# International Centre on Space Technologies for Natural and Cultural Heritage under the Auspices of UNESCO

## Report for the 38 Session of the World Heritage Committee

**Doha (Qatar), 15-25/June /2014**

February 18th, 2014

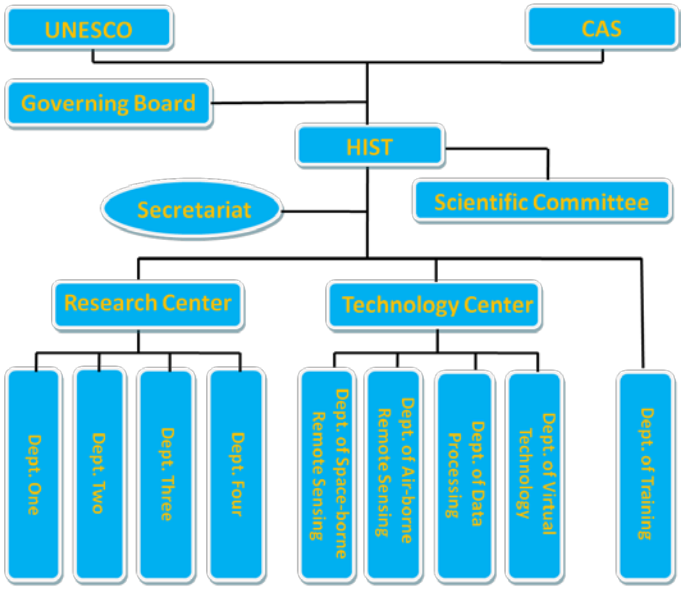
1. **Background and mandate of the Centre**

   The International Centre on Space Technologies for Natural and Cultural Heritage (HIST), a Category-II centre under the auspices of UNESCO, was proposed to UNESCO by the Chinese Academy of Sciences in May 2007, approved by the 35th General Conference of UNESCO in October 2009, and ratified by the State Council of China in April 2011. On July 24, 2011, the launching ceremony of HIST was held in Beijing.

   HIST is hosted by the Institute of Remote Sensing and Digital Earth (RADI) of the Chinese Academy of Sciences. It aims to provide technical services to UNESCO and its member states on using space technologies for UNESCO designated and affiliated sites, namely world heritage sites, world biosphere reserves and global geoparks.

2. **Institutional and operational structure of the Centre (Governing Board, Staffing, Operational funding and premises)**

   The operation and management of HIST is carried out under the direction of a Governing Board. The Governing Board is the decision-making body in charge of examining and approving the mid-term strategy, biennial workplans, annual work report and annual programs and budget, supervising HIST in its implementation of the Board's decisions, and promoting cooperation and exchange with UNESCO, its Member States and relevant international organizations. HIST Executive Team, which consists of about 15 research scientists and international experts and 5 supporting staff, is composed of a secretariat and nine departments: Space-borne Remote Sensing, Airborne Remote Sensing, Data Processing, Virtual Technology, four additional research and one international training departments, respectively.




HIST Organization

HIST's operational funding (4.57 million RMB, about US$ 750,000 at current exchange rates as total in 2013) is now all provided by its hosting institute-RADI and the Chinese Academy of Sciences. HIST is located within the premises of RADI.

### 3. Programs and activities implemented since June 2013 and planned for 2014

| N. | Title of the activity | Reference to WHCBS[1] |
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| 1 | Remote Sensing for Environment of Angkor Site Program<br>The project started with the signing of an MOU between HIST and APSARA in June 2013; it comprises 5 research themes , focusing on the Angkor heritage site and its surrounding landscape. , Project activities underway include: database construction; drainage and surface subsidence of the site; remote sensing image monitoring of the site with regard to forests and human settlements; and the construction of an interactive 3D management information system at the site. | Action 4.7 |
| 2 | Partnership Program with Sri Lanka and Africa for using space technologies for World Heritage Sites and biosphere reserves<br>Sri Lanka is being explored as the second country in Asia and the Pacific for developing a partnership program with HIST; Initial contacts with potential African countries have been established based on expression of interest by the countries and one country will be identified and negotiations started for building collaboration with HIST before end of 2014. | Action 4.7 |
| 3 | Research on Smart Management and Pilot Application of Cultural Heritage Sites in China and Italy based on Earth Observation<br>HIST has developed collaboration with the Institute of Methodologies for Environmental Analysis (IMAA) and Institute of Archaeological and | Action 4.7 |

[1]WHCBS stands for the World Heritage Capacity Building Strategy (see: http://whc.unesco.org/archive/2011/whc11-35com-9Be.pdf )

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| | Architectural Heritage (IBAM) of the National Research Council (CNR) of Italy for developing projects of mutual interest. | |
| 4 | Fine Earth Observation and Cognition of the Impact of Global Climate Change on World Heritage Sites<br>This international project has been approved by the Ministry of Science and Technology of China. It is aimed at establishing and promoting a key technology-based system to monitor and assess the impact of global climate change on the ecology and environment of the world heritage sites in China, Brazil and Canada. | Action 4.7 |
| 5 | New Discovery in Silk Road<br>Based on two years study of Northwest Gansu Province, a research team of HIST discovered 5 new relics, which were not included in the "3rd Archaeological Survey" database on the Dunhuang-Guazhou section of the Silk Road in October 2013. | Action 4.7 |
| 6 | Exploration into the origin of Chinese civilization<br>This project of HIST provided multi-source spatio-temporal data support to archaeological research and has put forward data processing and information detection method for key relics there by providing a scientific basis for archaeological research | Action 4.7 |
| 7 | Review of Wudalianchi World Biosphere Reserve<br>According to the requirement of UNESCO MAB program, Wudalianchi World Biosphere Reserve undertook its ten-year review in 2013. Representatives of HIST were invited by the Chinese National Committee for MAB to participate in the review. By providing high-resolution satellite images, HIST has played an important role in identifying sharp changes that have taken place in the landscape on the reserve over the past 4 years. | Action 4.7 |
| 8 | 1st International Training Workshop on Space Technology for Disaster Mitigation<br>HIST collaborated with CAS-TWAS Centre of Excellence on Space Technology for Disaster Mitigation to organize the International Training Workshop on Space Technology for Disaster Mitigation in Sanya, China, from 11 to 22 November 2013. Over 20 participants from the member states of UNESCO in Asia and Africa participated in the Workshop, which enhanced the capacity building of these countries. | Action 4.5 |
| 9 | Establishing Pilot Database of UNESCO-Designated Areas in Partner Countries<br>HIST will design, develop and establish pilot integrated databases comprising satellite and air-borne images, GIS data and analysis and other relevant data and information for UNESCO-Designated sites in Partner Countries. | Action 4.7 |
| 10 | Preparation for the Huangshan Dialogue on Space Technologies for World Heritage Sites and Biosphere Reserves and the potential new category of Geoparks<br>HIST is organizing the Huangshan Dialogue on Space Technologies for World Heritage Sites and Biosphere Reserves and the potential new category of Geoparks with RADI and UNESCO World Heritage Centre, MAB Secretariat and Division of Ecological and Earth Sciences during May 26-30, 2014 in Huangshan, China. The Dialogue is aimed to facilitate exchange among world heritage sites, biosphere reserves and geoparks, and explore the role of space technologies in the conservation of the above UNESCO designated and affiliated sites. For detail, Pls see: http://huangshandialogue.csp.escience.cn/dct/page/1 | Action 4.8, 5.3 |
| 11 | the 2nd International Symposium of Earth Observations | Action 4.8, 5.3 |

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| | for Arid and Semi-arid Ecosystems which will be held in September 2014<br>HIST will co-organize with RADI the 2nd International Symposium of Earth Observations for Arid and Semi-arid Ecosystems to be convened in the Issy-kul Lake Biosphere Reserve of Kyrgyztan in September 2014. Themes for the Symposium include several environmental aspects closely linked to the work of MAB Program and its World Network of Biosphere Reserves as well as Natural and Cultural Heritage in arid and semi-arid lands. | |

4. **Website of the Centre (if available):** http://www.unesco-hist.org/
5. **Designated Focal Point:**

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