Introduction

The genesis of the World Heritage Convention can be said to mark an idealistic moment in international politics when, in the aftermath of the destruction of historical monuments during the Second World War, the need for international cooperation for their reconstruction and restoration was almost universally articulated. Some knowledgeable commentators have correctly remarked that the Convention forms part of the new architecture of global governance and creates a world without borders.

There is no doubt that the World Heritage Convention was ahead of its time when it was being conceptualized and negotiated in the 1960s. No other international treaty embodies all the three defining characteristics of the Convention namely: (i) the notion of the common heritage of humankind and the need for international cooperation for its safeguarding; (ii) the aspect of intergenerational equity i.e. safeguarding heritage not only for the present but also for future generations; and most importantly (iii) bringing both cultural and natural heritage under the purview of one standard setting instrument.

There have been many achievements of which we can all be proud: the Convention has identified and conserved sites of global importance; it has enabled the mobilisation of resources for conservation and promoted international cooperation; it has catalysed the development of several policies, principles and standard setting documents; it has been instrumental in mitigating the negative impacts of socio-economic pressures threatening the sustainability of these sites; and it has fostered sustainable development locally, regionally and globally.

Standard setting role

An important point that I wish to highlight is about Article 5 of the Convention. We need to consider how the policy and practice of World Heritage Conservation can more effectively influence national policies, laws and institutions for promoting heritage conservation in the country as a whole – a potential that has not yet been fully realised.
The Convention was never intended to protect everything that was worthy of preservation; it was meant to influence better management of a country's heritage, but not directly bring all of it under the purview of the Convention's protection regime. For the latter purpose the 1972 “UNESCO Recommendation concerning the Protection, at National Level, of the Cultural and Natural Heritage” is an important instrument and provides the necessary framework for the overall protection of heritage.

Unfortunately, there is growing evidence to show that heritage sites that are not inscribed on the World Heritage List are very often neglected, and suffer from serious lack of resources and proper management. This is contrary to the spirit of Article 12 of the Convention, which reminds us of the value also of heritage that is not included on the World Heritage List.

Therefore, there is a need to emphasize the inspirational or motivational role of the World Heritage programme to impact positively on heritage conservation as a whole, and fully realize the standard-setting role of the Convention.

**Conservation and management**

Concern for the conservation of heritage sites is not a recent development, it has been a concern even before the Convention came into being, and in fact, spawned the birth of the Convention. In the 1950s and 60s concerns were expressed over iconic sites like Venice in Italy and Mohenjo-Daro in Pakistan suffering from natural disasters, or the project for the Aswan Dam threatening the temples at Abu Simbel in Egypt, or the temples at Angkor Wat in Cambodia and Borobudur in Indonesia suffering from neglect, all of which led to the development and implementation of successful safeguarding campaigns.

Currently also, the sustainability of an increasing number of World Heritage sites is being called into question due to development imperatives. The case of World Heritage cities or historic centres and World Heritage natural sites readily comes to mind, as these are by far the most numerous in the annual state of conservation reporting to the World Heritage Committee.

Ill-planned and inappropriate building and transportation projects and resource extraction activities like mining and oil and gas exploitation are some of the commonly encountered threats to the outstanding universal values of these sites.
At the same time, the frequency of sites becoming victims of natural disasters and conflicts is also on the rise, as the size of the Word Heritage List expands, which today stands at 981 sites in 160 countries.

What is more of a troubling development, starting with the unfortunate case of the destruction of the Bamiyan Buddhas in March 2001, is the deliberate targeting of World Heritage during conflict. This is also evidenced by the recent unfortunate events in Mali and Syria.

Sometimes such deliberate and despicable acts are undertaken due to ignorance and intolerance, intended to deny and destroy the symbols of peoples’ identity and beliefs, and sometimes to attract international attention. I feel that we must more widely use and strongly promote the 2003 “UNESCO Declaration concerning the Intentional Destruction of Cultural Heritage” to guard against such actions.

Regrettably, World Heritage sites are also being implicated in the very causes of conflict that they are meant to prevent and avoid. The cases of the Old City of Jerusalem and the Temple of Preah Vihear are well known. But there are other examples also from different regions, including from this very sub-region.

**Range of threats**

There are diverse threats negatively impacting on the state of conservation of sites inscribed on the World Heritage List, including the challenge of these sites suffering from neglect and lack of management, as well as of variable conservation standards.

To systematically address this issue, the World Heritage Centre has established an online Information System, which is a comprehensive and integrated database on the state of conservation of World Heritage properties since 1979 and the factors affecting their Outstanding Universal Value. The database currently covers 2,792 state of conservation reports relating to 478 World Heritage sites in 133 countries and can be accessed publicly from the home-page of the World Heritage Centre’s website.

An analysis of the reports in this online database reveals that there are a range of factors that negatively impact on the values and integrity of World Heritage sites, but I will highlight only some of them that are most relevant to our discussion on the use of remote sensing technologies. From this perspective, the most commonly encountered management challenges for World Heritage sites are: the lack of clarity on boundaries; unauthorised
constructions and developments; illegal use of resources and extractive activities; building of transportation infrastructure; etc.

As I mentioned, all these major factors are responsive to the use of space technologies, which can be important tools for planning, management and monitoring purposes. Some of the ways in which space technologies can respond to the needs of managers and agencies responsible for the management of World Heritage sites are the following:

- To provide a current view of an ongoing natural or man-made disaster to enable managers to plan for effective response and/or mitigation measures.
- For management planning purposes, to be used in preparing management plans, tourism and visitor use plans, disaster risk management plans, for impact assessment purposes, etc.
- Time series imagery to observe the evolution of certain phenomena or threats, such as encroachments, deforestation, degradation and collapse, unauthorised constructions, flooding, etc. to contribute to the devising of appropriate response strategies.

In particular, time-series images of World Heritage sites are invaluable for monitoring their state of conservation and for appropriate decision making. But timely availability of such images for World Heritage sites, particularly for those on the Danger List, those affected by natural disasters, and for those that occur in conflict zones, is still largely an unfulfilled promise and potential of our cooperation with agencies working in this field.

Space technologies and related products, like satellite images or aerial photographs, are very expensive and are generally not within the reach of all users, particularly those that need them most. As the use of such images for World Heritage conservation and management purposes is essentially a non-commercial use, the agencies concerned should consider the provision of these products as a part of their corporate social responsibility (CSR) agenda and make them available free of cost to those users who cannot afford the usually high cost associated with these products.

**Sustainable development**

Let me conclude with a few words on sustainable development, which is also one of the sub-themes of the Huangshan Dialogue. It is generally acknowledged that World Heritage sites should become a force in the pursuit of sustainable development, because effectively managed sites provide considerable social benefits, contribute to local economic development, maintain essential environmental resources, foster peace and security and promote human rights; all of
which are fundamental to sustainable development. But we must remember that sustainable conservation of these sites is in itself an essential precondition for them to contribute to sustainable development.

Some of the obvious elements of the World Heritage programme that can be said to contribute to sustainable development include: the generation of employment; revenue from tourism and tourism related activities; sustainable use of natural resources; provision of ecosystem goods and services and environmental sustainability; and contribution to quality of life, social cohesion, conflict prevention, etc.

Russell Train, who is one of the founding fathers of the WH Convention, stated in 1967 in his “World Heritage Trust” address to the International Congress on Nature and Man that “World Heritage” classification would be eagerly sought and sites so identified would “become the “five-star” attractions of the world’s rapidly expanding tourist business.” Indeed, we see evidence of this all around us and China is a leading example in this regard. There are many studies from around the world that highlight the contribution of World Heritage sites to sustainable development, particularly in terms of revenues and jobs, but I will not go into those details here.

Suffice to say that there is need to position heritage sites and indeed all of UNESCO designated sites and places, within the global developmental agenda, in view of their undeniable role as enablers and drivers of sustainable development. I may mention that this effort is now part of the larger initiative by UNESCO to position culture at the heart of the post-2015 UN development agenda.

Concluding points

The World Heritage Convention is a visionary and progressive international treaty, and it has come a long way since its inception with considerable success. It has proven to be invaluable in ensuring conservation of the world’s outstanding cultural and natural heritage. It has successfully faced many challenges in the past and continues to do so even today, working in partnership with diverse stakeholders. It has also adapted well to the changing socio-economic context and maintains its relevance and credibility in today’s world. Nevertheless, the Convention needs to refocus attention on some key considerations in order to:

1. Strengthen international cooperation and assistance and focus targeted conservation effort on World Heritage sites in LDCs and SIDS, as well as those on the Danger List.
2. Enhance stakeholder participation in all processes of the Convention, including through the introduction of the principle of free, prior and informed consent.

3. Strongly oppose and speak-up against acts of deliberate destruction of heritage, including their use in conflict situations.

4. Use the experience gained through the conservation and management of World Heritage sites to better manage the country’s cultural and natural heritage as a whole.

5. Fully leverage the potential of World Heritage sites to contribute to sustainable socio-economic development, particularly of local and indigenous communities.

I look forward with great interest to this dialogue for improving international cooperation in the use of space technologies and related issues towards more effective implementation of the World Heritage Convention.

Thank you for your attention.