natural threads while the seasonal rain is one of the great problems , together with the land risk management and population safety, of cultural heritage risk management and protection.
- It is wise to consider a protection plan of the national heritage

from the natural disasters which occasionally occur (Nagis cyclone (2007) Flood (2015)) and hit seriously the country.

- Myanmar has also a fast development of industrial activities which deeply modify the territory and landscape. In next few years it is also expected a substantial development of the physical infrastructures such as transportation, cities, harbours and other public services.
- While the tourism presence is increasing exponentially (year 2012 = 640 K foreign arrivals ; year 2014 = more 800K foreign arrivals), it is not planned how to develop the Tourism industry in the future.
- Myanmar people and experts expect that tourism industry will be surly developed in near future, because the stability of transition period and political cooperation, but it needs to focus on a plan which may involve the social aspects and it needs to focus on the social and economic return of the investment for local communities.
- As proposed by Myanmar experts, it has been agreed to consider to protect the cultural heritage from the human impact of tourism industry development.
- It has been recognized by the WS that setting up an information infrastructure based on location data might fundamentally contribute to the management of sustainable development of the territory and the settled population and to active preservation of the cultural heritage for a sustainable use.
- An adequate plan for awareness raising and capacity building has to be defined and activated. Adequate programmes for training and higher education capacitating have to be defined according also to opportunities highlighted by University of Bozen.

Scientific, technical and operational issues

- The geographic scale factor of cultural heritage location, which necessary should be at nation wide level, has to insure the interoperability of location and cataloguing data while the satellite images should play a relevant role for the overall vision and analysis.
- The semantic of data collected for cultural heritage cataloguing has to be investigated with local experts in order to define the most effective data model.
- The private user needs and public administration needs have to be defined in order to insure the effectiveness of the system to be developed. All available databases at international level have to be explored and linked in the system architecture for maximising the flow of information.

- Specific models of risk evaluation have to be developed considering the peculiar vulnerability and the dangerousness which affect the cultural heritage of Myanmar.
- Specific systems of touristic recommendation for travellers and operators may be developed to help the sustainable exploitation of cultural heritage.

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