

World Heritage

papers



Understanding World Heritage in Asia and the Pacific

The Second Cycle of Periodic Reporting 2010-2012



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Understanding World Heritage in Asia and the Pacific

The Second Cycle of Periodic Reporting 2010-2012

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Supervision, editing and coordination:

Kaori Kawakami, *UNESCO World Heritage Centre*

Drafting:

Kaori Kawakami, Kai Weise, Paul Dingwall

Copyediting and proofreading:

Caroline Lawrence

Coordination of the World Heritage Paper Series:

Vesna Vujcic-Lugassy

Graphic design: Recto Verso – realization by UNESCO/MSS/CLD

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


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Table of Contents

Foreword <i>Kishore Rao, Director of the UNESCO World Heritage Centre</i>	 Page 5
Introduction	 Page 6
Acknowledgements	 Page 9
Background	 Page 11
Introduction to cultural and natural heritage in Asia and the Pacific	Page 12
World Heritage Convention in Asia and the Pacific <i>States Parties / World Heritage Committee / World Heritage Fund and International Assistance</i>	Page 16
World Heritage properties in Asia and the Pacific <i>Outstanding Universal Value / World Heritage List / List of World Heritage in Danger / Reactive Monitoring on the state of conservation of World Heritage properties / Reinforced Monitoring Mechanism</i>	Page 20
Periodic Reporting <i>First cycle of Periodic Reporting in Asia and the Pacific / Second cycle of Periodic Reporting in Asia and the Pacific</i>	Page 24
Implementation of the World Heritage Convention	 Page 27
Inventories and Tentative Lists	Page 28
Nominations	Page 30
General policy and services for protection, conservation and presentation	Page 32
Legal framework	Page 38
Financial and human resources	Page 39
Scientific and technical studies and research	Page 42
Capacity-building	Page 44

Awareness-raising and education for World Heritage	Page 48
Partnership with the private sector and local non-profit organizations	Page 52
International cooperation	Page 54
Challenges for Conservation	3 Page 57
Summary of trends	Page 58
Factors affecting the properties	Page 60
<i>Local conditions affecting physical fabric / Invasive or hyper-abundant species / Natural disasters / Climate change / Infrastructure development / Service facilities / Pollution / Biological resource use and modification / Physical resource extraction / Unfavourable human activities / Tourism / Interaction with society / Management activities</i>	
Resources for site managers	Page 86
Protection and Management	4 Page 89
Management system/management plan	Page 90
Boundaries and buffer zones	Page 92
Protective measures	Page 93
Financial and human resources	Page 94
Visitor management	Page 96
Monitoring	Page 97
Community involvement	Page 98
Conclusion	5 Page 101
Annex	6 Page 105

Foreword

Since its adoption in 1972, the World Heritage Convention has become the most universal international legal instrument for the conservation and protection of cultural and natural heritage sites of Outstanding Universal Value. Forty years have passed, and the Convention is now ratified by 190 States Parties, with 962 properties located in 157 countries inscribed on the World Heritage List. Asia and the Pacific has been an active partner in implementing the Convention, with all 43 States Parties in the region working towards the identification, protection, conservation, preservation and transmission to future generations of the rich cultural and natural heritage in their countries.

Asia and the Pacific is a vast and diverse region, and its historical, social, geological, ecological and climatic diversity is reflected in its 213 World Heritage properties. Governments, site managers and community members are all responsible for protecting the sites so that their values will continue to endure. This is also the fastest-growing economic region in the world which, combined with the fact that it is also prone to frequent natural disasters, creates unique challenges for the management and conservation of heritage sites. These factors make effective day-to-day management all the more essential if these sites are to be safeguarded for the long term.

In this respect, the Periodic Reporting exercise provides all the States Parties with an excellent opportunity to use a self-assessment tool to review and evaluate the implementation status of the Convention and the state of conservation of all the properties. The second cycle of Periodic Reporting for Asia and the Pacific from 2010 to 2012 benefited from the full participation of all the States Parties in the region, as a result of which the implementation of the Convention and the state of conservation of all the World Heritage sites in the region were thoroughly examined for the first time. The results, reported to the World Heritage Committee at its 36th session in 2012, highlighted a number of key issues identified by the States Parties themselves, such as the importance of improved management plans/systems, sustainable financing mechanisms, community involvement and benefit sharing, and more regional cooperation. Periodic Reporting also served as a catalyst for regional cooperation and the exchange of information and experience among States Parties and site managers, helping to further strengthen the commitment of those who are involved in management of World Heritage properties.

This publication offers the complete results of the Periodic Reporting exercise and includes an interactive DVD with a database of information concerning all the World Heritage properties in the Asia and Pacific region. I hope that these materials will be used to improve understanding of the challenges of these World Heritage properties, and to follow up with appropriate action to ensure the efficient implementation of the Convention and the effective management of sites for the future.



Kishore Rao
Director of the UNESCO World Heritage Centre

Introduction

The World Heritage Convention aims to protect the most outstanding cultural and natural heritage places on Earth. Countries (States Parties) that have adhered to the World Heritage Convention accept an obligation to manage World Heritage properties on their territory to the highest standards of protection, and periodically report on what action they have taken to fulfil this task. Officially, Periodic Reporting is the procedure by which the States Parties submit, in accordance with Article 29 of the World Heritage Convention, to the UNESCO General Conference through the World Heritage Committee, reports on the status of implementation of the Convention. This follows the decisions of the 11th General Assembly of the States Parties to the World Heritage Convention and the 29th General Conference of UNESCO to invite the States Parties to submit reports 'on the legislative and administrative provisions they have adopted and other actions which they have taken for the application of the Convention, including information on the state of conservation of the World Heritage properties located on their territories'.¹

In order to implement Periodic Reporting, the World Heritage Committee has adopted a reporting procedure and format. This requires that States Parties should submit periodic reports every six years, and these reports should be examined by region (Arab States; Africa; Asia and the Pacific; Latin America and the Caribbean; Europe and North America). The result of the first cycle of Periodic Reporting in Asia and the Pacific was reported to the Committee in 2003, and the second cycle was launched by the World Heritage Committee at its 34th session in 2010. The results of the second cycle were reported to the Committee at its 36th session in 2012.

The second cycle of Periodic Reporting covered two major issues – implementation of the World Heritage Convention at national level for the States Parties that had ratified the Convention until 2010; and the state of conservation of each World Heritage property inscribed from 1978 to 2010. All 41

States Parties to the Convention in Asia and the Pacific region participated in the process,² which covered the 198 World Heritage properties in those countries. Information was collected through an online questionnaire and the exercise achieved a remarkable 100% reporting rate.

This publication has been prepared based on the outcome of the second cycle of Periodic Reporting in Asia and the Pacific. Its main purpose is to present the current situation relating to the implementation of the World Heritage Convention as well as the state of conservation of the World Heritage properties in the region. It has been prepared particularly with policy-makers and site managers in mind, who are responsible for day-to-day management of World Heritage properties, in the hope of providing some insights into their daily management roles.

Methodology

Periodic Reporting was coordinated by the World Heritage Centre in close cooperation with national focal points, site managers, international resource persons (mentors), the 14 UNESCO Field Offices in Asia and the Pacific, and the three Advisory Bodies – International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), International Council on Monuments and Sites (ICOMOS), and International Union for Conservation of Nature (IUCN).

Each of the States Parties designated one or two national focal point(s) responsible for coordinating the exercise. In addition to the assistance provided by UNESCO, five mentors appointed by UNESCO assisted the focal points and site managers throughout the process with technical support and advice.

¹ Implementation of the 1972 Convention for the Protection of the World Cultural and Natural Heritage, Resolution of the 29th session of the UNESCO General Conference.

² Brunei Darussalam ratified the World Heritage Convention on 12 August 2011 and Singapore on 19 June 2012, which entered into force on 12 November 2011 and 19 September 2012 respectively. Therefore they did not participate in the second cycle of Periodic Reporting.

Many workshops were organized at regional, subregional and national levels from 2009 to 2011. For practical reasons and in line with the first cycle, the region was divided broadly between Asia on the one hand and the Pacific on the other, and Asia was further divided into four subregions – West and Central, South, North-East, South-East. The exercise started with three subregional workshops in Maupiti (French Polynesia) for the Pacific, Taiyuan (China) for North-East and South-East Asia, and Dehradun (India) for West, Central and South Asia, where guidance was provided to national focal points. These were followed by various national workshops (Bangladesh, India, Indonesia, Islamic Republic of Iran, Nepal, Philippines, Sri Lanka, Thailand, Viet Nam) and subregional workshops (Central, South, South-East Asia, the Pacific) for national focal points and site managers. Other informal working sessions among focal points, site managers, mentors and UNESCO staff members also played an important role. All the States Parties then submitted their reports through an online questionnaire by July 2011. The exercise concluded with two final regional meetings in Apia (Samoa) for the Pacific and Suwon (Republic of Korea) for Asia, where regional Action Plans were adopted based on the outcome of the Periodic Reporting exercise. The *Periodic Report of Asia and the Pacific* was compiled based on analysis of the individual reports submitted by each State Party and submitted to the World Heritage Committee at its 36th session in 2012 together with two separate Action Plans.

This publication largely uses the data collected from 41 States Parties that participated in the Periodic Reporting exercise although it is not limited to this. The data, such as the implementation status of the World Heritage Convention, factors affecting the properties, and their protection and management, reflect the situation in the 41 States Parties and their 198 World Heritage properties. The basic factual information available at the World Heritage Centre, such as the number of States Parties that have submitted Tentative Lists, has however been updated to reflect the most current situation. The data are analysed by subregion, and/or by type of heritage when the issues are particularly relevant to subregional characteristics and/or heritage types, so that the analysis can lead to appropriate strategies. Wherever appropriate, the Pacific data are further analysed separately

for Australia and New Zealand and for the Pacific Island States. This is to take into account the difference in the implementation status of the World Heritage Convention. There are many more properties on the World Heritage List in Australia and New Zealand, some of which have been listed for over 20 years, whereas there are only six from the Pacific Island States, five of which were inscribed as recently as 2008, 2010 and 2012, and most of the Pacific Island States are in the process of preparing inventories and nominations. Moreover, there is a difference in the state of development of the protected area systems and their governance, as well as a contrast in legal land ownership and use between Western types in Australia and New Zealand and traditional customary types in the Pacific Island States.

Approach

Although both this publication and the *Periodic Report of Asia and the Pacific* submitted to the World Heritage Committee discuss the same issue of Periodic Reporting and use the same data provided by the States Parties, there are some important differences between these documents. In the *Periodic Report*, statistical analysis of the questionnaire is presented question by question with various tables and graphs. It reports to readers – mainly those who participate in the World Heritage Committee – the regional and subregional situation and the trend of issues covered in the Periodic Reporting questionnaire. The format used for the *Periodic Report* is the same as that used for the Arab States and Africa, which completed the Periodic Reporting exercise previously, so that the results would be comparable. On the other hand, this publication presents the outcome to readers – policy-makers and site managers in the region who are daily involved in implementing the World Heritage Convention and managing World Heritage properties – in a more practical way. Through close communication with focal points and site managers, we realized that they, site managers in particular, have difficulty in fully comprehending some basic but important concepts and information about the Convention. They may also feel isolated and seek further information from other States Parties and site managers, often without success. At the same time,

many of them have told us that the Periodic Reporting exercise and the subregional workshops are very useful for their work. Given that this second cycle of Periodic Reporting involved full collaboration with focal points and site managers, we believe it is extremely important that the results are shared with them in a constructive and useful manner. To this end, we have tried to make this publication reader-friendly. It is less focused on data and statistics and provides a summary of the current situation along with examples and case studies wherever possible. The order of presentation is slightly different to the *Periodic Report* for ease of understanding, especially by those who are not familiar with the questionnaire. Two important issues – partnership with the private sector and local non-profit organizations, and community involvement – have been highlighted in two separate sections. Also some supplementary information has been included to help readers understand the issues discussed in the questionnaire and motivate them to take further action.

Structure

This publication largely follows the structure of the Periodic Reporting questionnaire. It is divided into five chapters. Chapter 1 provides background information on the World Heritage Convention and the cultural and natural heritage in Asia and the Pacific, which will help readers to understand the rest of the content. Chapter 2 discusses the implementation of the World Heritage Convention in the region, and corresponds to Section I of the questionnaire. It includes information on inventories, nominations, general

policy, financial and human resources, capacity-building and partnership, which are of interest to policy-makers at national level. Chapter 3 presents the factors affecting World Heritage properties, and corresponds to the first half of Section II of the questionnaire. The information provided here focuses on issues at the property level, so will be useful for site managers. Chapter 4 discusses the protection and management of the World Heritage properties in the region, corresponding to the second half of Section II of the questionnaire. This will be useful for both policy-makers and site managers. Chapter 5 is the conclusion, focusing on four key issues for the region that emerged through the second cycle of Periodic Reporting.

The interactive DVD supplied with this publication gives full information on factors affecting the properties in Asia and the Pacific. It provides readers, especially site managers, with a tool to search properties that are affected by the same factors. It also allows readers to search properties by subject (chrono-regional, thematic, biophysical landscape/seascape, and the types of material used), and find information on properties and site managers. The DVD also provides some basic documents including the text of the World Heritage Convention, the *Operational Guidelines for the Implementation of the World Heritage Convention*, and the *Periodic Report of Asia and the Pacific* as submitted to the World Heritage Committee. We hope that both the book and the DVD will provide useful information for those involved in the implementation of the World Heritage Convention and the management of World Heritage properties in Asia and the Pacific region, as well as others interested in World Heritage.

Acknowledgements

The second cycle of Periodic Reporting in Asia and the Pacific, which is the basis of this publication, was made possible by the invaluable contribution and the great teamwork of the many people involved in this exercise in the region.

First and foremost, our thanks go to the States Parties of Asia and the Pacific, the focal points and site managers in particular, for their diligent efforts, hard work, and strong commitment to successful implementation of the Periodic Reporting exercise. We also would like to thank the Advisory Bodies to the World Heritage Committee, ICCROM, ICOMOS and IUCN, for their continuing assistance and contributions, the five international resource persons – Chahryar Adle, Paul Dingwall, Richard Engelhardt, Vinod Mathur and Kai Weise – for advising and accompanying the focal points and site managers throughout the exercise, and the 14 UNESCO Field Offices in Asia and the Pacific for their support and follow-up.

Preparation of this publication was coordinated by Kaori Kawakami of the World Heritage Centre Asia Pacific Unit who, together with Kai Weise and Paul Dingwall, took the leading role in analysis and authorship, while Cecilia Barradas, Peizhi Chen, Xiang Li, Constance von Briskorn and Chao Yang helped in presentation of the data. The drafting team would like to thank the members of the Editorial Board, Chahryar Adle, Richard Engelhardt, Jane Harrington, Feng Jing, Yukio Nishimura, Gamini Wijesuriya and Kumiko Yoneda, for their advice and comments on the drafts of this publication.

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Background



*Samarkand – Crossroad of Cultures, Uzbekistan
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Introduction to cultural and natural heritage in Asia and the Pacific

Asia and the Pacific is a diverse region. It stretches across both global hemispheres from the southern margins of Siberia to the sub-Antarctic islands of the Southern Ocean surrounding the continent of Antarctica, and from western Asia to French Polynesia in the eastern Pacific Ocean. It encompasses a vast array of climates, landscapes and ecosystems: from the deserts of west-central Asia to the tropical rainforests of South-East Asia, Australia and the western Pacific; from the world's highest alpine summits in the Himalayan mountains to the deepest ocean trenches in the Pacific; and from the huge continental landmass of Asia, and island continent of Australia, to the myriad of tiny remote atolls scattered across the Pacific Ocean, which spans an area of about one third of the Earth's surface. Notoriously, the region also contains some of the most active and unstable parts of the Earth's crust and is prone to damaging earthquakes and tsunamis, while the South-East Asian archipelagos occupy the most active volcanic region on Earth. Extreme climatic events, including destructive cyclones and hurricanes, are common, and global sea level rise is impacting along many thousands of kilometres of low-lying coastline and on the oceanic islands of the Pacific, many of which are elevated barely above sea level.

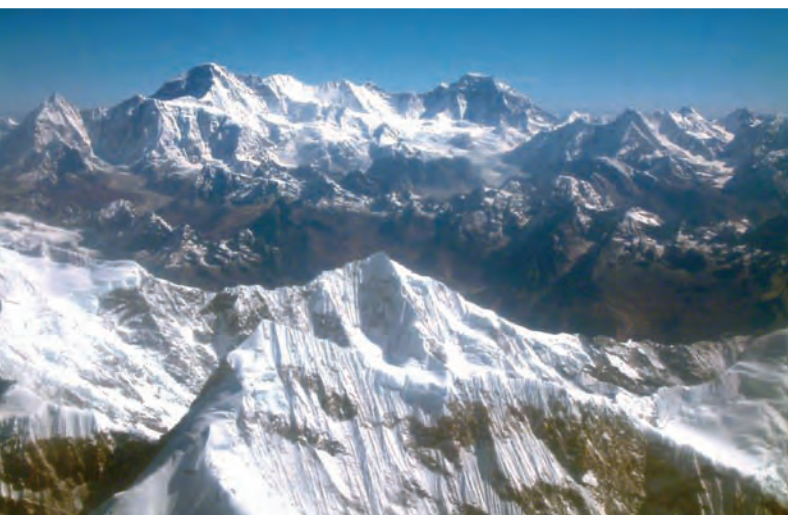
Asia and the Pacific is also a culturally, socially and historically diverse region. The region was home to some of the major civilizations in the world from 5000 BC to 1800 BC, various empires, dynasties and kingdoms. There was a long interaction of cultures, goods and people between East and West through the Silk Roads and seaborne trade. Some countries in the region experienced the history of colonization by European and American powers, which influenced local cultures and modes of living, whereas other countries remained independent. Asia and the Pacific also saw a number of wars including the Second World War, which left scars and lessons for future generations. The region encompasses four major religions – Buddhism, Christianity, Hinduism and Islam – along with other religions and indigenous belief systems. People in the region have had different modes of living, from nomadism to settlement.

Such rich geographical, geological, biological, cultural, social and historical diversity is reflected in natural and cultural



heritage, captured within the existing World Heritage network.

Mountainous regions with snow-covered peaks, glaciers, deeply eroded valleys, rivers and lakes are numerous. Sagarmatha National Park (Nepal) has the world's highest mountain, Mount Everest, just one of more than seven peaks in the park above 7,000 m, and mountains are a central feature of Nanda Devi and Valley of Flowers National Parks in the high Himalayas of India, Kinabalu Park (Malaysia) and in several properties in China, including Huanglong Scenic and Historic Interest Area, Jiuzhaigou Valley Scenic and Historic Interest Area, and Three Parallel Rivers of Yunnan Protected Areas. Indonesia's Lorentz National Park in Papua incorporates a full transect from snow-capped peaks to tropical coastline. Volcanoes are well represented by New Zealand's Tongariro National Park and Korea's Jeju Volcanic Island and Lava Tubes, while Indonesia has the volcanic islands of Komodo National Park and in Ujung Kulon National Park there is the volcanic centre of Krakatau, the site of a catastrophic eruption 1,500 years ago. Spectacular limestone cave and karst terrain occurs in two Vietnamese sites – Ha Long Bay and Phong Nha-Ke Bang National Park, as well as in Gunung Mulu National Park (Malaysia), which



has one of the largest caves in the world, the Puerto-Princesa Subterranean River National Park in the Philippines with an 8.2 km underground river that flows directly into the sea, and in the South China Karst whose assemblage of pinnacles, cones, sinkholes and caves has been likened to a 'stone forest'. Hydrological features – rivers, lakes, waterfalls and wetlands – are a feature of Jiuzhaigou Valley Scenic and Historic Interest Area, Huanglong Scenic and Historic Interest Area, Wulingyuan Scenic and Historic Interest Area (China); Kaziranga National Park and Nanda Devi and Valley of Flowers National Parks (India); Chitwan National Park (Nepal); and Saryarka – Steppe and Lakes of Northern Kazakhstan (Kazakhstan), among others. Coastal ecosystems are outstandingly represented in the tidal Sundarbans shared by India and Bangladesh, in the island realm of Komodo National Park (Indonesia). Coral reef systems are superbly displayed in the Great Barrier Reef of Australia, the largest coral barrier reef system on Earth, and the many coral islands and atolls of the Phoenix Islands in the Pacific, along with the raised coral atoll of East Rennell in the Solomon Islands. New Zealand and Australia both have sub-Antarctic island groups of World Heritage status. Tubbatha Reefs Natural Park in the Philippines, which has an atoll reef and almost 400 species of coral, is one of many in the region protecting marine environments and biota.

The geodiversity in the region is paralleled by a rich biodiversity. Some properties are global hotspots or centres of biological diversity, their biota being a combination of several different geo-biographical realms. For example, Uvs Nuur Basin (Mongolia and the Russian Federation) reflects the conjunction of Siberian and Central Asian flora, Three Parallel Rivers of Yunnan Protected Areas is at the epicentre of China's biodiversity with three realms represented – East Asian, South-East Asian and Tibetan, and Kinabalu Park (Malaysia) has wide-ranging habitats representing four bio-realms. Globally significant centres of major vegetation types are found in some properties – Central Asian steppes and temperate grasslands in Saryarka – Steppe and Lakes of Northern Kazakhstan (Kazakhstan), temperate ecosystems in Three Parallel Rivers of Yunnan Protected Areas (China), primary tropical rainforest of Sinharaja Forest Reserve (Sri Lanka), monsoon tropical forest of Dong Phrayayen-Khao Yai Forest Complex (Thailand), palm forests of Gunung Mulu National Park (Malaysia), and

mangrove forests of the Sundarbans (Bangladesh and India). Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiujin Mountains (China), with some 6,000 species of flora, is considered to be one of the botanically richest areas outside tropical rainforests. Papua New Guinea, with 26 million ha of forest, has the largest extent of forest cover on Earth outside the Amazon and Congo basins. Several properties with great topographical and altitudinal range, such as Lorentz National Park (Indonesia), Uvs Nuur Basin (Mongolia and the Russian Federation), Sagarmatha National Park (Nepal), Three Parallel Rivers of Yunnan Protected Areas (China), and Te Wahipounamu – South West New Zealand (New Zealand) are remarkable for the diversity of ecosystem types contained within them.

Of the region's iconic rare and threatened wildlife species, Komodo National Park (Indonesia) has an endemic population of 6,000 of the world's largest monitor lizard, the Komodo dragon; Manas Wildlife Sanctuary (India) the Indian elephant and rhinoceros and the tiger; Chitwan National Park (Nepal) is one of the last refuges of the Bengal tiger; and Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiujin Mountains (China) are home to about a third of the world's population of the highly endangered panda.

Among Asian properties is an impressive assemblage of many of the world's rare and endangered wildlife species, some on the IUCN Red List, including: snow leopard and clouded leopard, panther, red panda, Asiatic black bear, brown bear, mountain sheep (argali), Saiga antelope, Asiatic ibex, Asiatic wild dog, golden eagle, taikin, Chinese giant salamander and Indian python. In many properties there is a high proportion of endemic species of fauna. Separated from the continents and from their neighbours by vast distances of open water, many island groups in the Pacific are global centres of plant and animal diversity often with high levels of endemism. The Solomon Islands, for example, has some 61 endemic bird species and 17 other restricted species. Marine biodiversity is as rich as it is on land. Several properties protect wetlands and other habitats of critical importance for migratory birds, including Uvs Nuur Basin (Mongolia and the Russian Federation), Saryarka – Steppe and Lakes of Northern Kazakhstan (Kazakhstan) and Keoladeo National Park (India).





Gunung Mulu National Park (Malaysia) and Puerto-Princesa Subterranean River National Park (Philippines) are renowned for their rich cave faunas.

The cultural diversity of Asia and the Pacific reflects the long history that extends over 6,500 years and the vastness of the region spanning over 16,000 km. The heritage sites represent the epitome and creativity of human activities since the Stone Age. There are cultural heritage sites that provide testimony to the early evolution of humankind, such as the Peking Man Site at Zhoukoudian (China) and the Sangiran Early Man Site (Indonesia). The exquisite artistic expressions of our ancestors from prehistoric times are preserved in the petroglyph sites that are scattered across the region: from the Petroglyphs within the Archaeological Landscape of Tamgaly (Kazakhstan), Petroglyphic Complexes of the Mongolian Altai (Mongolia) to the Rock Shelters of Bhimbetka (India) and Kakadu National Park (Australia). The earliest forms of human settlement and agriculture are safeguarded in sites such as the Proto-urban site of Sarazm (Tajikistan), Ban Chiang Archaeological Site (Thailand) and the Kuk Early Agricultural Site (Papua New Guinea).

The ebb and flow of empires intermittently linked and divided the vast settings of the region. The isolation of certain regions greatly contrasted areas that have been on the main historic routes travelled by traders, armies and pilgrims. Such ancient land routes developed across the continent, while the sea routes linked the coastlines and islands. These historic routes have allowed for the dissemination of knowledge and products. The land route known as the Silk Roads linked the North-East Asian cultural sphere, across Central and Western

Asia and on to the Mediterranean. Here great cities thrived such as the Historic Centre of Bukhara and Samarkand – Crossroad of Cultures (Uzbekistan). The maritime routes linked the centres of trade such as the Historic Centre of Macao (China), Melaka and George Town, Historic Cities of the Straits of Malacca (Malaysia), Old Town of Galle and its Fortifications (Sri Lanka) and Hoi An Ancient Town (Viet Nam), which were often influenced by colonial powers.

People and goods were also moved along the rivers and canals, allowing for the great and unique civilizations and cultures to evolve such as along the Indus, the Ganges, the Hwang Ho, the Yangtze Kiang and the Mekong. The testimony of the earliest of urban societies would be the Archaeological Ruins at Moenjodaro (Pakistan). There are ancient cities that have been abandoned over the centuries such as the Proto-urban site of Sarazm (Tajikistan), Taxila (Pakistan) and Fatehpur Sikri (India) and the Historic City of Ayutthaya (Thailand). There are numerous historic urban areas that are still inhabited, even after centuries: Old Town of Lijiang (China), Historic Monuments of Ancient Kyoto (Japan) and Kathmandu Valley (Nepal). Strategic locations for trade and military control led to the construction of grand cities and fortified structures. The Great Wall (China) and its various phases were early attempts to protect an entire empire from invaders. Further examples of fortified cities and castles can be found in such strategic locations as Itchan Kala (Uzbekistan), Hwaseong Fortress (Republic of Korea), Himeji-jo (Japan), the Red Fort (India) and Hoi An (Viet Nam).

Religions have been the source, patrons and inspiration for many outstanding achievements in the creation of cultural





heritage. Religions and philosophies originated in Asia and the Pacific such as Buddhism, Hinduism, Confucianism, Taoism and Shinto and Zoroastrianism, and Islam and Christianity that originally came from other regions have equally provided their great contributions to the life and culture of the region. The history of the establishment and spread of Buddhism is reflected in temples, shrines, places of pilgrimage, grottoes and archaeological sites such as Lumbini, the Birthplace of the Lord Buddha (Nepal), Buddhist Monuments at Sanchi (India), Cultural Landscape and Archaeological Remains of the Bamiyan Valley (Afghanistan), Longmen Grottoes (China), Buddhist Monuments in the Horyu-ji Area (Japan), Angkor (Cambodia) and Borobudur Temple Compounds (Indonesia). Exquisite examples of Hindu temples and shrines can be found in India such as the Khajuraho Group of Monuments, Great Living Chola Temples and Sun Temple, Konârak (India), and as far away as the Prambanan Temple Compounds (Indonesia). Islamic influence on architecture can be found in some of the most superb architectural achievements such as Samarkand – Crossroad of Cultures (Uzbekistan), Mausoleum of Khoja Ahmed Yasawi (Kazakhstan), Soltaniyeh (Islamic Republic of Iran) leading to the masterpiece, the Taj Mahal (India). Regional interpretation of Christianity is reflected in the Baroque Churches of the Philippines.

The early use of technology and natural resources has created landscapes and technological ensembles that are unique and examples of innovation and transfers of skills. Examples of traditional agricultural societies and their impact on their environment are shown by cultural heritage sites such as

Historic Villages of Shirakawa-go and Gokayama (Japan) and Rice Terraces of the Philippine Cordilleras (Philippines). Irrigation was important for the development of certain regions and impressive systems were constructed such as the Shushtar Historical Hydraulic System (Islamic Republic of Iran) and Mount Qingcheng and the Dujiangyan Irrigation System (China). Early industrialization was dependent on mining and quarrying which are preserved in sites such as Iwami Ginzan Silver Mine and its Cultural Landscape (Japan). Industrial development and the transfer of technology is represented by the railway properties in India: Chhatrapati Shivaji Terminus (formerly Victoria Terminus) and the Mountain Railways of India. The modern era is represented by two properties that are closely linked to the destructive powers of nuclear weapons: Hiroshima Peace Memorial (Genbaku Dome) (Japan) and Bikini Atoll Nuclear Test Site (Marshall Islands). Modern architecture is represented by Sydney Opera House (Australia).

Pacific culture is intricately connected to the ocean, which has shaped the identity, ways of living, values, knowledge and practices of Pacific peoples for millennia. The oceanic world has given rise to traditional ways of life that are unique to the region, expressed through outstanding cultural landscapes and seascapes, settlements and monuments, distinctive arts and crafts and an intangible heritage of traditions, knowledge, stories, music and dance. Particularly enriching for World Heritage are the traditional customary heritage management practices reinforcing the inseparable relationship between communities, cultures and environment that underpin sustainable development in the region.



World Heritage Convention in Asia and the Pacific

States Parties

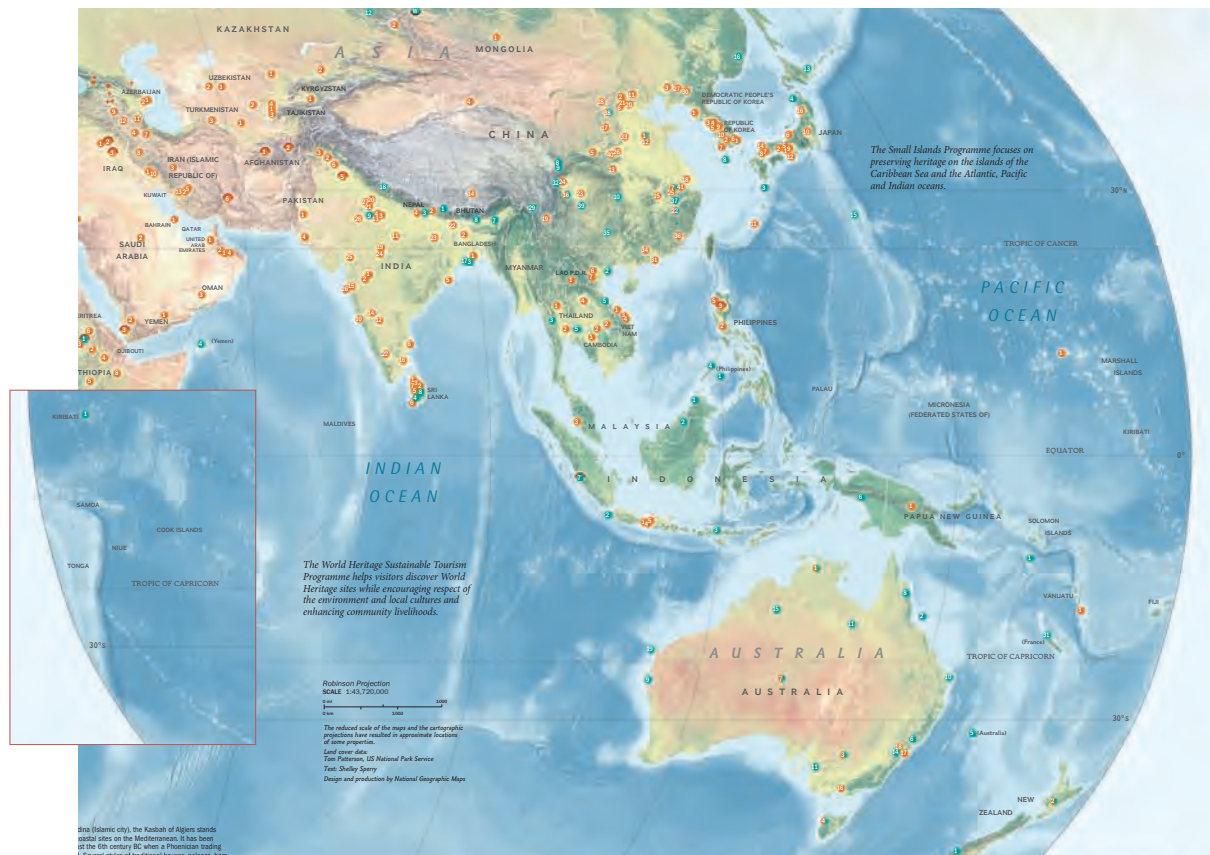
The Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), adopted in 1972, aims at the identification, protection, conservation, presentation and transmission to future

generations of cultural and natural heritage of Outstanding Universal Value. As of July 2012, there are 190 States Parties to the World Heritage Convention, 43 of which are in Asia and the Pacific (Table 1).

Table 1. Number of States Parties and properties by region/subregion as of July 2012

ASIA	
29 States Parties	
West and Central 7 States Parties	Afghanistan (2), Iran, Islamic Republic of (15), Kazakhstan (3), Kyrgyzstan (1), Tajikistan (1), Turkmenistan (3), Uzbekistan (4)
South 7 States Parties	Bangladesh (3), Bhutan (0), India (29), Maldives (0), Nepal (4), Pakistan (6), Sri Lanka (8)
North-East 5 States Parties	China (43), Japan (16), Korea, Democratic People's Republic of (1), Korea, Republic of (10), Mongolia (3)
South-East 10 States Parties	Brunei Darussalam (0), Cambodia (2), Indonesia (8), Lao People's Democratic Republic (2), Malaysia (4), Myanmar (0), Philippines (5), Singapore (0), Thailand (5), Viet Nam (7)
PACIFIC	
14 States Parties	
Australia (19), New Zealand (3)	
Pacific Island States 12 States Parties	Cook Islands (0), Fiji (0), Kiribati (1), Marshall Islands (1), Micronesia, Federated States of (0), Niue (0), Palau (1), Papua New Guinea (1), Samoa (0), Solomon Islands (1), Tonga (0), Vanuatu (1)

() Number of World Heritage properties.



The World Heritage Convention entered into force on 17 December 1975 with Australia and the Islamic Republic of Iran among the first 20 States Parties to ratify or accept the Convention. The number of States Parties in the region progressively increased in the 1980s and 1990s. Between 1992 and 1995, after the dissolution of the Soviet Union, the five Central Asian countries adhered to the Convention. The Pacific States Parties are relatively new to the Convention, with

the exception of Australia and New Zealand. The first country from the Pacific Island States to ratify the Convention was Fiji in 1992, followed by the Solomon Islands in 1992. Of the 14 States Parties in the Pacific, 9 joined the Convention only after 2000. The most recent member of the Convention in the region is Singapore, which joined in 2012 (Table 2). Nauru, Timor-Leste, Tokelau and Tuvalu are the only states in the region that have not ratified the World Heritage Convention.

Table 2. Year of ratification by States Parties in Asia and the Pacific

YEAR OF RATIFICATION	STATES PARTIES
1973	–
1974	Australia
1975	Iran, Islamic Republic of
1976	Pakistan
1977	India
1978	Nepal
1979	Afghanistan
1980	Sri Lanka
1981	–
1982	–
1983	Bangladesh
1984	New Zealand
1985	Philippines
1986	China; Maldives
1987	Lao People's Democratic Republic; Thailand; Viet Nam
1988	Korea, Republic of; Malaysia
1989	Indonesia
1990	Fiji; Mongolia
1991	Cambodia
1992	Japan; Solomon Islands; Tajikistan
1993	Uzbekistan
1994	Kazakhstan; Myanmar; Turkmenistan
1995	Kyrgyzstan
1996	–
1997	Papua New Guinea
1998	Korea, Democratic People's Republic of
1999	–
2000	Kiribati
2001	Bhutan; Niue; Samoa
2002	Marshall Islands; Micronesia, Federated States of; Palau; Vanuatu
2003	–
2004	Tonga
2005	–
2006	–
2007	–
2008	–
2009	Cook Islands
2010	–
2011	Brunei Darussalam
2012	Singapore

World Heritage Committee

The World Heritage Committee is responsible for the implementation of the World Heritage Convention and for administering the World Heritage Fund. The Committee consists of 21 States Parties and it meets once a year. The term of office of Committee members is six years, but in order to ensure equitable representation and rotation, States Parties are invited to voluntarily reduce their term of office from six to four years and not to seek consecutive terms of office. Among 43 States Parties in Asia and the Pacific, 14 have served as a member of the World Heritage Committee (Table 3). Of these, Australia, China, India, Japan, Republic of Korea, Pakistan and

Thailand has each served more than 10 years in total, several of them re-joining the Committee regularly. The States Parties that have served as Committee members are mostly from North-East and South-East Asia. Pacific Island States have not yet been Committee members. The General Assembly at its 13th session in 2001 decided that one seat of the Committee should be reserved for States Parties with no property on the World Heritage List (General Assembly Rules of Procedure Rule 14.1 (c)). So far, no such States Parties of Asia and the Pacific have been elected to this seat.

Table 3. Membership of World Heritage Committee by States Parties in Asia and the Pacific

STATES PARTIES	DATE	YEARS OF MANDATES TO THE WORLD HERITAGE COMMITTEE	TOTAL YEARS
Afghanistan	20/03/1979		
Australia	22/08/1974	1976–1983; 1983–1989; 1995–2001; 2007–2011	21
Bangladesh	03/08/1983		
Bhutan	17/10/2001		
Brunei Darussalam	12/08/2011		
Cambodia	28/11/1991	2009–2013	4
China	1985/12/12	1991–1997; 1999–2005; 2007–2011	16
Cook Islands	16/01/2009		
Fiji	21/11/1990		
India	14/11/1977	1985–1991; 2001–2007; 2011–2015	16
Indonesia	06/07/1989	1989–1995	6
Iran, Islamic Republic of	26/02/1975	1976–1980	4
Japan	30/06/1992	1993–1999; 2003–2007; 2011–2015	14
Kazakhstan	29/04/1994		
Kiribati	12/05/2000		
Korea, Democratic People's Republic of	21/07/1998		
Korea, Republic of	14/09/1988	1997–2003; 2005–2009	10
Kyrgyzstan	03/07/1995		
Lao People's Democratic Republic	20/03/1987		
Malaysia	07/12/1988	2011–2015	4
Maldives	22/05/1986		
Marshall Islands	24/04/2002		
Micronesia, Federated States of	22/07/2002		
Mongolia	02/02/1990		
Myanmar	29/04/1994		
Nepal	20/06/1978		
New Zealand	22/11/1984	2003–2007	4
Niue	23/01/2001		
Pakistan	23/07/1976	1978–1985; 1987–1993	13
Palau	11/06/2002		
Papua New Guinea	28/07/1997		
Philippines	19/09/1985	1991–1997	6
Samoa	28/08/2001		
Singapore	19/06/2012		
Solomon Islands	10/06/1992		
Sri Lanka	06/06/1980	1983–1989	6
Tajikistan	28/08/1992		
Thailand	17/09/1987	1989–1995; 1997–2003; 2009–2013	16
Tonga	30/04/2004		
Turkmenistan	30/09/1994		
Uzbekistan	13/01/1993		
Vanuatu	13/06/2002		
Viet Nam	19/10/1987		

World Heritage Fund and International Assistance

The World Heritage Fund is a trust fund established by the Convention, which consists of compulsory and voluntary contributions made by States Parties and other private donations. The Fund provides about US\$4 million annually to support activities relating to the implementation of the Convention. International Assistance is funding provided to States Parties to help them to protect their cultural and natural heritage on the World Heritage List or potentially suitable for inscription. It is primarily sourced from the World Heritage Fund as a supplement to national efforts when adequate resources cannot be secured at national level. Priority is given to the most threatened properties. There are three types of assistance: emergency, preparatory, and conservation and management. Emergency assistance is to address threats facing properties on the World Heritage List which have suffered or are in imminent danger of severe damage due to sudden, unexpected phenomena. It can be requested to undertake emergency measures or to draw up an emergency plan for the property. Preparatory assistance is for activities relating to the preparation of Tentative Lists and nominations. Conservation and management assistance includes assistance for training and research, technical cooperation, and promotion and education, and it can be requested, among other reasons, for training of staff, scientific research and provision of experts. States Parties in arrears of payment of their contributions to the World Heritage Fund are not eligible for International Assistance with the exception of emergency assistance.

In Asia and the Pacific, a total of US\$8,780,889 has been granted to the States Parties as International Assistance since 1979,³ 60% of which is for conservation and management. Emergency assistance constitutes 18% of the total amount given to the region. Angkor (Cambodia), Manas Wildlife Sanctuary (India), Bam and its Cultural Landscape (Islamic Republic of Iran), Fort and Shalamar Gardens in Lahore (Pakistan), and Rice Terraces of the Philippine Cordilleras (Philippines) received emergency assistance while inscribed

³ The approval of International Assistance started in 1978 and requests from Asia and the Pacific were first approved in 1979.

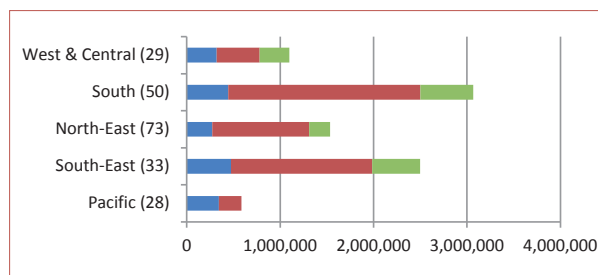


Figure 1. Distribution of International Assistance in Asia and the Pacific (in US\$). () Number of World Heritage properties.

on the List of World Heritage in Danger. Around one-quarter of the emergency assistance (US\$380,000) was granted to manage post-disaster situations such as floods and earthquakes. Minaret and Archaeological Remains of Jam (Afghanistan) received the emergency assistance before being inscribed on the World Heritage List.

In Asia and the Pacific, South Asia received most International Assistance among the subregions (35% of the International Assistance granted in the region) followed by South-East Asia (28%) (Figure 1). North-East Asia has the highest number of the properties on the World Heritage List in the region, but received 17% of the International Assistance. In those three subregions, conservation assistance has been given most. In West and Central Asia, however, three types of assistance have been granted fairly equally. In the Pacific, the preparatory assistance weighs more than conservation assistance. This reflects the fact that there are only six Pacific Island States among twelve that have properties on the World Heritage List. The amount granted to each State Party also varies (Figure 2). Although it is difficult to generalize whether or not the distribution is balanced considering the different numbers of properties, emergency situations, and the economic situation of each State Party, it is important to note that the *Operational Guidelines* suggest that the likelihood whether International Assistance will have a catalytic and multiplier effect ('seed money') and promote financial and technical contributions from other sources should be considered when granting the assistance.

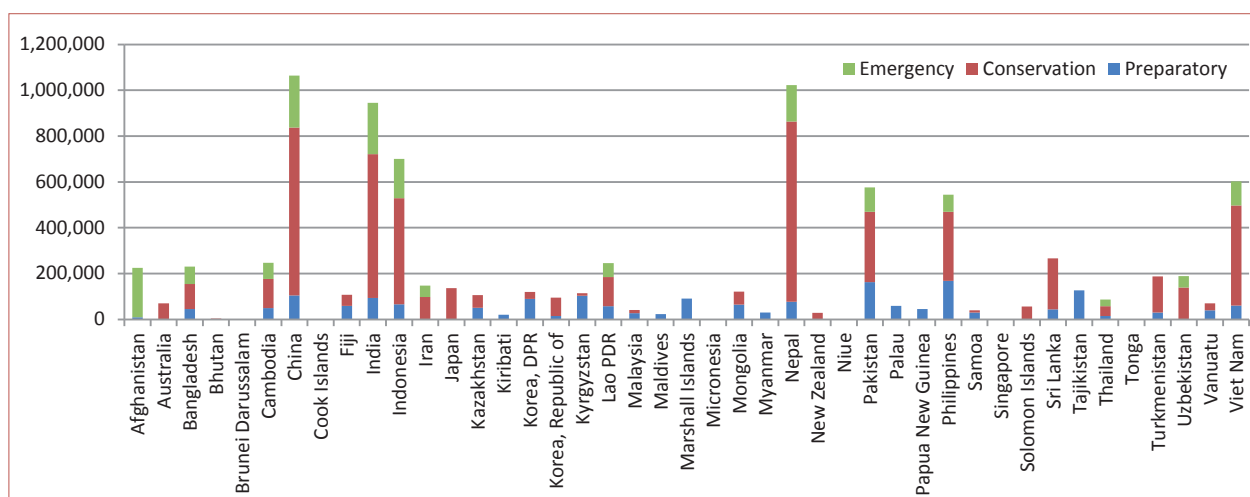


Figure 2. International Assistance by State Party (in US\$).

World Heritage properties in Asia and the Pacific

Outstanding Universal Value

The World Heritage Convention aims at the identification, protection, conservation, presentation and transmission to future generations of cultural and natural heritage of Outstanding Universal Value. Outstanding Universal Value means 'cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity' (*Operational Guidelines*, Paragraph 49). Outstanding Universal Value is, therefore, the key reference for the effective protection and management of the World Heritage properties. Qualifying standards for this are set by a series of ten criteria covering cultural and natural values (see page 21).

Outstanding Universal Value is expressed in World Heritage properties through attributes. Attributes can be tangible or intangible. Attributes that can convey Outstanding Universal Value include form and design, materials and substance, use and function, traditions, techniques and management system, location and setting, language and other forms of intangible heritage, and spirit and feeling (*Operational Guidelines*, Paragraph 82). For natural properties, attributes are sometimes called 'features' which include visual or aesthetic significance, scale of the extent of physical features or natural habitats, intactness of physical or ecological processes, naturalness and

intactness of natural systems, viability of populations of rare species and rarity (*Preparing World Heritage Nominations*).

To be deemed of Outstanding Universal Value, a property must also meet the conditions of integrity and/or authenticity and must have an adequate protection and management system to ensure its safeguarding (*Operational Guidelines*, Paragraph 78).

Integrity is a measure of wholeness and intactness of the natural and cultural heritage and its attributes. Wholeness means that the property includes all elements necessary to express its Outstanding Universal Value, and intactness means that a property is of adequate size to ensure the complete representation of the features and processes which convey the property's significance. The conditions of integrity are also examined against the extent to which the property suffers from adverse effects of development and/or neglect.

Authenticity relates to the ability of the attributes of a property to express adequately its Outstanding Universal Value truthfully and credibly. Authenticity is considered only for cultural and mixed properties. A property is understood to meet the conditions of authenticity if their cultural values are truthfully and credibly expressed through a variety of attributes.

World Heritage List

World Heritage Convention

Article 11

2. On the basis of the inventories submitted by States in accordance with paragraph 1, the Committee shall establish, keep up to date and publish, under the title of 'World Heritage List', a list of properties forming part of the cultural heritage and natural heritage, as defined in Articles 1 and 2 of this Convention, which it considers as having outstanding universal value in terms of such criteria as it shall have established. An updated list shall be distributed at least every two years.

The World Heritage List is a list of cultural and natural properties which the World Heritage Committee considers as having Outstanding Universal Value. As of 2012, there are 962 listed properties, of which 213 (22.1%) are located in 32 States Parties in Asia and the Pacific. These 213 properties consist of 148 cultural (69.5%), 55 natural (25.8%) and 10 mixed (4.7%) properties. The World Heritage Committee considers a property as having Outstanding Universal Value if the property meets one or more of the criteria listed in Paragraph 77 of the *Operational Guidelines*. These criteria have been applied as follows in properties in Asia and the Pacific:



Criterion (i) represent a masterpiece of human creative genius

This criterion has been used for 54 properties out of 148 cultural and 10 mixed properties in the region (34.2%). Sydney Opera House (Australia), Temple of Preah Vihear (Cambodia) and Taj Mahal (India) are inscribed under only this criterion.

Criterion (ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design

This criterion has been used for 87 properties (55.1%). Royal Exhibition Building and Carlton Gardens (Australia) and Masjid-e Jāmē of Isfahan (Islamic Republic of Iran) are inscribed under only this criterion.

Criterion (iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared

This criterion has been applied for 104 properties (65.8%), including 7 properties which are inscribed under only this criterion – Agra Fort (India), Petroglyphs within the Archaeological Landscape (Kazakhstan), Gochang, Hwasun and Ganghwa Dolmen Sites (Republic of Korea), Petroglyphic Complexes of the Mongolian Altai (Mongolia), Historical Monuments at Makli, Thatta (Pakistan), Bang Chiang Archaeological Site (Thailand), and Historic City of Ayutthaya (Thailand).

Criterion (iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

This criterion has been used for 90 properties (57.0%), including Historic Mosque City of Bagerhat (Bangladesh), Qutb Minar and its Monuments, Delhi (India), Jongmyo Shrine (Republic of Korea), Buddhist Ruins of Takht-i-Bahi and Neighbouring City Remains at Sahr-i-Bahlol (Pakistan), Old Town of Galle and its Fortifications (Sri Lanka) and Complex of Hué Monuments (Viet Nam) which are inscribed under only this criterion.

Criterion (v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change

This criterion has been used for 22 properties (13.9%) such as Rice Terraces of the Philippines Cordilleras (Philippines) and Chief Roi Mata's Domain (Vanuatu). There are no properties in the region which are inscribed under only this criterion.

Criterion (vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria)

This criterion has been applied for 66 properties (41.8%). The only property that is inscribed under only this criterion in the region is Hiroshima Peace Memorial (Genbaku Dome) (Japan). Out of 10 mixed properties, 7 use this criterion.

Criterion (vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance

This criterion has been used for 39 properties out of 55 natural and 10 mixed properties in the region (60.0%). There are 5 properties inscribed under only this criterion – Huanglong Scenic and Historic Interest Area (China), Jiuzhaigou Valley Scenic and Historic Interest Area (China), Mount Sanqingshan National Park (China), Wulingyuan Scenic and Historic Interest Area (China) and Sagarmatha National Park (Nepal). Out of 10 properties, 7 use this criterion.

Criterion (viii) be outstanding examples representing major stages of Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features

This criterion has been applied for 23 properties (35.4%), including Chengjiang Fossil Site (China) and Phong Nha-Ke Bang National Park (Viet Nam) which are inscribed under only this criterion.

Criterion (ix) be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals

This criterion has been used for 36 properties (55.4%), including Ogasawara Islands (Japan), Shirakami-Sanchi (Japan), and East Rennell (Solomon Islands), which are inscribed under only this criterion.

Criterion (x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation

This criterion has been applied for 40 properties (61.5%), including 3 properties inscribed under only this criterion, which are Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiujin Mountains (China), Keoladeo National Park (India), and Dong Phrayayen-Khao Yai Forest Complex (Thailand).



List of World Heritage in Danger

World Heritage Convention

Article 11

4. The Committee shall establish, keep up to date and publish, whenever circumstances shall so require, under the title of 'List of World Heritage in Danger', a list of the property appearing in the World Heritage List for the conservation of which major operations are necessary and for which assistance has been requested under this Convention. ... The list may include only such property forming part of the cultural and natural heritage as is threatened by serious and specific dangers, such as the threat of disappearance caused by accelerated deterioration, large-scale public or private projects or rapid urban or tourist development projects; destruction caused by changes in the use or ownership of the land; major alterations due to unknown causes; abandonment for any reason whatsoever; the outbreak or the threat of an armed conflict; calamities and cataclysms; serious fires, earthquakes, landslides; volcanic eruptions; changes in water level, floods and tidal waves. ...

The List of World Heritage in Danger is a list of properties that are on the World Heritage List, which are threatened by serious and specific danger. Serious and specific dangers would include threat of disappearance caused by accelerated deterioration, large-scale public or private projects or rapid urban or tourist development projects, destruction or major alterations, abandonment, outbreak of an armed conflict, and various disasters such as earthquakes, landslides and volcanic eruptions. As of July 2012, there are four properties in Asia and the Pacific inscribed on the List of World Heritage in Danger – Minaret and Archaeological Remains of Jam (Afghanistan), Cultural Landscape and Archaeological Remains of the Bamiyan Valley (Afghanistan), Tropical Rain Forest Heritage of Sumatra (Indonesia), and Bam and its Cultural Landscape (Islamic Republic of Iran). Threats for which these properties were inscribed on the List of World Heritage in Danger are tourism, unfavourable human activities (civil unrest, looting, illegal excavation), severe damage caused by natural disasters (earthquake), and developmental pressures. Lack of a management plan/system is also commonly identified

as a factor affecting these properties. During the 40 years of history of the World Heritage Convention, 10 properties in Asia and the Pacific were inscribed on the List of World Heritage in Danger including four properties that are currently on the List. Angkor (Cambodia) was inscribed on the List of World Heritage in Danger at the same time as inscription on the World Heritage List because of its political situation at that time impacting the management and protection of the property, as well as some urgent conservation problems including establishment of monitoring and coordination of international conservation efforts. It was removed from the List of World Heritage in Danger 12 years later in 2004. Group of Monuments at Hampi (India) was inscribed on the List of World Heritage in Danger from 1999 to 2006 in relation to the partial construction of two cable-suspended bridges within the protected archaeological areas which impacted the integrity and authenticity of the property, Manas Wildlife Sanctuary (India) for 19 years in relation to encroachment by militants that had caused considerable damage to the property, and the Kathmandu Valley (Nepal) for five years in relation to the loss of traditional elements of heritage as well as uncontrolled development that affected the integrity and authenticity of the property. Fort and Shalamar Gardens in Lahore (Pakistan) was inscribed on the List of World Heritage in Danger in 2000 due to the damage to the external walls and demolition of hydraulic works of the Shalamar Gardens and the serious degradation of the historic monuments and garden complex, while the Rice Terraces of the Philippine Cordilleras (Philippines) was inscribed in 2001 for the abandonment of the terraces, unregulated development, unaddressed tourism needs, and lack of an effective management system. Both properties were removed from the List of World Heritage in Danger in 2012.

When a property is inscribed on the List of World Heritage in Danger, the World Heritage Committee develops, as far as possible in consultation with the State Party concerned, a programme of corrective measures and the state of conservation of those properties are annually reviewed by the Committee. The Committee also allocates a significant portion of the World Heritage Fund to assistance for World Heritage properties on the List of World Heritage in Danger, and priority is given to these properties when examining International Assistance requests.



Reactive Monitoring on the state of conservation of World Heritage properties

Operational Guidelines

169. Reactive Monitoring is the reporting by the Secretariat, other sectors of UNESCO and the Advisory Bodies to the Committee on the state of conservation of specific World Heritage properties that are under threat. ...

Reactive Monitoring is a process by which the state of conservation of properties that are under threat is reported to the World Heritage Committee. Through this process, specific reports on the state of conservation of properties are submitted by States Parties. Each year, the state of conservation of around 20–30 properties in Asia and the Pacific is examined by the World Heritage Committee. In 2012, the state of conservation of 26 properties (11 natural, 14 cultural, 1 mixed) was discussed. The issue most commonly shared by these properties is lack or inadequacy of management plans/systems (58.3%). The second commonly shared issue is infrastructure development (54.2%) followed by unfavourable activities such as illegal logging, poaching and encroachment (29.2%). The

trend was similar in 2011, when the state of conservation of 39 properties (13 natural and 26 cultural) was discussed. The factor most commonly shared by these properties was lack or inadequacy of the management plan/system (61.5%) followed by infrastructure development (56.4%) and tourism (26%). There were four properties which were affected by disasters such as a flood and an earthquake. There are 25 properties inscribed before 2000, the state of conservation of which was never discussed by the World Heritage Committee. Some of the properties were inscribed in the 1970s and early 1980s. However, 22 properties inscribed between 1979 and 1994 in Asia and the Pacific all participated in the first cycle of Periodic Reporting, through which the state of conservation was noted. All 198 properties inscribed between 1978 and 2010 in Asia and the Pacific participated in the second cycle of Periodic Reporting. The second cycle gave 68 properties in the region the first opportunity to report on their state of conservation.

Further details on the state of conservation of the World Heritage properties in Asia and the Pacific are given in Chapter 3.

Reinforced Monitoring Mechanism

The Reinforced Monitoring Mechanism is designed to assist properties only in exceptional and specific cases where the Committee fears the loss of Outstanding Universal Value in the short term. The mechanism can be activated by the World Heritage Committee or by the Director-General of UNESCO in the period between two sessions of the Committee if information is received about critical issues in implementing a decision of the Committee.

This facility, which was introduced by the World Heritage Committee at its 31st session in 2007, has been applied to two properties in Asia and the Pacific – Temple of Preah Vihear (Cambodia, 2008 – present) and Samarkand – Crossroad of Cultures (Uzbekistan, 2008). Temple of Preah Vihear was the first case where the Reinforced Monitoring Mechanism was applied by the Director-General outside a Committee session.



Periodic Reporting

World Heritage Convention

Article 29

1. The States Parties to this Convention shall, in the reports which they submit to the General Conference of the United Nations Educational, Scientific and Cultural Organization on dates and in a manner to be determined by it, give information on the legislative and administrative provisions which they have adopted and other action which they have taken for the application of this Convention, together with details of the experience acquired in this field.
2. These reports shall be brought to the attention of the World Heritage Committee.
3. The Committee shall submit a report on its activities at each of the ordinary sessions of the General Conference of the United Nations Educational, Scientific and Cultural Organization.

- (a) To provide an assessment of the application of the World Heritage Convention by the State Party.
- (b) To provide an assessment as to whether the Outstanding Universal Value of the properties inscribed on the World Heritage List is being maintained over time.
- (c) To provide updated information about the World Heritage properties to record the changing circumstances and state of conservation of the properties.
- (d) To provide a mechanism for regional cooperation and exchange of information and experiences among States Parties concerning the implementation of the Convention and World Heritage conservation.

The Periodic Reporting exercise takes place in a six-year cycle per region.

The format of periodic reports by the States Parties consists of two sections – Section I on the implementation of the World Heritage Convention at national level including the legislative and administrative provisions which States Parties have adopted as well as other actions that they have taken for the application of the Convention; and Section II on the state of conservation of World Heritage properties located in the territories of the States Parties concerned.

Periodic Reporting is a process whereby those countries that have World Heritage properties within their territory assess and report on the status of protection and management of those properties to the World Heritage Committee.

The four main purposes of Periodic Reporting as stated in Paragraph 201 of the *Operational Guidelines* are:

Once the reports are submitted by the States Parties, the World Heritage Centre consolidates national reports into a Periodic Report for the region, which is submitted to the World Heritage Committee for review.

First cycle of Periodic Reporting in Asia and the Pacific

Asia and the Pacific was the third region to submit a Periodic Report, after the Arab States and Africa in 2003. Section I concerned 33 States Parties to the Convention at that time, and Section II covered 88 properties (55 cultural, 26 natural, 7 mixed) inscribed up to and including 1994 located in 16 States Parties.

Report as well as regional and subregional recommendations were published in 2004 (*World Heritage Paper Series*, No. 12).

The Periodic Report of the first cycle of Periodic Reporting for Asia and the Pacific was submitted to the World Heritage Committee at its 27th session in 2003 (UNESCO, 2003; WHC-03/27.COM/6ARev). Subsequently, two subregional programmes, Action-Asia 2003–2009 and World Heritage – Pacific 2009, were adopted by the World Heritage Committee in 2003 to strengthen the implementation of the World Heritage Convention and to enhance the conservation process at World Heritage properties in the region (<http://whc.unesco.org/archive/2003/whc03-27com-20be.pdf>). The Periodic

The subregional programmes were focused on the following objectives: (a) capacity-building in the preparation of nomination files and in the site management planning; (b) poverty alleviation and community participation through the preservation of heritage; (c) thematic studies for a more representative World Heritage List; and (d) dissemination of information on World Heritage in the region. In addition, in order to facilitate the implementation of Action-Asia 2003–2009, a series of prioritized action plans was developed by the States Parties at subregional level for South, Central, and North-East and South-East Asia. As a result, a number of Tentative Lists were updated, thematic studies were carried out, and some projects on the preparation of serial transboundary nominations have been initiated.

Second cycle of Periodic Reporting in Asia and the Pacific

Background

Following the completion of the first cycle of Periodic Reporting for all regions (2000–2006), and a two-year Periodic Reporting Reflection Year that followed to reflect on the first cycle and to

develop the strategic direction of the second cycle, the World Heritage Committee decided that the second cycle of Periodic Reporting for Asia and the Pacific would be launched in 2010.

This time, in parallel, the World Heritage Committee requested all States Parties to carry out two other major tasks. One is to prepare retrospective Statements of Outstanding Universal Value for properties in their territory in case statements did not exist according to the current format, and the other is to provide cartographic information for Retrospective Inventory in case the files contain some gaps. The preparation of Statements of Outstanding Universal Value was important in the sense that the Outstanding Universal Value, for which a property was inscribed on the World Heritage List and which should be safeguarded over time, is clearly indicated in a statement. Statements of Outstanding Universal Value also specify the conditions of integrity, authenticity, and the requirements for

Scope

The second cycle of Periodic Reporting covered the following elements:

- Preparation of the draft retrospective **Statements of Outstanding Universal Value (SOUVs)** of the World Heritage properties inscribed from 1978 to 2006;
- Preparation of the responses to the **Periodic Reporting online questionnaire**, which consists of Section I (Implementation of the World Heritage Convention at national level) for all the States Parties that ratified the Convention by 2010 and Section II (State of conservation of each World Heritage property) for the World Heritage properties inscribed from 1978 to 2010; and

Outcome

The following was achieved by the States Parties of Asia and the Pacific:

- Of the 166 draft retrospective Statements of Outstanding Universal Value, **all 166 SOUVs** were submitted, of which **165 SOUVs** were considered as complete.
- Of the 41 States Parties, **all 41 States Parties** submitted the Periodic Reporting questionnaire Section I; of the 198 properties, **all 198 properties** submitted Section II.
- Of the 96 properties, **68 properties** submitted cartographic information for Retrospective Inventory.

All the submitted Statements of Outstanding Universal Value were reviewed by the Advisory Bodies, and **67** of them were adopted by the World Heritage Committee in 2012. Other SOUVs are currently under further review and discussion between the States Parties concerned and the Advisory Bodies.

The cartographic information submitted for Retrospective Inventory was checked by the World Heritage Centre and the information from **30** properties which met the requirements was submitted to and adopted by the World Heritage Committee in 2012.

The responses to the Periodic Reporting online questionnaires submitted by all the States Parties and the World Heritage

protection and management in order to sustain Outstanding Universal Value in the long term. Cartographic information is also essential for the clarification of boundaries and buffer zones of properties, whether or not they have buffer zones, and their adequacy to safeguard the Outstanding Universal Value of the properties.

The World Heritage Committee launched a second cycle of Periodic Reporting for Asia and the Pacific at its 34th session in 2010 and requested the States Parties in the region to participate in the process. It also requested the World Heritage Centre to submit a final report on the results of this exercise to the World Heritage Committee for examination at its 36th session in 2012.

- Preparation of the requested cartographic information on the World Heritage properties inscribed from 1978 to 1998 for **Retrospective Inventory**.

This means that in Asia and the Pacific,

- **166 properties** were requested to prepare draft retrospective Statements of Outstanding Universal Value;
- **41 States Parties** were requested to answer Section I and 198 properties in 31 States Parties (138 cultural, 51 natural, 9 mixed properties) were requested to answer Section II of the Periodic Reporting online questionnaire; and
- **96 properties** out of 106 properties inscribed from 1978 to 1998, which are located in 19 States Parties, were requested to submit cartographic information for Retrospective Inventory.⁴

properties in the region were compiled into a Periodic Report of Asia and the Pacific. After the submission of the reports by individual States Parties, their representatives gathered in two regional meetings (one for the Pacific in Apia, Samoa, in September 2011 and the other for Asia in Suwon, Republic of Korea, in December 2011) to discuss the outcome and jointly develop Action Plans at regional and subregional levels. As a result, the States Parties of Asia adopted the Suwon Action Plan which outlined the priority actions for Asia and the subregions of Asia. In the case of the Pacific, as the Pacific Action Plan 2010–2015 had already been developed before the launching of Periodic Reporting, the States Parties reviewed the existing Action Plan to reorient the efforts to regional priorities identified as a result of the Periodic Reporting exercise. Together with the regional Action Plans, the Periodic Report of Asia and the Pacific was submitted to the World Heritage Committee for examination and adoption at its 36th session in 2012.

The Periodic Report adopted by the World Heritage Committee, which contains the detailed analysis of the responses to the Periodic Reporting questionnaires provided by the States Parties is available online on (<http://whc.unesco.org/archive/2012/whc12-36com-10A-en.pdf>).

⁴ Ten properties already had sufficient cartographic information.

Implementation of the World Heritage Convention

2



Huanglong Scenic and Historic Interest Area, China
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Inventories and Tentative Lists

Inventories

An inventory is a management tool that is very important in the process of the conservation of heritage properties. It is a mechanism for identifying, recording and evaluating properties of significance for conservation. An inventory is usually prepared in the form of a list of heritage properties accompanied by all the important information, attributes and elements, and heritage values of that heritage property. A simple list, however, is of limited use. The inventory becomes more useful when it is combined with a database of detailed information about each of the attributes backed up by the relevant disciplinary research and data. This comprehensive level of research can be used as an important tool for management as it identifies why that property has heritage values, and what attributes those values arise from. For example, it can assist with decisions on the appropriate monitoring, maintenance and restoration of individual attributes. In the absence of other information and records, inventories can be vital for post-disaster recovery and documentation.

Inventories can be prepared at national, regional and local levels. Each inventory can identify properties of national, regional and local significance. In Asia and the Pacific, the preparation of inventories for both cultural and natural properties at national level is reported to be most advanced (Figures 3 and 4). For cultural properties 27 States Parties (65.9%) have either completed or are well advanced in preparing national level inventories. There are 11 States Parties that have begun the process, while two States Parties with no process (Federated States of Micronesia and Solomon Islands) and one State Party did not answer (Lao People's Democratic Republic). A similar situation is found for natural properties, with 25 States Parties (61%) completed or well advanced. Ten States Parties have commenced the process of inventory, whereas six have indicated that there is no process in place (Afghanistan, Federated States of Micronesia, Kyrgyzstan, Maldives, Marshall Islands, Solomon Islands). More than half of the States Parties which report that the process has begun are in the Pacific Island States. Considering that most of these States Parties also reported during the first cycle of Periodic Reporting that the process was ongoing, assistance needs to be provided.



There are no specific standards for the preparation of inventories. The format, content and extent of information for an inventory will depend on the type of heritage being listed and the way in which the inventory will be used as a management tool. Ideally, however, inventories should capture the diversity of cultural and natural heritage in the State Party, and have sufficient information to support the identified heritage values of each property on the list. In that respect, only 16 States Parties (39%) in the region report that their inventories fully capture the diversity, and 19 States Parties (46.3%) say that their inventories capture some diversity. When inventories are developed or revised, the issue of diversity should be further taken into account.

Inventories can be a useful tool for the protection of cultural and natural heritage, which should be actively used. Currently around 60% of the States Parties in the region use inventories for the protection of cultural and natural heritage. Another 20% of the States Parties report that their inventories are sometimes used. The usefulness of inventories also depends on the information available in the inventories. It is therefore recommended that detailed and comprehensive inventories sustained by professional research and data collation are compiled so that they will be a useful tool for the protection and management of cultural and natural heritage.

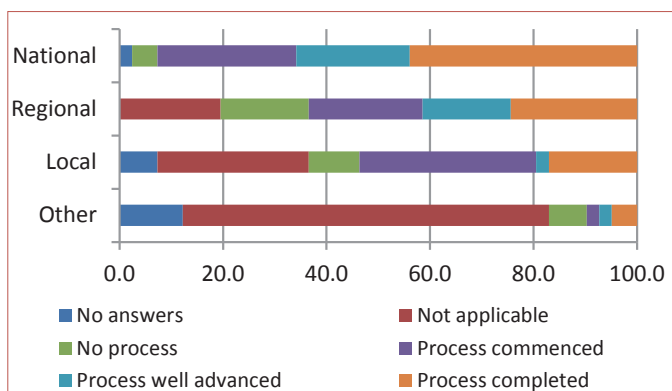


Figure 3. Current status of inventories of cultural heritage.

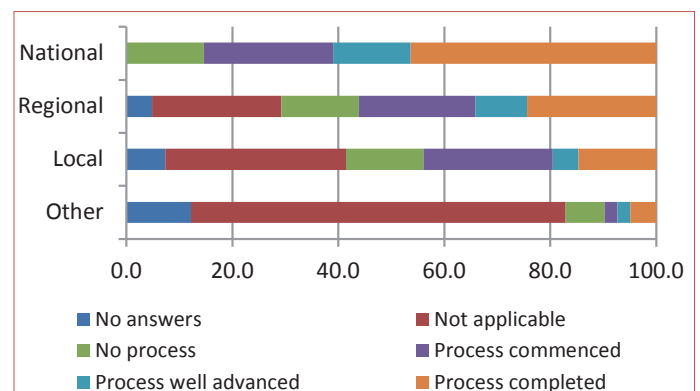


Figure 4. Current status of inventories of natural heritage.

Tentative Lists

Operational Guidelines

62. A Tentative List is an inventory of those properties situated on its territory which each State Party considers suitable for inscription on the World Heritage List. States Parties should therefore include, in their Tentative Lists, the names of those properties which they consider to be cultural and/or natural heritage of Outstanding Universal Value and which they intend to nominate during the following years.

The submission of a Tentative List is the first step that a State Party has to take to prepare for the nomination of a property potentially to be inscribed on the World Heritage List. A Tentative List is a planning and evaluation tool for States Parties, the World Heritage Committee, Advisory Bodies and the World Heritage Centre, providing an indication of future nominations. States Parties need to submit Tentative Lists to the Secretariat, at least one year prior to the submission of any nomination. Of 43 States Parties in Asia and the Pacific, 5 States Parties (Brunei Darussalam, Cook Islands, Kiribati, Niue, Singapore) do not have Tentative Lists.⁵ Since the first cycle of Periodic Reporting, 11 States Parties which previously did not have Tentative Lists have submitted them, 9 of which are the Pacific Island States.

The *Operational Guidelines* encourage the States Parties to re-examine and re-submit their Tentative Lists at least every 10 years. Apart from 11 States Parties that submitted Tentative Lists for the first time, 22 States Parties have updated their Tentative Lists during the last 10 years, while 6 States Parties have not. Frequency of updates varies. Australia, China, India, Indonesia and Japan update their Tentative Lists every two to three years. All the States Parties in the region but four (Kiribati, Marshall Islands, New Zealand, Papua New Guinea) plan to update their Tentative Lists within the next six years.

A Tentative List is an inventory which is specific to the World Heritage Convention. In most cases, however, it is in line with national inventories, and 26 States Parties (63.4%) report frequent use of inventories for the compilation of Tentative Lists.

In Asia and the Pacific, the preparation of Tentative Lists is carried out mainly by national government institutions and experts, with involvement of site managers and National Commissions for UNESCO. Few countries consult with local communities, indigenous peoples, landowners and local industries. The *Operational Guidelines* encourage States Parties to prepare Tentative Lists with the participation of a wide variety of stakeholders (Paragraph 64). The involvement of local communities is particularly important to improve their awareness and sense of stewardship of the properties, which plays an important role in better protection and management.

⁵ Kiribati submitted a Tentative List in 2007, but the property was inscribed on the World Heritage List. There is currently no Tentative List.

Preparation of National Heritage List and the involvement of stakeholders (Australia)

In Australia, nomination of heritage places for the inscription on the National Heritage List, which is the basis of the Tentative List, is open to the public and various stakeholders are consulted. The general public can submit a nomination form to the Department of Sustainability, Environment, Water, Population and Communities. It will then be reviewed by the delegate for the Minister for the Environment, Heritage and the Arts, who decides whether the nomination complies with the regulations. A nomination that passes this test will be assessed by the Australian Heritage Council, which also invites public comments. Owners of the places which might have heritage values are also consulted during this process. Based on these assessments, the Minister will make a final decision.

Since 1994, the World Heritage Committee has been seeking to establish a representative, balanced and credible World Heritage List. The Global Strategy for a Representative, Balanced and Credible World Heritage List was designed to that end to identify and fill major gaps in the World Heritage List, and States Parties are encouraged to participate in its implementation. Various tools are also provided by the World Heritage Centre and the Advisory Bodies to assist States Parties to prepare Tentative Lists and nominations. The *Operational Guidelines* encourage the States Parties in two things in particular: to consult thematic studies carried out by the Advisory Bodies, and to harmonize their Tentative Lists both at regional and thematic levels. Thematic studies are carried out by ICOMOS and IUCN to evaluate properties proposed for inscription on the World Heritage List in their regional, global, or thematic context based on a review of Tentative Lists and other studies. Harmonization of Tentative Lists is a process which allows States Parties to jointly assess their Tentative Lists to review gaps and identify common themes for improved Tentative Lists and nominations.

There is a considerable discrepancy among the subregions on the use of these tools. ICOMOS thematic studies, Global Strategy, and meetings to harmonize Tentative Lists are reported to be the most used. The thematic studies are accessed by a considerable number of States Parties, compared with other global analyses. Meetings to harmonize Tentative Lists are most used in West and Central Asia. This probably reflects the fact that there are some ongoing projects for the preparation of transnational nominations in this subregion such as the Silk Roads and Rock Art in Central Asia. Bhutan, Kiribati, Maldives and Thailand report that no tools are used in the preparation of the Tentative Lists.

ICOMOS thematic studies: <http://www.icomos.org/en/what-we-do/disseminating-knowledge/publication/thematic-studies-for-the-world-heritage-convention>

IUCN thematic studies: http://www.iucn.org/about/work/programmes/wcpa_worldheritage/resources/publications/#thematic

Nominations

Nominations and inscription

While it is the duty of each State Party to do all it can to ensure the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage, it is also the duty of the international community as a whole to cooperate to protect the heritage of Outstanding Universal Value. Identification of properties which possess Outstanding Universal Value by nominating and inscribing them on the World Heritage List is an important step for the conservation and protection of cultural and natural heritage of Outstanding Universal Value.

As of July 2012, there are 213 properties on the World Heritage List from 32 States Parties in Asia and the Pacific. At the time of the first cycle of Periodic Reporting (as of May 2003), there were 140 properties from 22 States Parties. This means that 73 properties (53 cultural, 19 natural and 1 mixed) were inscribed from Asia and the Pacific over the last ten years, and 10 States Parties which previously did not have World Heritage properties now have them. Those States Parties are the Democratic People's Republic of Korea, Kazakhstan, Kiribati, Kyrgyzstan, Marshall Islands, Mongolia, Palau, Papua New Guinea, Tajikistan and Vanuatu.

The World Heritage Committee started to inscribe properties on the World Heritage List in 1978. From Asia and the Pacific, the first five properties were inscribed on the World Heritage List in 1979 (Tchogha Zanbil, Persepolis, and Meidan Emam, Esfahan from the Islamic Republic of Iran, and Sagarmatha National Park and Kathmandu Valley from Nepal). Since then, properties are nominated and inscribed every year. The number of nominations and inscriptions increased as more States Parties joined the Convention. As Figure 5 shows, however, it is not uncommon that the Committee decides to refer back, defer or not inscribe nominated properties.⁶ In earlier years, reasons

for deferral included insufficient documentation and the lack of information as well as the need for better management plans or better delimitations. In recent years, incomplete files are no longer examined by the World Heritage Committee since the completeness check of the nomination files has started to be conducted by the World Heritage Centre.⁷ The system of referral was also introduced for nominations that need additional information before inscription. Some common reasons for deferral in recent years are the need for improvement of integrity of properties, such as redefinition of boundaries to include significant attributes within the boundaries, better protection and management including strengthened protection status and a better management plan/system and its effective implementation, and better research and comparative analysis to further explore and justify the Outstanding Universal Value of properties. Understanding the Outstanding Universal Value, adequate boundaries and buffer zones, protective measures and effective management plans/systems are all important for the conservation and management of World Heritage properties, and it is essential that they are clearly defined when a property is inscribed on the World Heritage List.

Since the completeness check of nomination files by the Secretariat officially started in 2005, the average of 63.8% of the files in Asia and the Pacific (50–86.7% depending on the year) have been considered as complete each year and submitted to the World Heritage Committee. Among the files considered as incomplete since 1998, which include the record from the unofficial incompleteness check before the system was introduced in the *Operational Guidelines*, 36.3% of the files were considered as complete in the second time, 19.7% were again incomplete, and 44% have never been resubmitted. Interestingly, the States Parties whose nomination files have been considered incomplete are not necessarily the

6 The World Heritage Committee may decide to refer back nominations to the States Parties for additional information, or defer nominations for more in-depth assessment or study, or a substantial revision.

7 The completeness check of nomination files by the Secretariat was officially introduced in the *Operational Guidelines* in 2005 but it had started unofficially a few years earlier.

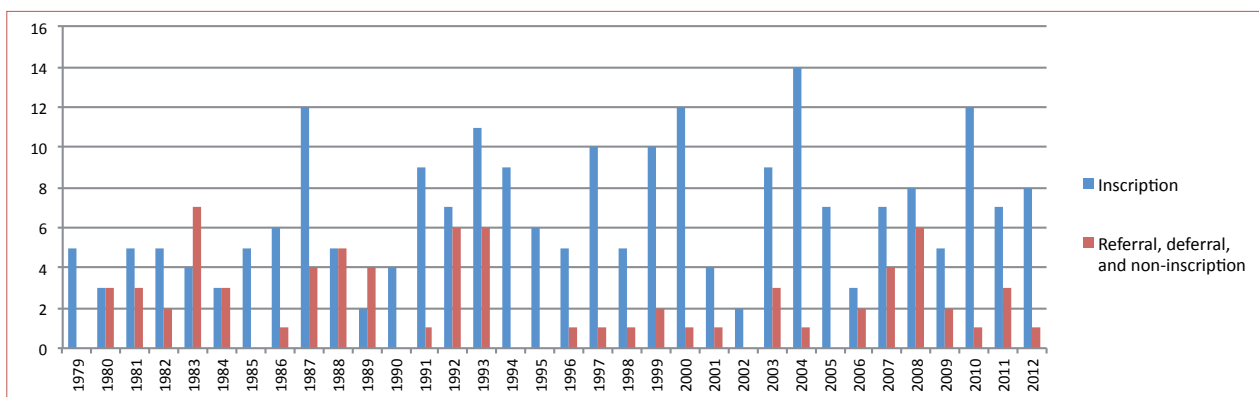


Figure 5. Number of inscription and referral, deferral, non-inscription of properties from Asia and the Pacific per year.

States Parties which had not had a property on the World Heritage List. This suggests that the requirement and the standard of nomination files have become higher than in the past and even States Parties with experience in submitting nomination files also need to understand the most recent requirements for nomination under the latest edition of the *Operational Guidelines*. In order to help States Parties to prepare good nomination files, a UNESCO Resource Manual, *Preparing World Heritage Nominations*, has been published by UNESCO and the Advisory Bodies (available online on <http://whc.unesco.org/en/activities/643/>). The *Operational Guidelines* emphasize the importance of involving various stakeholders such as site managers, local communities and landowners into the World Heritage process. The Resource Manual also indicates the importance of developing a shared understanding of the property and the shared responsibility for its future, for which stakeholders need to be involved from the preparation of a nomination to the management of the property. In Asia and the Pacific, national institutions are well involved in the preparation of nominations (70.7%) with assistance from experts and consultants (61%), site managers (58.5%) and

Transboundary/transnational properties

A transboundary property is a property that is on the territory of two or more States Parties having adjacent borders. A transnational property is a type of serial property whose component parts exist within the territory of different States Parties that are not necessarily contiguous. There are currently 25 transboundary/transnational properties on the World Heritage List, one of which is located between Mongolia and the Russian Federation – Uvs Nuur Basin. The *Operational Guidelines* note that transboundary nominations should be prepared and submitted by States Parties jointly wherever possible, and recommend that the States Parties concerned establish a joint management committee to oversee the management of the whole property. A transboundary/transnational property allows including all the attributes that express Outstanding Universal Value within one property regardless of current political borders, although the harmonization of management of all component parts, the identification of threats and their response, and the coordination of monitoring can be a challenge. The preparation

Benefit of inscription

Inscribing properties on the World Heritage List has benefits within and beyond the scope of heritage conservation. Among various benefits, the top five identified high benefits of World Heritage inscription in the region are: improved presentation of properties; enhanced honour and prestige; a catalyst for wider community appreciation of heritage; increased recognition for tourism and public use; and strengthened protection of properties. This clearly shows that the identification and protection of heritage are important, not only for the strengthened protection and conservation of properties but for wider purposes such as sustainable development through tourism, social and educational value, and identity of the

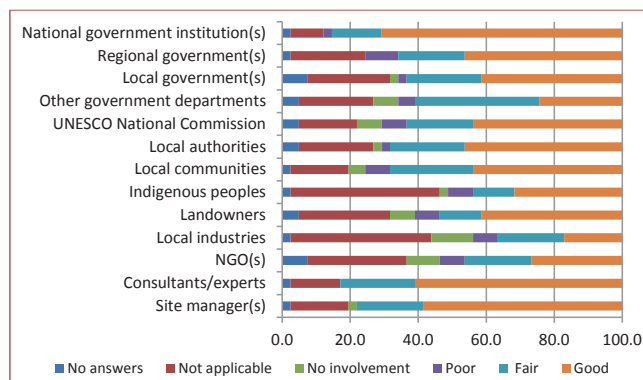


Figure 6. Level of involvement of various stakeholders in preparation of most recent nomination files.

local or regional authorities (46.3%). There is much greater scope in all States Parties for more consultation with local communities, indigenous peoples and landowners (Figure 6). It should be noted that in the Pacific Island States virtually all land is in traditional customary ownership, which makes it even more significant to involve these stakeholders in consultations.

and the management of a transboundary/transnational property can also be a vehicle of international cooperation.

Some States Parties in Asia and the Pacific have started to jointly prepare nominations of transnational serial properties as a result of the first cycle of Periodic Reporting. Current ongoing efforts include a serial transnational nomination of the Silk Roads (Afghanistan, China, India, Islamic Republic of Iran, Japan, Kazakhstan, Kyrgyzstan, Nepal, Republic of Korea, Tajikistan, Turkmenistan, Uzbekistan), a serial nomination of the Rock Art sites in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan), and a transboundary nomination of the Western Tien Shan (Kazakhstan, Kyrgyzstan, Uzbekistan). Each of these nominations is prepared in accordance with the *Operational Guidelines* and with different strategies in order for a property to best reflect its potential Outstanding Universal Value and to be best protected and managed.

community. For example, the Marshall Islands commented that having Bikini Atoll Nuclear Test Site on the World Heritage List is an opportunity for their people to come to terms with their nuclear and colonial heritage, and a potential source of pride, even though it is unlikely that the property brings economic benefit. The significance of tourism and economic development accompanying World Heritage listing of properties is highlighted in many States Parties. Inscription of properties on the World Heritage List could also have some consequent problems, including tourism overuse and inappropriate infrastructure developments such as housing, and hotel development and roads, which need to be further examined.

General policy and services for protection, conservation and presentation

Coordination between comprehensive policies and policies for heritage protection

World Heritage Convention

Article 5

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country:

1. to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;

The States Parties to the World Heritage Convention have, following Article 5 of the Convention, the responsibility to adopt general policies to give the heritage a function in the life of the community and to integrate heritage protection into comprehensive planning programmes. This Article recognizes that safeguarding of heritage is important not just for its cultural, historical and aesthetic value but also for a much wider value including social, economic, environmental, educational and spiritual. Although the Convention does not use the word 'sustainable development', it implies that heritage has an important role to play in it, which can benefit communities. The Budapest Declaration adopted by the World Heritage Committee at its 26th session in 2002 also says that we will 'seek to ensure an appropriate and equitable balance between conservation, sustainability and development, so that World Heritage properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities'. The *Operational Guidelines* clearly endorse this point in Paragraph 6: 'Since the adoption of the Convention in 1972, the international community has embraced the concept of "sustainable development". The protection and conservation of natural and cultural heritage are a significant contribution to sustainable development.' To that end and to ensure the effective and active protection and conservation of cultural and natural heritage, the Convention suggests that each State Party has to have a general policy that gives heritage a function and a meaning for the community and that the issue of heritage protection has to be integrated into comprehensive planning whose scope is not limited to heritage protection.

The World Heritage Convention raises this important point, but in recognition of the individuality of communities and their relationship to their heritage and traditions, it does not specify what a function of heritage could be in the life of the community, and what kind of policies could give the heritage such a function. However, experience proves that heritage contributes to the life of the community and such a function

is reflected in both tangible and intangible aspects. Heritage can be an income-generating vehicle, attracting more tourists and investments, generating employment opportunities for local people. Or protecting heritage could also secure clean water and air, or ensure the sustainable use of land and resources. The construction of traditional buildings has most often adapted to the local conditions over centuries and hence they are generally more resilient against disasters than poorly engineered new buildings, and conserving them adequately eventually contributes to saving people's lives. Heritage also has a symbolic value, which plays an important role in people's identity. This can include traditional practices and uses of places. Safeguarding heritage creates and enhances the feeling of place and the sense of belonging to the community. Having and implementing a policy that acknowledges and ensures these multiple roles of heritage not only contributes to heritage protection but also reinforces other significant community and physical outcomes.

In Asia and the Pacific, only 10 States Parties consider that there are policies that give cultural and natural heritage a function in the life of communities and that they are effectively implemented, while 23 report that there are policies but some deficiencies in implementation.

In Japan, the Law on Promotion of Ecotourism was established in 2008 in order to set a framework for ecotourism around natural heritage and the involvement of local communities in its implementation. Based on this law, local governments organize a consultation meeting for the promotion of ecotourism among various stakeholders including local communities, non-profit organizations and landowners to develop and implement an action plan which indicates how the community should run the ecotourism. By this law and framework, the national government acknowledges the action plan so that the consultation meeting can safeguard natural resources for tourism that are closely linked with the environment, such as flora and fauna habitats and traditional cultures. Similarly, activities are carried out by relevant authorities who are responsible for safeguarding national forests in cooperation with the local communities to promote sustainable tourism by balancing the safeguarding and the utilization of natural heritage.

The One Heritage One Guardian Programme in the Republic of Korea encourages community involvement in heritage conservation. This policy encourages, on the one hand, companies and corporations to participate in heritage conservation through donations, volunteer work and expertise, and on the other hand, individuals and groups to participate in activities as heritage guardians in their local areas. One guardian is designated per heritage and they report on their activities on a website, attend training programmes and

participate in local networks. Outstanding participation in guarding their heritage is awarded by the Cultural Heritage Administration and groups with good performances receive small subsidies to support their activities. Most of the World Heritage properties in the Republic of Korea have guardians from both the company and the individual sectors.

Effective measures for heritage protection require the integration of heritage protection into comprehensive/larger-scale planning programmes. It is a well-known fact that the protection of heritage cannot be achieved by policies and programmes on heritage alone. Care for heritage protection should be taken in the development policy and programmes so that the development will not undermine the conservation and protection of heritage and heritage can also play a role in sustainable development. Disaster risk reduction policy and programmes need to take heritage expertise into consideration so that they can exploit the full potential of their heritage in disaster risk reduction and recovery from the disaster events. A policy on security and police needs to integrate a component of heritage protection so that they can play an important role in taking measures against illegal activities in and around heritage, also so that training and activities do not cause any harm to cultural and natural heritage. It is important that education programmes should integrate an understanding of heritage so that students can learn their heritage and its importance and meaning in their culture, history, environment and identity. Indeed, the protection of heritage is interlinked with various other areas.

In Asia and the Pacific, 11 States Parties consider that their policies integrate the issue of the conservation and protection of cultural and natural heritage into comprehensive/larger-scale planning programmes and they are effectively implemented. In most other States Parties, however, such policies do exist

but they understand that there are some deficiencies in implementation.

In a number of States Parties, heritage-related policies are closely integrated into a policy on sustainable development. In Lao People's Democratic Republic, the conservation and protection of the Town of Luang Prabang is strongly integrated into the policy of sustainable development. The increase in economic benefits improves the conservation of the heritage and the adequate conservation of the town attracts more economic benefits from tourism. The benefits from a growing tourism industry are being distributed to the local communities rather than to foreign investors. In Kazakhstan, the cultural heritage state programme Madeni Mura, which started in 2005, considers heritage as a key element for the sustainable development strategy of the state. One of the objectives of the programme is to bring to life historical, cultural and architectural monuments that are of special importance for national culture, through which it also develops tourism. State and regional programmes for tourism development also emphasize the importance of heritage as a potential resource for tourism development and the necessity of adequate preservation and presentation of heritage. Related laws are currently being elaborated. In Turkmenistan, the National Strategy of Economic, Political and Cultural Development until 2020 (2008) and the National Biodiversity Strategy and Action Plan (2002) cover the aspect of the conservation and protection of cultural and natural heritage. In Kiribati, the Kiribati Development Plan 2007–2010 reflects an environmental policy under which the conservation, protection and management of cultural and natural heritage are specified. Palau is developing a national policy for climate change, in which the management of natural heritage and the involvement of communities in the protection of natural heritage and resources will be included.



Coordination with other conventions

All the States Parties to the World Heritage Convention in Asia and the Pacific adhere to other international conventions for the protection of cultural and natural heritage. The issue of coordination between the World Heritage Convention and other conventions has been discussed by the World Heritage Committee from time to time.⁸ The World Heritage Committee at its 7th extraordinary session in 2004 invited 'States Parties of the 1972 World Heritage Convention to consider adhering to other international, regional and subregional instruments relating to the protection of natural and cultural heritage'. It also recalled that the 'coordination between 1972 World Heritage Convention and other conventions should apply at all levels'.

⁸ See for example, WHC-97/CONF.208/15 (World Heritage and the Prevention of Illicit Traffic of Cultural Property) and WHC-04/7. EXT.COM/9 (Cooperation and coordination between UNESCO Conventions concerning heritage).

In Asia and the Pacific, 23 States Parties consider that the implementation of these international conventions is adequately coordinated and integrated into the development of national policies for the conservation, protection and presentation of cultural and natural heritage, whereas 18 States Parties think it is limited.

Table 4 lists States Parties and their participation in other related international heritage conservation conventions. Among various conventions relating to the protection of cultural heritage, the Convention for the Safeguarding of the Intangible Cultural Heritage is ratified by 29 States Parties to the World Heritage Convention in the region. It is also interesting to note that the Convention on Biological Diversity is ratified or accessed by all States Parties to the World Heritage Convention in Asia and the Pacific.



The Convention for the Protection of Cultural Property in the Event of Armed Conflict (The Hague Convention, 1954)

The Convention for the Protection of Cultural Property in the Event of Armed Conflict (The Hague Convention) adopted in 1954 is the first international convention that is dedicated to the protection of cultural property – both movable and immovable – in the event of armed conflict. It was made as a result of a massive destruction of cultural heritage during the Second World War. The States Parties to the Convention prepare for the safeguarding of cultural property against the foreseeable effects of an armed conflict, and refrain from using cultural property for purposes which are likely to expose it to destruction or damage in the event of armed conflict. A limited number of properties of very great importance can be registered in the International Register of Cultural Property under Special Protection. A distinctive emblem of the Convention is used to identify property under protection. As of July 2012, there are 125 States Parties to the Convention.

Protocol to the Convention for the Protection of Cultural Property in the Event of Armed conflict (1954)

The First Protocol to the Hague Convention aims at preventing the exportation of cultural property during an armed conflict and returning such property if it is illicitly exported. As of July 2012, there are 101 States Parties to the First Protocol.

Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict (1999)

The Second Protocol intends to supplement the provisions of the Hague Convention through measures which reinforce

their implementation. Cultural property which meets certain conditions can be registered in the List of Cultural Property under Enhanced Protection, and the Committee for the Protection of Cultural Property in the Event of Armed Conflict decides whether enhanced protection should be granted. As of July 2012, there are 62 States Parties to the Second Protocol.



Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (1970)

This Convention aims at fighting against the illicit import, export and transfer of ownership of cultural property through international cooperation. To this end, the States Parties to the Convention undertake preventive measures such as formation of relevant laws, establishment of a national inventory of protected property, and introduction of a certificate which shows an authorization of the export of the cultural property. It also covers some restitution mechanisms for illicitly exported cultural objects. Under this Convention, 'cultural property' includes products of archaeological excavations, elements of artistic or historical monuments or archaeological sites, antiquities, rare manuscripts, archives, and specimens of flora and fauna. Currently there are 122 States Parties to the Convention.



UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects (1995)

The UNIDROIT Convention is a complementary instrument to the 1970 Convention. It sets uniform rules and conditions for restitution of stolen cultural objects, which allow restitution claims by private individuals, and for return of illicitly exported cultural objects, both to be processed

directly through national courts. Currently there are 32 States Parties to the Convention.



Convention on the Protection of the Underwater Cultural Heritage (2001)

This Convention sets out basic principles for the protection of underwater cultural heritage such as obligation to preserve underwater cultural heritage, preservation as first option, no commercial exploitation, and training and information sharing. Currently there are 41 States Parties to the Convention.



Convention for the Safeguarding of the Intangible Cultural Heritage (2003)

This Convention intends to safeguard the intangible cultural heritage such as practices, representations, expressions, knowledge and skills that communities, groups and individuals recognize as part of their cultural heritage. The intangible cultural heritage is manifested in such domains as oral traditions and expressions, performing arts, social practices, rituals and festive events, knowledge and practices concerning nature and the universe, and traditional craftsmanship. The Intergovernmental Committee establishes the Representative List of the Intangible Cultural Heritage of Humanity to ensure better visibility of the intangible cultural heritage and awareness of its significance, and the List of Intangible Cultural Heritage in Need of Urgent Safeguarding in order to take appropriate safeguarding measures. Currently, there are 144 States Parties to the Convention.

Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)

This Convention promotes the establishment of the system of governance of culture in order to ensure that artists, cultural professionals, practitioners and citizens worldwide can create, produce, disseminate and enjoy a wide range of cultural goods, services and activities, including their own. It reaffirms the right of states to develop cultural policies and highlights the importance of developing domestic cultural industries for attaining sustainable development. Currently, there are 123 Parties to the Convention.



Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention, 1971)

The Ramsar Convention on Wetlands is a global intergovernmental treaty for the conservation and sustainable use of wetlands signed in the Iranian town of Ramsar in 1971. The Member States (also known as "Contracting Parties") undertake to protect and sustainably use all the wetlands on their territory by implementing the necessary local measures as well as through national and

international cooperation. The current 161 Contracting Parties actively collaborate to maintain the ecological characteristics of all wetlands, including through the designation of at least one wetland site for inclusion in the List of Wetlands of International Importance (Ramsar List).



Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973)

CITES aims at protecting certain species of wild fauna and flora against over-exploitation through international trade so that their survival will not be threatened. It uses a licensing system, by which all import and export of species covered by the Convention have to be authorized. Currently, there are 175 Member Countries of CITES.



Convention on Migratory Species of Wild Animals (Bonn Convention, 1979)

The Bonn Convention aims to conserve migratory species. Under the Convention, two lists are established: Appendix I for migratory species that are endangered, for which Parties endeavour to conserve and restore habitats, and Appendix II for migratory species which have an unfavourable conservation status and which require international agreements for their conservation and management, for which Parties endeavour to conclude agreements to restore the migratory species. Currently, there are 116 Parties to the Convention.



Convention on Biological Diversity (1992)

This Convention aims for the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. To that end, each Contracting Party develops national strategies for the conservation and sustainable use of biological diversity and needs to take appropriate measures including the establishment of a system of protected areas to conserve biological diversity, the regulation or management of biological resources important for its conservation, and the rehabilitation and restoration of degraded ecosystems and the promotion of recovery of threatened species. There are 193 Parties to the Convention.

Table 4. States Parties and their participation in other related international heritage conservation conventions

State Party	UNESCO									UNEP		
	Hague Convention 1954	Hague 1st Protocol 1954	Hague 2nd Protocol 1999	UNESCO Convention 1970	UNIDROIT 1995	Underwater Convention 2001	Intangible Convention 2003	Cultural Diversity Convention 2005	Ramsar Convention 1971	CITES 1973	Bonn Convention 1979	Biodiversity Convention 1992
	Year of ratification											
Afghanistan				2005	2005		2009	2009		1985		2002
Australia	1984			1989				2009	1975	1976	1991	1993
Bangladesh	2006	2006		1987			2009	2007	1992	1981	2005	1994
Bhutan				2002			2005		2012	2002		1995
Brunei Darussalam							2011			1990		2008
Cambodia	1962	1962	2010	1972	2002	2007	2006	2007	1999	1997		1995
China	2000	2000		1989	1997		2004	2007	1992	1981		1993
Cook Islands											2006	1993
Fiji							2010		2006	1997		1993
India	1958	1958		1977			2005	2006	1981	1976	1983	1994
Indonesia	1967	1967					2007	2012	1992	1978		1994
Iran, Islamic Republic of	1959	1959	2005	1975	2005	2009	2006		1975	1976	2008	1996
Japan	2007	2007	2007	2002			2004		1980	1980		1993
Kazakhstan	1997	1997					2011		2007	2000	2006	1994
Kiribati												1994
Korea, Democratic People's Republic of				1983			2008					1994
Korea, Republic of				1983			2005	2010	1997	1993		1994
Kyrgyzstan	1995			1995			2006		2002	2007		1996
Lao People's Democratic Republic							2009	2007	2010	2004		1996
Malaysia	1960	1960							1994	1977		1994
Maldives												1992
Marshall Islands									2004			1992
Micronesia, Federated States of												1994
Mongolia	1964			1991			2005	2007	1997	1996	1999	1993
Myanmar	1956	1956							2004	1997		1994
Nepal				1976			2010		1987	1975		1993
New Zealand	2008			2007	2006			2007	1976	1989	2000	1993
Niue												1996
Pakistan	1959	1959		1981			2005		1976	1976	1987	1994
Palau							2011		2002	2004	2008	1999
Papua New Guinea							2008		1993	1975		1993
Philippines							2006		1994	1981	1994	1993
Samoa									2004	2004	2005	1994
Singapore										1986		1995
Solomon Islands										2007		1995
Sri Lanka	2004			1981			2008		1990	1979	1990	1994
Tajikistan	1992	1992	2006	1992			2010	2007	2001		2001	1997
Thailand	1958	1958							1998	1983		2004
Tonga							2010					1998
Turkmenistan							2011		2009			1996
Uzbekistan	1996			1996			2008		2001	1997	1998	1995
Vanuatu							2010			1989		1993
Viet Nam				2005			2005	2007	1988	1994		1994

Coordination among services

World Heritage Convention

Article 5

2. to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;

The implementation of the World Heritage Convention within States Parties requires coordination and cooperation of various stakeholders including different government agencies. This is because the World Heritage Convention is a unique mechanism which aims at safeguarding both cultural and natural heritage, and the safeguarding of heritage cannot be done without the cooperation of agencies in charge of other issues as well as of local governments where the properties are situated. In most States Parties in the region, cultural properties and natural properties are separately managed by different government authorities. This means that for the balanced implementation of the World Heritage Convention for the safeguarding of both cultural and natural heritage, coordination between the principal agencies and institutions responsible for cultural and natural heritage is needed, and 17 States Parties report that there is effective cooperation while 18 report some cooperation.

Cooperation between different levels of government is less effective. Only 9 States Parties report having effective cooperation but more than 25 States Parties (60%) still report maintaining some cooperation. Cooperation between different levels of government is important in every aspect of the implementation of the World Heritage Convention. Local governments are the ones that daily monitor the properties, communicate and involve local communities, whereas national governments normally deal with policy-making and coordination across all ministries at the highest level. Moreover, national governments are the ones that ratified the World Heritage Convention and represent the State Party. Without effective cooperation, national policies would not be properly reflected in the daily heritage management, local communities would not be involved in the implementation of those policies, various concerns in relation to heritage management would not be effectively communicated to all other relevant stakeholders at national level, the voice from the local level would not reach the World Heritage Committee, and recommendations by the Committee would also not be implemented at the properties.

A similar thing can be said about the cooperation with government agencies responsible for issues other than heritage protection such as tourism, defence, public works and fishery. Because heritage cannot be safeguarded in isolation detached from other activities, it is crucial that the communication, coordination and cooperation with non-protection agencies are maintained to ensure the safeguarding of heritage while finding a balance with other requirements

for human living. However, it is revealed that in Asia and the Pacific the cooperation with these agencies is the least effective of the three types of cooperation among different government services. Only 9 States Parties report having an effective cooperation. It is not uncommon that non-protection government agencies do not show much interest in the issue of heritage conservation and management partly because the issue is not within their mandate. In other cases, safeguarding of heritage can even be regarded as a hindrance to their work when there is a conflict of interests. Such cases could happen when, for example, the Ministry of Infrastructure authorizes a construction of infrastructures in the vicinity of a property, or there is a military training camp nearby. Initiating the coordination with them could be challenging, but it would pre-empt major issues potentially damaging the heritage.

Mechanism for coordination: World Heritage Interdepartmental Meeting (Japan)

In Japan, a World Heritage Interdepartmental Meeting plays a role in coordinating between the agency responsible for heritage protection and non-protection agencies. The Interdepartmental Meeting is chaired by the Director-General of the Public Policy Department in the Ministry of Foreign Affairs and attended by the Agency for Cultural Affairs, Ministry of Environment, Forestry Agency, Fisheries Agency, Ministry of Land, Infrastructure, Transport and Tourism, and the Imperial Household Agency. A meeting is convened whenever there is a need to discuss issues mainly relating to Tentative Lists, nominations, and state of conservation of properties. Although extra time and effort may be required for coordination when various ministries and agencies are involved with a property, the meeting ensures effective communication and coordination of their actions as well as the harmonization of the legal framework between different levels of national administration.

Coordinating among heritage properties (Australia)

The Australian World Heritage Advisory Committee (AWHAC), which consists of one representative from each World Heritage property in Australia and two representatives from the Australian World Heritage Indigenous Network (AWHIN), was established in 2008 by the Environment Protection and Heritage Council (EPHC) to provide advice to Commonwealth and State/Territory Ministers on issues that affect the World Heritage properties in Australia. The Committee meets once a year to discuss issues of common interest for World Heritage properties which may require a common approach, such as interpretation, education, promotion, communication and marketing research and monitoring, and engagement with various stakeholders including indigenous people. Also, the Heritage Chairs and Officials of Australia and New Zealand (HCOANZ) is a group that consists of the Chair of the Commonwealth, state/territory heritage councils and the director of each associated heritage government agency and provides expertise and advice on historic heritage matters to the Environment Protection and Heritage Council and other relevant Ministerial forums. The group meets twice a year, and it facilitates the sharing of knowledge and experience and coordinates national approaches on historic heritage.

Legal framework

World Heritage Convention

Article 5

4. to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage;

In order to ensure the implementation of international conventions by the States Parties, the conventions need to be either transformed or incorporated into national legislation. The World Heritage Convention is no exception. Taking the appropriate legal measures necessary for the identification,

protection, conservation, presentation and rehabilitation of heritage is also stipulated in Article 5 of the World Heritage Convention. In the case of the World Heritage Convention, legislation relevant to the identification, conservation and protection of cultural and natural heritage include legislation relating to cultural and natural heritage, antiquity, monuments, archaeological sites, biodiversity, fishery, forest, wildlife, natural resources and ecosystem. Types of legislation may vary from laws to acts, ordinances and decrees.

In order for the legal framework to be effective, there are two important aspects to consider – the adequacy of the legislation and its enforcement.

Adequacy of legal framework

All States Parties in Asia and the Pacific have a legal framework for the identification, conservation and protection of cultural and natural heritage. Two-thirds of them consider their legal framework to be adequate, whereas 10 States Parties (Afghanistan, Bhutan, Indonesia, Islamic Republic of Iran, Kyrgyzstan, Maldives, Nepal, Papua New Guinea, Samoa, Tonga) consider them to be inadequate. All States Parties in North-East Asia and Australia and New Zealand report their legal framework adequate.

Inadequacy of legal framework for heritage protection has been discussed by the World Heritage Committee from time to time. Such a case can happen, for example, when a regulation

and/or a management system are effective for the protection of main monuments but not for the protection of landscape/seascape or the maintenance of visual integrity, or when protective zones exist but the zoning itself is not adequate to protect the value of cultural and natural heritage. In other cases, certain categories of heritage (e.g. cultural landscape or industrial heritage) are not covered by existing laws.

An adequate legal framework should be simple to understand and to use, sustained by adequate power and administrative support. It would provide professional advice and incentives for people to comply with it.

Law enforcement

For a legal framework to be effective, law enforcement capacity is as important as the adequacy of a legal framework to make sure that the members of a society would abide by its laws. Law enforcement capacity includes patrolling and surveillance, penalties and prosecution systems, adequate budget, staff and equipment to put these systems in place.

Although two-thirds of States Parties in Asia and the Pacific consider their legal framework to be adequate, the majority of States Parties (68%) report the need for strengthening the capacity to enforce legislation. Five States Parties (Kyrgyzstan, Maldives, Papua New Guinea, Samoa and Tonga) even report that they do not have effective capacity or resources for implementation.

The insufficient capacity for law enforcement for heritage protection in a number of States Parties has been discussed by the World Heritage Committee from time to time. Among the cases discussed by the Committee, examples can be found in relation to encroachment and illegal construction (Angkor, Cambodia; Group of Monuments at Hampi, India; Mahabodhi Temple Complex at Bodhgaya, India; Sangiran Early Man Site, Indonesia; Tropical Rainforest Heritage of Sumatra, Indonesia; Town of Luang Prabang, Lao People's Democratic Republic), enforcement of conservation and/or management plans and protective measures (Town of Luang Prabang, Lao People's Democratic Republic; Kathmandu Valley, Nepal), and illegal

logging, poaching and fishing (Manas Wildlife Sanctuary, India; Tropical Rainforest Heritage of Sumatra, Indonesia; Rice Terraces of the Philippine Cordilleras, Philippines; Tubbataha Reefs Natural Park, Philippines). Without the capacity to enforce legal framework, these illegal activities cannot be controlled.

The reasons for the lack of capacity for law enforcement can vary, thus how to increase such capacity and enforce the legal framework have to be considered for each case. In the case of Tubbataha Reefs Natural Park (Philippines) where illegal fishing drew the attention of the World Heritage Committee, problems with law enforcement involved inadequate knowledge of law enforcement personnel about the enforcement process, unclear or undefined prosecution strategies, delays in the prosecution of cases, inadequacy of sanctions and penalties, and filing of harassment suits or countersuits against law enforcers. Fishers also did not take environmental laws seriously due to lack of information. In this case, better education and training of law enforcement personnel and others were considered a priority, and the Tubbataha Management and the judiciary worked together to address these problems. In the Tropical Rainforest Heritage of Sumatra (Indonesia), regular patrolling, prosecution of transgressors and illegal loggers, and capacity-building of park rangers have been undertaken to improve law enforcement, and the World Heritage Committee also urged the State Party to provide law enforcement agencies with adequate resources so that the law enforcement activities can be expanded.

Financial and human resources

Financial resources

Securing sufficient and sustainable funding is important for any of the activities required to implement the World Heritage Convention – the identification, protection, conservation, presentation and rehabilitation of cultural and natural heritage. In Asia and the Pacific, the adequacy of national budgets for protecting cultural and natural heritage is variable across the region (Figure 7). The situation is best in North-East Asia where 60% of States Parties perceive their budget to be either sufficient or acceptable. On the other hand, the situation is rather critical in South-East Asia and the Pacific Island States where 86% and 100% of States Parties feel that their budget could be improved or even inadequate. In the Pacific there is a stark contrast between the situation in Australia and New Zealand where budgets are generally reported as adequate, and in the Pacific Island States where budgets are universally inadequate or in need of improvement to meet protection needs. Overall, the revealed situation is that most States Parties feel that the budget is not sufficient.

When securing funding and making the most of it, it is important to consider the following aspects – funding sources, appropriate allocation and cost-effective usage, and fund-raising. In Asia and the Pacific, the most important source of funding for the conservation and protection of cultural and natural heritage is the funds provided by the national government (Figure 8). In all subregions of Asia, the proportion of national government funding is the largest (30–36%). In North-East Asia, South-East Asia, and Australia and New Zealand, the funding from governments (both national and provincial or local) makes up to 56–64% of the total funding. The situation, however, is different in the Pacific Island States, where funding sources are manifold, and the World Heritage

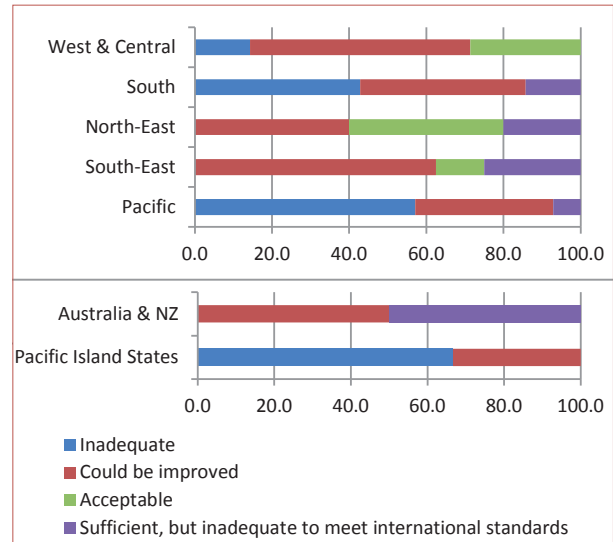


Figure 7. Is the current budget sufficient to conserve, protect and present cultural and natural heritage effectively at the national level?

Fund and other multilateral and bilateral sources provide more funds than national and local governments which share only 26% of funding. The situation here shows that World Heritage programmes in the Pacific Island States cannot be sustained by national funding, and are fundamentally reliant on sources of funding external to the individual countries. All subregions equally benefit from support from the World Heritage Fund, although West and Central Asia and the Pacific Island States tend to rely more on International Assistance compared with other subregions. The Pacific Island States rely more on international multilateral and bilateral funding than other subregions. Australia and New Zealand are more successful in mobilizing private sector funds and NGOs than other subregions, but overall there is room for improvement in increased funding from the private sector. How to secure more funding for the conservation and protection of cultural and natural heritage is often a concern for many States Parties. In addition to the funding from governments, donors, and the private sector, more funding can be raised and secured by establishing foundations and allocating site revenues. Article 17 of the World Heritage Convention stipulates that the States Parties to this Convention shall consider or encourage the establishment of national public and private foundations whose purpose is to invite donations for the protection of the cultural and natural heritage. In Asia and the Pacific, 26 States Parties (63%) have national policies for the allocation of site revenues for the conservation and protection of cultural and natural heritage, although only 14 States Parties (34%) have helped to establish

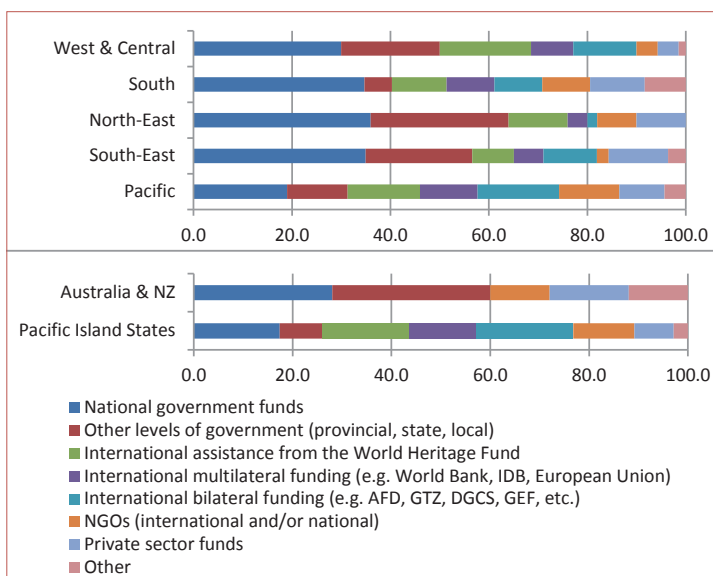


Figure 8. Please rate relative importance of the following sources of funding for the conservation and protection of cultural and natural heritage in your country.

national, public and private foundations or associations for raising funds and donations for the protection of World Heritage properties.

While International Assistance is an important support mechanism from the World Heritage Fund for the implementation of the World Heritage Convention, this cannot be a continuous source of funding for the States Parties, and it is extremely important that they also look for other sources of funding to sustain their activities. Figure 9 shows the top 10 properties that have received International Assistance from the World Heritage Fund, which indicates some discrepancy in the distribution. As indicated in the *Operational Guidelines*, International Assistance should take into consideration the likelihood whether it will be the seed money when granting the assistance. Although the amount of International Assistance varies depending on the issues, the properties that have benefited greatly from International Assistance are strongly encouraged to find other sources for funding so that other properties in need of assistance could also benefit from this mechanism.

How to raise funds is also closely related to the awareness of various actors. In the case of World Heritage, the inscription of properties on the World Heritage List most often leads to increased recognition for tourism (see pages 80–81) and the number of tourists normally increases after inscription. This means that a good strategy will allow visitor charges to be channelled into the conservation and protection of properties, and there is potential for creating a self-sustainable funding mechanism. There are in fact many States Parties that use visitor charges for the protection and management of

properties. In Palau, a great majority of funding for properties comes from fees paid by visitors, and the State Party even considers that it is the only reliable and sustainable funding for the protection of their properties. The level of awareness of other actors including the general public and the private sector and opportunities for more cooperation and partnership are further discussed later in this chapter.

World Heritage inscription can sometimes attract a substantial amount of funding from various donors (public, private, multilateral, bilateral and individual) at the same time. For example, there are several properties in Asia and the Pacific where international and regional organizations such as the World Bank, the Asian Development Bank and the European Union also contribute to the conservation and management of properties, in addition to the International Assistance provided by UNESCO. More funding is generally welcomed by States Parties, but when a huge amount comes in, how to coordinate to best utilize the funds is crucial.

How the money is spent is also an important indication of the cost-effective usage of available funding. If the money does not seem to have been spent effectively, it is necessary to discover the cause and address the problems. For example, in the case of preparatory assistance under the International Assistance that was granted in Asia and the Pacific for the preparation of Tentative Lists and nomination files of specific properties, 74.5% of the properties which received International Assistance submitted their nomination files, and only 45.3% of the properties (63.4% of the properties whose nomination files were submitted) have been successfully inscribed on the World Heritage List. Moreover, the nomination files of

10.9% of the properties which received preparatory assistance have been considered incomplete. This suggests that, although the implementation of the budget granted by International Assistance is a responsibility of each State Party, technical assistance and support by the World Heritage Centre and the Advisory Bodies need to be provided to ensure the successful implementation of International Assistance.

It is clear that the financial resources are never enough to meet the needs for the conservation and protection of cultural and natural heritage in every State Party. This means that, while international funding including International Assistance is also helpful, it is necessary to develop a self-sustaining funding mechanism so that the conservation and protection of heritage would not need to keep relying on unsustainable external resources.

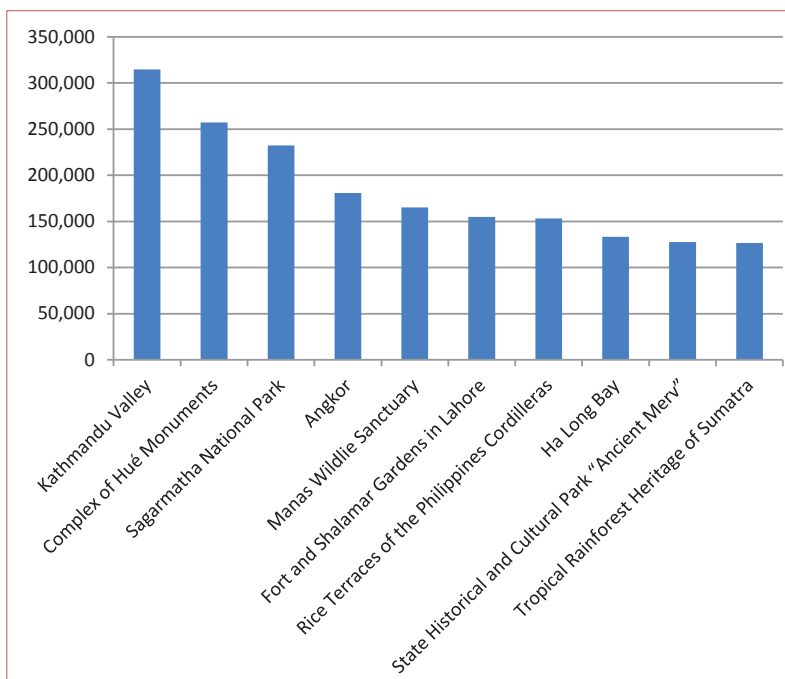


Figure 9. Top 10 properties in Asia and the Pacific that have received International Assistance from the World Heritage Fund (in US\$).

Human resources

Adequate human resources are also a key, along with financial resources, for the implementation of the World Heritage Convention. The trend of available human resources and their adequacy for the conservation, protection and presentation of cultural and natural heritage at national level is similar to those of financial resources, although the situation with human resources is perceived by States Parties to be slightly better than the situation with financial resources (Figure 10). The condition in North-East Asia is the best with 60% of States Parties having adequate human resources, followed by South-East Asia with 50%. However, the available human resources are much less adequate in meeting needs in West and Central Asia, South Asia, and the Pacific Island States. In particular, more than 90% of the Pacific Island States report that their human resources are below optimum or inadequate. This highlights a vital need in the Pacific Island States for recruitment of more staff to service the needs of heritage protection. Having adequate staffing is important but it is equally important that they are equipped with good skills and techniques. The issue of capacity-building is discussed further on pages 44–47.

How to secure human resources can be as great a concern for States Parties as securing financial resources. One way of gaining additional human resources and help for the management of World Heritage properties is to increase volunteers. As discussed in Chapter 4, currently only about 4–6% of the workforce is voluntary, but experience shows that volunteers can provide very substantial additional management capacity at little added cost. Involving volunteers benefits not only the management of World Heritage properties but also those who are involved in volunteering. Volunteering is a good way of promoting World Heritage and raising awareness of a larger public. Gaining hands-on experience enriches the knowledge and understanding of World Heritage properties and their management, and it would also provide participants with a rewarding experience.

The World Heritage Volunteers campaign launched in 2008 and coordinated by the World Heritage Centre in cooperation with the Coordinating Committee for International Voluntary Service (CCIVS) is a project that could satisfy those who are looking for help for property management and those who are willing to offer such help as volunteers. The project provides volunteers, as well as youth groups and heritage experts involved in the protection of selected World Heritage properties, an opportunity for dialogue through working together. Each project is organized by a local youth organization or an NGO which determines activities in cooperation with partners such as site managers and local authorities.

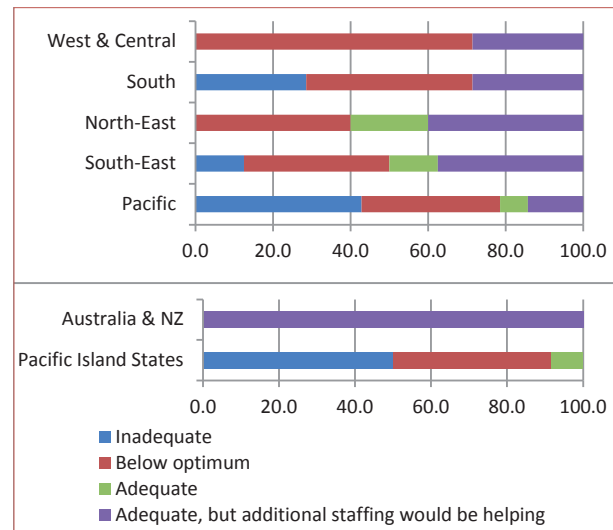


Figure 10. Are available human resources adequate to conserve, protect and present cultural and natural heritage effectively at the national level?

Properties participating in the World Heritage Volunteers campaign

2008: Prambanan Temple Compounds (Indonesia); Gochang, Hwasun and Ganghwa Dolmen Sites (Republic of Korea); Shirakami-Sanchi (Japan); Dong Phrayayen-Khao Yai Forest Complex (Thailand); Ha Long Bay (Viet Nam)

2009: Borobudur Temple Compounds, Prambanan Temple Compounds (Indonesia); Jeju Volcanic Island and Lava Tubes (Republic of Korea); Ha Long Bay (Viet Nam)

2010: Group of Monuments at Hampi (India); Borobudur Temple Compounds, Prambanan Temple Compounds, Sangiran Early Man Site (Indonesia); Iwami Ginzan Silver Mine and its Cultural Landscape (Japan); Jeju Volcanic Island and Lava Tubes (Republic of Korea); Ha Long Bay (Viet Nam)

2011: Group of Monuments at Hampi (India); Borobudur Temple Compounds, Prambanan Temple Compounds (Indonesia); Jeju Volcanic Island and Lava Tube (Republic of Korea); Central Sector of the Imperial Citadel of Thang Long – Hanoi (Viet Nam)

2012: The Great Wall, Mount Sanqingshan National Park, Temple and Cemetery of Confucius and the Kong Family Mansion in Qufu, Ancient City of Ping Yao (China); Borobudur Temple Compounds, Prambanan Temple Compounds (Indonesia); Iwami Ginzan Silver Mine and its Cultural Landscape (Japan); Historic Village of Korea: Hahoe and Yangdong, Gyeongju Historic Areas, Jeju Volcanic Island and Lava Tubes (Republic of Korea), Ha Long Bay, Central Sector of the Imperial Citadel of Thang Long – Hanoi (Viet Nam)

Scientific and technical studies and research

World Heritage Convention
Article 5
 3. to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;

The World Heritage Convention stipulates that the States Parties should develop scientific and technical studies and research and work out operating methods which will enable the States Parties to counteract the dangers that threaten cultural or natural heritage. Scientific and technical studies and research contribute not only to finding appropriate methods for the conservation and management of properties but also provide knowledge and understanding of the values of properties as well as their function in society. Furthermore, scientific studies and research provide a fundamental basis which supports training and educational activities. To that end, the *Operational Guidelines* encourage States Parties to make resources available to undertake research, and International Assistance is also available as part of conservation and management assistance (Paragraphs 215–16).

The reported status of scientific or traditional knowledge shows that there is sufficient knowledge to support planning, management, and decision-making to ensure the maintenance of Outstanding Universal Value in the region (Figure 11). States Parties report that in 79 properties (39.8%) knowledge about the values of the World Heritage property is sufficient and in 108 properties (54.5%) it is sufficient for most key areas but there are gaps. Only in 11 properties is insufficient knowledge reported.

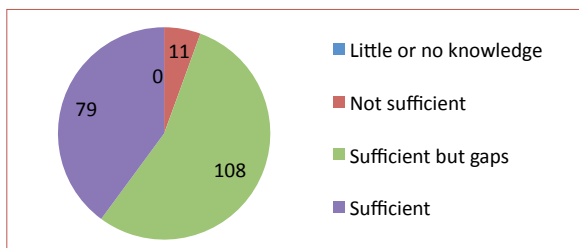


Figure 11. Is there adequate knowledge (scientific or traditional) about the values of the World Heritage property to support planning, management and decision-making to ensure that Outstanding Universal Value is maintained?

In order to ‘make the State capable of counteracting the dangers that threaten its cultural or natural heritage’, research support specifically for World Heritage properties requires

further development. Only seven of 41 States Parties report comprehensive research for World Heritage, and 13 have no research programme. Comments provided by the States Parties also show a great difference in their attitude towards research. For example, no research projects have been undertaken on World Heritage in the Islamic Republic of Iran since the last cycle of Periodic Reporting although each cultural property has its own research centre, whereas the Wildlife Institute of India is operating research projects in all five natural properties in the country. However the overall understanding of States Parties is that there is a need for improved research effort.

At the property level, the existence of comprehensive, integrated research programmes that are directed towards management needs is reported in 102 properties (51.5%) (Figure 12). Considerable research programmes, which are not directed specifically at management, are reported

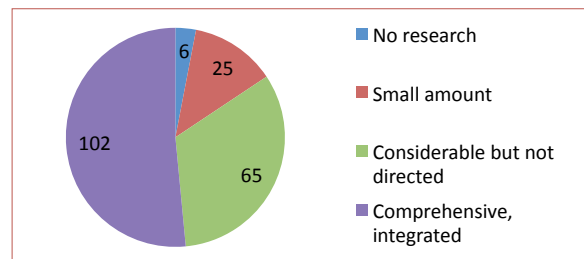


Figure 12. Is there a planned programme of research at the property which is directed towards management needs and/or improving understanding of Outstanding Universal Value?

in another 65 properties. It is worth noting that Chapter 4 shows that property managers have the best cooperation with researchers among various stakeholders. Good cooperation with researchers also benefits comprehensive research of World Heritage properties. Six properties, however, report that there is no research.

In order to make the most of the research results in the management of properties, it is vital that the results are shared with relevant actors (Figure 13). In Asia and the Pacific, the

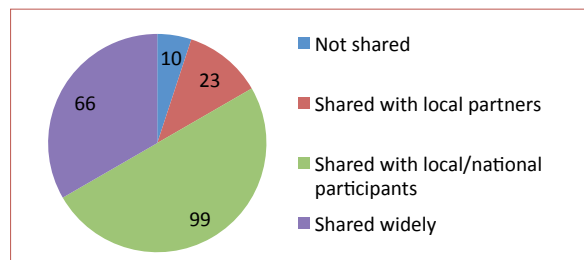


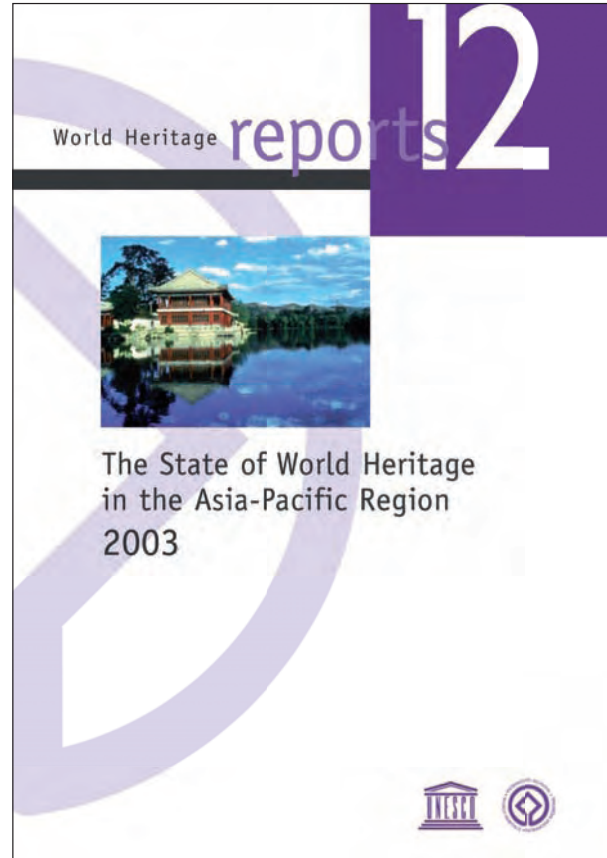
Figure 13. Are results from research programmes disseminated?

dissemination of research results with national agencies and local participants is reported in 99 properties and with wider audiences, including international ones, in 66 properties.

Out of 198 properties in the region, research papers were published since the first cycle of Periodic Reporting in 136 properties. The comments made by 103 properties provide a good overview of ongoing research, including suggestions for further research requirements. Some States Parties suggest the need for documentation centres and utilization of information for educational and site promotional purposes. The comments further reveal two common issues in relation to research: the lack of funding and the lack of local expertise. In some States Parties, research is often carried out by international experts, and in the Pacific Island States all research capability is from outside the States Parties. Overall the value of science and research is appreciated but there are also limitations in implementation and application to property management due to inadequate funds. Cambodia, however, reports progress in the availability of local expertise, saying that the research is no longer conducted only by international researchers but also by young Cambodian researchers.

Scientific and technical studies and research of a generic nature can benefit multiple World Heritage properties. For example, research on climatic and environmental change, the condition and trend of wildlife populations, the impacts of alien species, human-induced modifications and impacts, historical and cultural values of properties, condition of fabric and the authenticity and integrity of properties can contribute to the better management of properties. Research associated with monitoring can be an invaluable aid for guiding management intervention in both natural and cultural properties. International Assistance is also granted for research whose subject matter is of priority for better protection and safeguarding of World Heritage properties and whose results will be concrete and applicable widely within the World Heritage system.

The lists of scientific and technical studies and research provided by States Parties show that many of the studies



are focused on individual properties. While such research is useful for the properties concerned and other properties which might share similar traits, factors affecting the properties and/or management issues, it is recommended that scientific and technical studies of a generic nature be more supported so that the outcome can be shared with various properties both nationally and internationally. Such an approach would also address the difficulties arising from the lack of funding and local expertise.

A non-exhaustive list of scientific and technical studies and research conducted and available in Asia and the Pacific reported by the States Parties is attached in the Annex.



Capacity-building

Capacity-building strategy

World Heritage Convention

Article 5

5. to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

Capacity-building of those who are involved in the conservation and management of cultural and natural heritage is essential. For this purpose, the World Heritage Committee adopted at its 25th session in 2001 the Global Training Strategy for World Cultural and Natural Heritage. Taking into account changes since then – including a paradigm shift from training to capacity-building, new emerging priority topics for capacity-building, and entry of new capacity-building institutions, the World Heritage Committee reviewed the strategy and adopted the new World Heritage Capacity-Building Strategy at its 35th session in 2011. Capacity-building is also one of the Strategic Objectives ('5Cs') of the World Heritage Convention. Capacity-building applies to all the stakeholders: from site managers, government officials responsible for heritage conservation to the youth and the members of communities. The methods for capacity-building may vary depending on specific needs and gaps. Training courses and workshops are often used in various areas and at different levels, but other means such as provision of manuals and guidelines, exchange of information and experience, study tours and mentoring are also important methods of capacity-building.

The World Heritage Capacity-Building Strategy provides a framework for effective actions and programmes to strengthen capacities of three main target audiences: practitioners, institutions and communities and networks for

the conservation and management of World Heritage. It is structured around five Strategic Objectives of the Convention with 10 specific goals. The Strategy can be found on: WHC-11/35.COM/9B, <http://whc.unesco.org/archive/2011/whc11-35com-9Be.pdf>.

In order to implement capacity-building effectively, addressing capacity gaps and allocating resources in an efficient manner, it is recommended that States Parties have a national strategy for capacity development. The *Operational Guidelines* also encourage the States Parties to develop national capacity-building strategies and include regional cooperation for capacity-building as part of their strategies. In Asia and the Pacific, only six States Parties (China, Japan, Malaysia, Republic of Korea, Thailand, New Zealand) have a national training and educational strategy for capacity-building in the field of heritage conservation, protection and presentation that is effectively implemented. Seven States Parties have no strategy, while another ten do not have a strategy but training is carried out on an ad hoc basis. In the Pacific, apart from Australia and New Zealand, no country reports having an effectively implemented strategy, and a quarter of the States Parties have no such strategy.

To assist capacity-building, International Assistance also provides financial support for training. In Asia and the Pacific, a total amount of US\$2,080,507 (23.7% of total amount of International Assistance and 39.2% of conservation assistance given to Asia and the Pacific) has been provided to 25 States Parties for training under conservation assistance. Much of this was used for the organization of capacity-building workshops and/or participation in training workshops on conservation and management of various types of heritage.



Capacity-building of local communities and indigenous people to engage them in the management of properties is also important.



Capacity-building need in risk preparedness is high in some subregions.

Capacity-building needs

The Strategy encourages each region to develop its own regional capacity-building strategy and associated programmes at the regional level, which will be different from one region to another, in order to respond to the specific regional needs and situations. Periodic Reporting provides an opportunity to identify such specific needs. Across the region, conservation, education, visitor management and risk preparedness

are generally perceived as top priorities. However, some subregional differences are observed. These differences reflect different subregional characteristics in terms of conservation and management, issues affecting heritage, baseline capacity and accessibility to resources, hence how best to address these different needs for capacity-building may also be different.

West and Central Asia

In West and Central Asia, conservation, education, interpretation, visitor management and risk preparedness are areas where three out of seven States Parties in the subregion consider capacity-building to be high priority (Figure 14). For conservation, Kazakhstan and Turkmenistan expressed a strong need for training in the conservation of earthen architecture and structures. They propose that the exchange of information and advanced techniques, as well as the establishment of a subregional database, would be helpful.

In order to work on the training needs in conservation and management of similar architectural types, a series of workshops on the conservation and management of Persian, Timurid and Mughal architecture was organized by the Islamic Republic of Iran (2007), Uzbekistan (2008) and India (2009). The workshops were not limited to West and Central Asia and they brought together site managers and cultural heritage authorities from Afghanistan, Bangladesh, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan and Uzbekistan. The workshops provided on-site training as well as opportunities to discuss and identify conservation measures and future training needs. This is one of the good examples of jointly addressing common training needs and developing a network for cooperation and exchange.

West and Central Asia is the subregion which has currently only one natural property inscribed on the World Heritage List. In that respect, Iran expresses an urgent need for capacity-building of those who are involved in the conservation and management of natural heritage, including government institutions.

South Asia

In South Asia, conservation and risk preparedness are the areas where the training needs are highest, followed by education, visitor management and interpretation (Figure 15). In this subregion, there is a lack of conservation specialists to manage a huge number of heritage properties. This is especially the case for cultural properties. Visitor management has become a major issue due to lack of expertise to establish tourism management plans to deal with the rising number of visitors to the World Heritage properties.

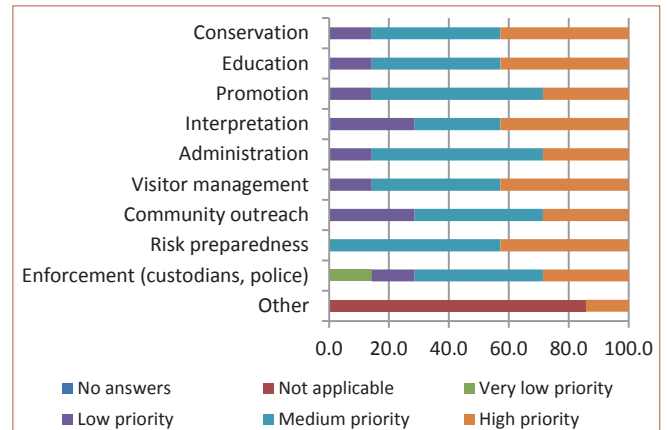


Figure 14. Capacity-building needs identified by the States Parties in West and Central Asia.

In West and Central Asia, the issue of language often poses some difficulties in capacity-building. In the case of Central Asia, many stakeholders including site managers, experts and government officials prefer Russian to English among the six official UN languages, but not all the training materials and/or courses are accessible in Russian. The language barriers sometimes limit the opportunities for people to be exposed to the most up-to-date information of international standards in various fields. For the same reason, those who can participate in international training courses are rather limited, and it is also difficult to build local expertise that could pass the knowledge and skills on to other people. Therefore, in this subregion, the translation of various materials and the provision of training workshops in Russian or Persian will form one of the important aspects of capacity-building.

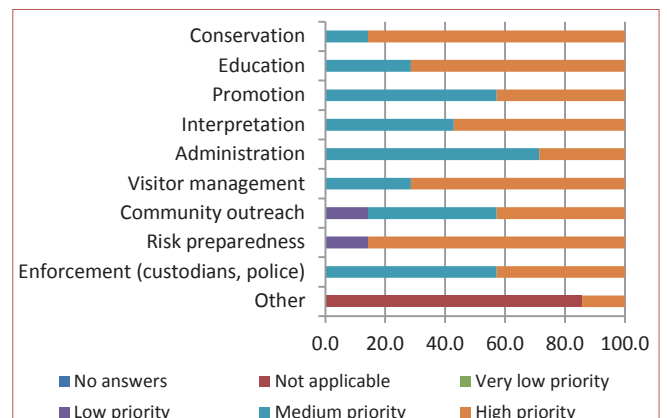


Figure 15. Capacity-building needs identified by the States Parties in South Asia.

In this subregion, there are training institutions such as the Wildlife Institute of India for natural properties. For cultural properties, however, there are no institutions geared specifically for the context of South Asia. There are some discussions on the establishment of a Category II Centre.⁹ With

North-East Asia

In North-East Asia, the areas where capacity-building is most needed are conservation, education and risk preparedness, followed by interpretation and visitor management (Figure 16). It is interesting to note that although tourism is regarded as one of the factors affecting the properties in this subregion greatly (see Chapter 3 for more details), training in visitor management is less needed than in conservation, education and risk preparedness. This might suggest that despite the impact of tourism, the capacity to deal with tourism in this subregion is already relatively high. It might be of use and interest for the States Parties and properties in other subregions to exchange information in this regard with the States Parties in North-East Asia.

Among the States Parties in North-East Asia, China, Japan and the Republic of Korea have training centres and institutes which offer courses on the conservation of cultural heritage. These courses are mainly for national participants, but some are open to international participants as well. For example, the World Heritage Institute of Training and Research for the Asia and the Pacific Region (WHITRAP) in China is a Category II Centre, which offers training courses including an advanced course on World Heritage conservation and management.

South-East Asia

In South-East Asia, the top priority area where training is needed most is education, followed by conservation and visitor management (Figure 17). The Philippines feels that there is a need for improved capacity for all stakeholders – from government officials to NGOs, private sector and communities – involved in the conservation of both cultural and natural heritage. The Lao People's Democratic Republic mentions that conservation and curatorial studies do not exist in the current system and they need to be introduced in the curriculum in the study of architecture. There is also a need for training in sustainable tourism. Viet Nam expresses that training is needed for those who are involved in property management as well as local people living around the properties. Sending staff to international meetings and research on site management in other countries will also help to build their capacity. Cambodia also comments that technical assistance by other countries would be productive to build their capacity.

such institutions providing training for the subregion, it would be possible to establish a network of expertise to address subregional specific issues and conditions of the conservation of heritage in South Asia.

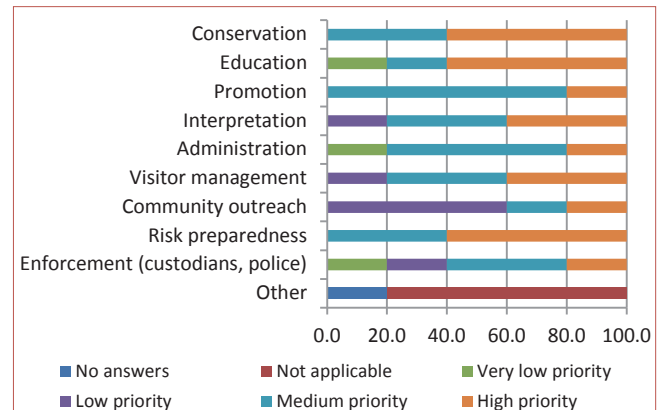


Figure 16. Capacity-building needs identified by the States Parties in North-East Asia.

In Japan, the Research Centre for Disaster mitigation of Urban Cultural Heritage in Ritsumeikan University which holds a UNESCO Chair¹⁰ offers a training course on Disaster Risk Management of Cultural Heritage every year which is open for professionals. Those who are involved in heritage conservation and management from other States Parties and who are looking for training opportunities may wish to apply for these courses.

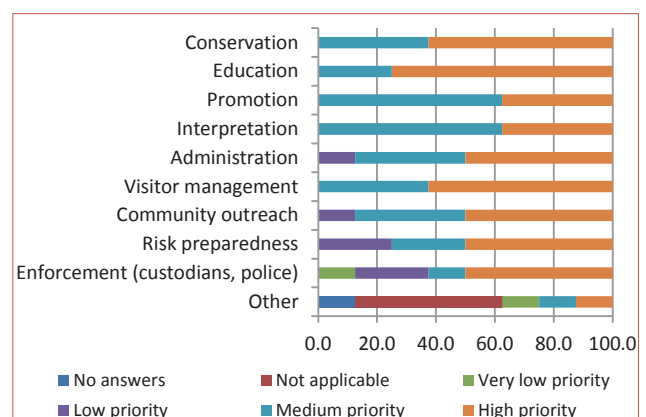


Figure 17. Capacity-building needs identified by the States Parties in South-East Asia.

9 The Institutes and Centres under the Auspices of UNESCO (so called Category II Centres) are not legally part of UNESCO but associated with the Organization through formal arrangements approved by the General Conference, which contribute to achieving UNESCO's Strategic Objectives.

10 UNESCO Chairs are part of UNITWIN (university education twinning and networking scheme)/UNESCO Chairs programme, launched in 1992 in accordance with a resolution adopted by the General Conference at its 26th session in 1991, to advance research, training and programme development in the Organization's fields of competence by building university networks and encouraging cooperation among universities.

Engaging various stakeholders including communities in the conservation and management of World Heritage can be done in various ways (see pages 48–51), but it needs special skills. World Heritage managers need to be skilled in ways of educating people about cultural and natural heritage.

Capacity-building on visitor management could be done through training workshops, but it would also be beneficial to exchange experiences with States Parties in North-East Asia, where properties are greatly affected by tourism but it is handled rather well.

The Pacific

The training needs in conservation and community outreach are equally high across the Pacific, and the training in community outreach is higher than in other subregions of Asia (Figure 18). The training needs are different between Australia and New Zealand and the Pacific Island States. The Pacific Island States place more importance on training in interpretation, administration and enforcement than Australia and New Zealand. The different training needs reflect the different current capacity of Australia and New Zealand and the Pacific Island States.

In Australia and New Zealand there are a number of universities and technical institutes that offer both university degree courses and short-term professional courses on the conservation and management of cultural and natural heritage. The New Zealand Department of Conservation offers online and field-based short courses at national level for both cultural and natural heritage. Australia has a number of universities which offer Bachelor’s and Master’s courses (for more information, see Annex).

On the other hand, Pacific Island States are looking for more opportunities for training and express the need for international

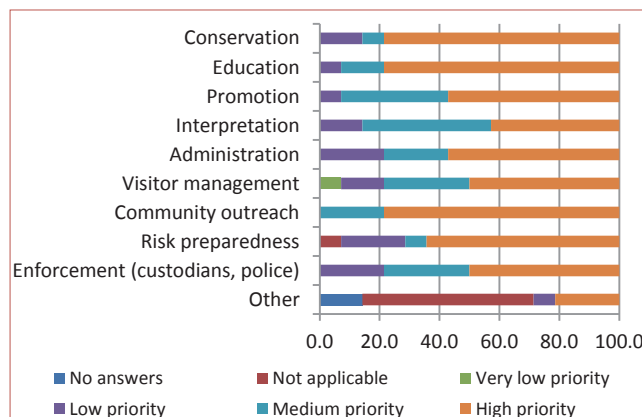


Figure 18. Capacity-building needs identified by the States Parties in the Pacific.

support in capacity-building. For example, Fiji mentions that some officials had attended short courses on cultural heritage management in Japan and Australia. Palau expresses the need for training in information technology that would enhance capacity in promotion and education, and Marshall Islands also calls for international support for capacity-building.

Asian Academy for Heritage Management and the Pacific Heritage Hub

The Asian Academy for Heritage Management (AAHM) is a network of institutions in Asia and the Pacific offering professional training in the field of heritage management established in 2001 by UNESCO and ICCROM. The objective of the AAHM is to strengthen professional capacity to sustainably manage heritage resources by providing a regional platform for institutional cooperation in capacity-building, research and exchange. It has 58 institutional members as well as other affiliates, with which it organizes various activities such as field schools.

In the Pacific, in order to promote capacity-building in the region, the Pacific Heritage Hub has been established with capacity-building as one of the functional areas. The Pacific Heritage Hub is still under development, its Interim Management Committee currently developing the terms of reference for the Hub. Specific activities of the Hub will be further determined but it is expected to be the main vehicle for capacity-building in heritage management for the Pacific Island States.

Awareness-raising and education for World Heritage

World Heritage Convention

Article 27

1. The States Parties to this Convention shall endeavour by all appropriate means, and in particular by educational and information programmes, to strengthen appreciation and respect by their peoples of the cultural and natural heritage defined in Articles 1 and 2 of the Convention.
2. They shall undertake to keep the public broadly informed of the dangers threatening this heritage and of the activities carried on in pursuance of this Convention.

Raising awareness among the various audiences of the importance and the need to preserve World Heritage is essential in order to gain support for the implementation of the World Heritage Convention. The Convention and its *Operational Guidelines* encourage the States Parties to raise such awareness through information and educational

programmes and the Secretariat to provide assistance to States Parties in developing activities aimed at raising public awareness (*Operational Guidelines*, Paragraphs 217–18). Communication is also one of the Strategic Objectives ('5Cs') of the World Heritage Convention. States Parties in Asia and the Pacific recognize and emphasize throughout the Periodic Reporting questionnaire the importance of involving various stakeholders, especially communities, in the conservation, protection and management of World Heritage properties. They also express the increasing need for raising awareness within communities in order to engender an exchange of information and to foster mutual interests and positive outcomes in the management of properties. Enhanced cooperation with the private sector, general public and tourism industry is also recognized as an area for improvement in the better management of World Heritage properties, in which awareness-raising and education play a crucial role. Awareness-raising and education are significant in mobilizing the actions of various people including youth, the general public, the private sector and communities.

General awareness of various audiences about World Heritage

There is a difference in the general awareness of different audiences about World Heritage in Asia and the Pacific (Figure 19). The level of awareness is reported to be highest within the tourism industry, followed by communities and decision-makers. Overall, the awareness among the private sector, general public and indigenous peoples, is not higher than 60%. In some cases, the private sector and youth are shown to have no awareness at all.

The level of awareness varies among subregions too. Awareness is generally very high in Australia and New Zealand, North-East and South-East Asia, where communities, the tourism industry, decision-makers, and the private sector all have 80–100% of fair to good awareness. The high awareness of communities and the public sector in these subregions suggests that there is room for increased cooperation with them. On the other hand, the awareness in West and Central Asia, South Asia and the Pacific Island States is reported to be rather low.

In most States Parties, the designation of a property as World Heritage itself has an impact on awareness-raising activities. Only at three properties is it reported that the designation

had no influence, all from South Asia. With regard to the awareness and understanding of the existence and justification for inscription of the World Heritage properties by various local groups within or adjacent to the World Heritage properties, the level of awareness is generally high (Figure 20). Across the region, the tourism industry and local/municipal authorities have the most excellent awareness of the justification for inscription. Visitors normally have more than 90% of excellent or average understanding about the justification for inscription. More than 90% of the local communities have average to excellent understanding in West and Central, South and North-East Asia, whereas the ratio becomes 65–80% in the Pacific and South-East Asia.

This shows that the awareness of various local groups in and around the properties and that of those who visit the properties is high. However, the general awareness-raising about World Heritage is particularly needed in some subregions and for certain audiences. How to raise awareness depends on the objectives and the target audiences, according to which the appropriate means and strategy should be chosen.

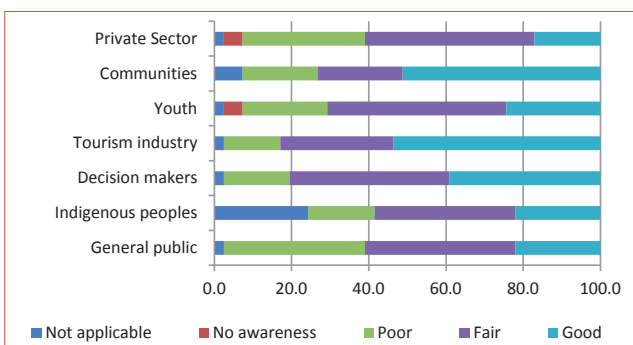


Figure 19. General level of awareness of World Heritage.

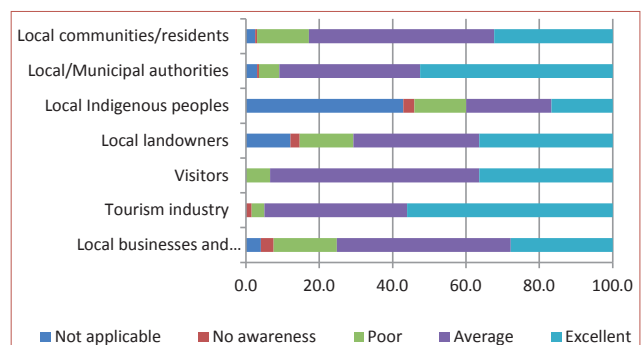


Figure 20. Level of awareness of justification for inscription.

Means of promoting World Heritage

There are various ways to present, promote and raise awareness of various audiences about World Heritage. Awareness can be raised most typically by, for example, publications, films and TV programmes, and media campaigns. Each means has its own effectiveness and attractiveness. Television is highly visible and it can reach a variety of audiences, whereas publications such as books, newspapers and magazines can provide more in-depth analysis. The internet is a means to allow a message to reach a global audience within seconds, and it can also make the communication interactive. Translation of publications allows many people to access information in their own languages, hence reaching more audiences. Postage stamps and medals are not only collectable but also heighten awareness of the importance of a subject and may also raise funds. Celebration of World Heritage Day can be directly joined and enjoyed by various people including communities.

Awareness-raising activities can be carried out at different levels from international to national, regional and local. The most effective means of awareness-raising can be chosen depending on the target audience, messages that need to be delivered, and cost-effectiveness. Also to be taken into account are the availability of technologies such as internet connection, and language barriers, in order to ensure that messages reach the audience.

In Asia and the Pacific, the most used media are publications, film and television, and the internet. Publications and the internet are more often used at national and international levels than regional or local levels. The internet is the most used to address an international audience. Film and television and media campaigns are a popular means at national and regional



A good awareness-raising strategy is essential to make sure that the message is received and understood by the audience. The strategy should normally take into account the message, objectives, target audience, approaches, media used, and styles. Only five States Parties in the region (Australia, Cambodia, China, Republic of Korea and New Zealand) state that they have an effectively implemented strategy for awareness-raising among different stakeholders about conservation, protection and presentation of World Heritage. Most that have strategies report that they are deficient in implementation (Figure 21).

Despite some deficiencies in the implementation of an awareness-raising strategy, many States Parties have planned education and awareness-raising programmes at the property level, which are linked to the values and management of the World Heritage property. At 152 properties there are programmes that are effective or at least partly meet the needs. Only at 37 properties limited and ad hoc awareness programmes are reported, and there are 9 properties where no programmes exist even though the need is identified, 6 of which are in South Asia (Figure 22).



Figure 21. Does the State Party have a strategy to raise awareness among different stakeholders about conservation, protection and presentation of World Heritage?

levels. Postage stamps and medals are less used. Translation and diffusion of publications by the World Heritage Centre are done for national and local audiences in all the States Parties in Central Asia, four out of five States Parties in North-East Asia, and six out of eight States Parties in South-East Asia. This indicates that the issue of language is a very important element to be considered in the awareness-raising campaign. World Heritage Day (16 November) is celebrated in 20 States Parties. Most of the use of media is for awareness-raising and providing information and to some degree for educational purposes. All media are most used at national level.

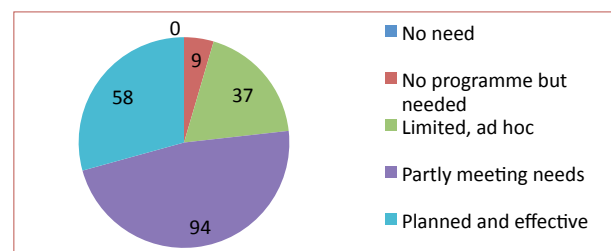


Figure 22. Is there a planned education and awareness programme linked to the values and management of the World Heritage property?

Education and World Heritage

In order to induce long-lasting change in people's attitudes and behaviours, education plays a crucial role. Education can not only provide information but also transmit and enhance necessary knowledge and skills, and stimulate motivation and willingness to make change. Education can be formal, where necessary components are incorporated into school curricula, or informal, which includes workshops and forums. Education can be given to children, adults or teachers (training of trainers).

The *Operational Guidelines* stipulate that the World Heritage Committee encourages and supports the development of educational materials, activities and programmes, and the States Parties are encouraged to develop educational activities relating to World Heritage with, wherever possible, the participation of schools, universities, museums and other local and national educational authorities (*Operational Guidelines*, Paragraphs 219–20).

In 1994, the UNESCO Young People's World Heritage Education Programme was launched by the UNESCO World Heritage Centre and the UNESCO Associated Schools Project Network (ASPnet)¹¹ in order to encourage young people to participate in heritage conservation by providing them with the necessary knowledge, skills and network. Under the World Heritage Education Programme, a number of activities have taken place, including the development of *World Heritage in Young Hands*.

World Heritage in Young Hands is an educational resource kit for teachers of all disciplines at secondary schools. It seeks to involve teachers across curricula in raising awareness of young people of the importance of World Heritage and to incorporate World Heritage into the curriculum in and out of the classroom based on an interdisciplinary approach. It uses participatory methods of teaching, involving students in research, collecting and analysing data, role-playing and simulation exercises, information and communication technology, taking part in well-planned field trips, and conducting preservation campaigns to acquire knowledge and appreciate their local heritage as well as World Heritage. The kit is available in all United Nations official languages as well as in a number of national languages including Filipino, Hindi, Indonesian, Japanese, Khmer, Korean, Laotian, Mongolian, Thai, Urdu, Uzbek and Vietnamese, and the translation is under way in Sinhalese and Tamil. For the Pacific countries, *Our Pacific Heritage* has been produced as a regional adaptation of the *World Heritage in Young Hands* kit.

In Asia and the Pacific, 18 States Parties (44%) participate in UNESCO's *World Heritage in Young Hands* programme (Figure 23), in five of which programmes are integrated in school curricula (China, Mongolia, Philippines, Republic of Korea, Viet Nam). Some States Parties are not participating in the

programme even though the kit is available in their national languages (India, Lao People's Democratic Republic, Pakistan, Thailand, Uzbekistan). Among the States Parties that have not participated, nine answer that they intend to participate. With regard to how the kit is utilized, among the States Parties that do participate in the *World Heritage in Young Hands* programme, Viet Nam mentions that several projects have been implemented within its scope such as volunteering for a World Heritage property, Ha Long Bay, in 2008–2009.

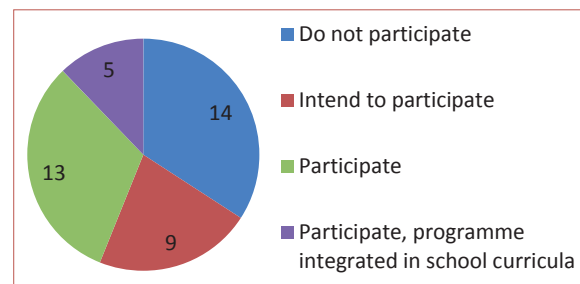
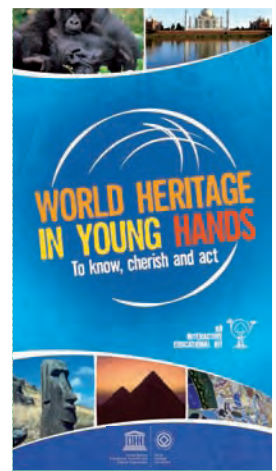
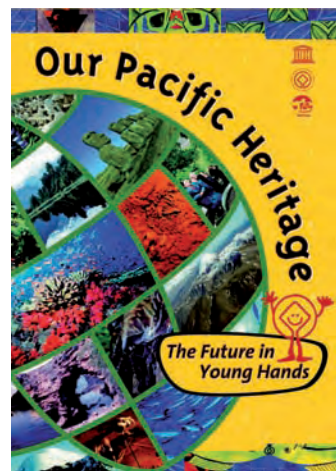


Figure 23. Level of participation in UNESCO's *World Heritage in Young Hands* programme.



In the Republic of Korea, the kit is distributed to ASPnet schoolteachers and is used in extracurricular activities relating to World Heritage, Education for Sustainable Development (ESD), and environment. The kit is used not only by 130 ASPnet schools but also others that teach World Heritage in the 4th grade of elementary school. In Indonesia, programme activities within the scope of *World Heritage in Young Hands* are currently limited to cultural heritage, but the authorities responsible for natural heritage also wish to join the programme. Niue comments that schools used the *World Heritage in Young Hands* kit when it was first introduced but did not continue. They wish to use a kit for the Pacific, which can be adapted to national needs. Solomon Islands mentions that although East Rennell is used as one of the case studies in *Our Pacific Heritage*, the kit is not made available at their schools and institutions. These comments show that it is very important to think of a strategy on how the available kits and

¹¹ The Associated Schools Project Network (ASPnet) is a global network of more than 9,000 educational institutions from 180 countries. It was launched by UNESCO in 1953 to promote peace and international cooperation through education.

resources can be best introduced and adapted in different systems and address their different needs.

There are various educational activities within and outside school programmes for both students and teachers. Of the various activities, the highest participation is seen in school visits to cultural and natural World Heritage properties, and such school visits have been organized more than once in 22 States Parties (70.7%) in the region. There are occasional courses and activities for students within school programmes, youth forums, activities on heritage within the framework of UNESCO Clubs and Associations, and they have been used more than once in around 40% of States Parties. Skills-training courses for students and courses for teachers for the use of the *World Heritage in Young Hands* kit are rather few.

Different strategies for awareness-raising are taken by different States Parties. For example, Australia has an interactive education programme called Australia's World Heritage Places Education Program, including teacher resources and information sheets developed for students in years five to ten, focusing on eighteen World Heritage properties in Australia. The programme aims to inspire students to explore their unique World Heritage properties and develop an appreciation of their values. In addition, a design competition for the Australian World Heritage website was organized in 2010, in which primary and secondary students participated. In the Philippines several publications on the Historic Town of Vigan have been made for the World Heritage education of primary and secondary schoolchildren, including a Homeowners' Manual. A private academic institution that offers primary and secondary education also published a book about World Heritage, integrating World Heritage instruction into its school system. In Turkmenistan, courses of local heritage as well as the World Heritage properties in the country have been introduced into the school curriculum at all levels of education. In 2009, the Democratic People's Republic of Korea, with support from

the UNESCO Office in Beijing, produced a CD-ROM on the general introduction to its World Heritage property, which is now used in local schools around the site. In Viet Nam, the Ministry of Culture, Sports and Tourism, in coordination with the Ministry of Education and Training and other related government agencies, initiated a programme called Child-friendly School from 2010 to 2011, which contributed to raising the awareness of students on safeguarding cultural and natural properties.

Higher education is another important instrument which not only trains current and future professionals of heritage management but also produces scientific and technical studies and research which are useful for the conservation and management of cultural and natural heritage. Forum UNESCO – University and Heritage (FUUH), jointly run by the World Heritage Centre and the Polytechnic University of Valencia (Spain), is an informal network of higher education that was set up to mobilize universities with cultural or natural heritage disciplines, to share knowledge and to reinforce cooperation between universities and heritage professionals. Both individuals (e.g. researchers, heritage professionals, academic staff, students) and institutions can be affiliated to the network, and affiliated universities could contribute to research and knowledge of World Heritage. In Asia and the Pacific, the Cultural Heritage Centre for Asia and the Pacific at Deakin University (Australia) and the Faculty of Architecture and Urban Planning at Shahid Beheshti University (Islamic Republic of Iran) are the affiliated institutions through Memoranda of Understanding. Universities that offer courses on heritage studies can be found in the list of training and educational programmes provided in the Annex.



Partnership with the private sector and local non-profit organizations

Why partnership?

General awareness of World Heritage discussed in the previous section shows that the awareness of the private sector and the tourism industry is relatively high in some subregions in Asia and the Pacific, and it is worth considering how to make the most of this good awareness and expand the partnership with them for the better conservation and promotion of World Heritage. Establishing a partnership for the implementation of the World Heritage Convention benefits both the World Heritage community (e.g. government agencies responsible for the implementation of the World Heritage Convention, National Commission for UNESCO, and UNESCO itself) and the partners from the private sector – the World Heritage community would be able to gain more resources for the conservation of World Heritage as well as raise awareness of World Heritage, whereas the private sector could demonstrate social responsibility, enhance reputation, and widen marketing in addition to becoming a partner with UNESCO and to take part in global action on World Heritage and sustainable development.

How we could cooperate

A PACT regulatory framework (available on: <http://whc.unesco.org/uploads/pages/documents/document-339-2.pdf>) adopted by the World Heritage Committee at its 29th session provides a basic guide in which partnerships are developed for the implementation of the World Heritage Convention together with other existing directives of UNESCO. UNESCO works with the private sector within the common framework of the United Nations Global Compact.

Partnership can be envisaged in various areas, which are in line with the Strategic Objectives of the World Heritage Convention:

- Conservation activities: This includes development and implementation of projects as well as participation in the preservation of sites.
- Promotion of World Heritage: This type of activity contributes to raising public awareness of World Heritage by reaching out to a wider audience.
- Mobilization of resources: Resources can be expertise or technique and partnership activities could provide experts, staff, equipment or training.
- Financial support: Financial support can be made by contributing directly to the World Heritage Fund, financing activities, or fundraising by benefiting from the wide business relations that a partner might have.

Partners from the private sector have strength and specialities in one or more of these areas. For example, media and publishing companies have excellent means and skills in promotional activities, whereas IT and technology companies have technologies that might be useful for the conservation and management of World Heritage properties. Along with

In 2002, the World Heritage Partnerships for Conservation Initiative (PACT) was launched by the World Heritage Committee for the establishment of partnerships. There are two objectives for this Initiative: (1) to raise awareness of World Heritage; (2) to mobilize sustainable resources for the long-term conservation of World Heritage, addressing mutually agreed issues and problems identified as priorities by the World Heritage Committee. PACT is underpinned by the following key principles: common purpose; transparency; bestowing no unfair advantages upon any partner; mutual benefit and mutual respect; accountability; respect for the modalities, aims and principles of the United Nations; striving for balanced representation of relevant partners from developed and developing countries with economies in transition; and maintaining the independence and neutrality of the United Nations system.

financial contributions, various types of expertise are much valued and appreciated in the implementation of the World Heritage Convention and the conservation and management of World Heritage properties.

To establish a partnership under the World Heritage PACT, several modalities are used, including the following:

- Letter of Intent: A non-binding letter which identifies possibilities for cooperation on a specific subject.
- Memorandum of Understanding: This sets out a commitment to a process intended to result in a more detailed Project Agreement, which sets out the terms and conditions of the cooperation including specificities relating to the use and flow of funds where appropriate and the use of the UNESCO and/or World Heritage name and emblem.
- Partnership Agreement: This provides a high level of institutional commitment over the medium term of around five years and under which specific Project Agreements may be developed.
- Funds-in-Trust Agreement: An agreement for extrabudgetary contributions received from governments, organizations (international, national or non-governmental), foundations, private companies or other sources in order to enable UNESCO to carry out on their behalf specific activities that are in line with the aims and policies of UNESCO.
- Fundraising Contract: This enables an entity to be engaged to raise funds for a particular project, in UNESCO's name.

An appropriate modality for each partnership should be decided depending on the policy, legal, financial and technical services involved.

Partnership for environmental, natural and cultural protection: Mercedes-Benz (China)



Area of cooperation: Conservation and management of World Heritage properties in China.

Period: 2007–2013 (Phase 1: 2007–2010; Phase 2: 2010–2013).

Amount: US\$3.4 million.

Modalities of partnership: UNESCO Funds-in-Trust.

Activities: The partnership finances a series of project activities such as training and capacity-building, research, formulation and implementation of conservation and management plans, property-specific conservation actions, public awareness-raising at selected World Heritage properties in China.

Property-specific activities include sustainable tourism development such as planning, capacity-building and improvement of site interpretation, environmental monitoring, and production of outreach materials (Mount Sanqingshan National Park); research on cultural landscape, research and establishment of waste water treatment, development of suitable historic building conservation methodology (Lushan National Park); training workshops, establishment of Geographical Information System (GIS) for monitoring and management enhancement, biodiversity research, improvement of site interpretations for visitors, production and distribution of brochures and videos for awareness-raising (South China Karst); training of staff, establishment of field monitoring stations, development of a management plan, community awareness-raising activities and youth education (Sichuan Giant Panda Sanctuaries – Wolong, Mount Siguniang and Jiujin Mountains).

World Heritage properties benefiting from this partnership: Mount Wuyi, Mount Sanqingshan National Park, Lushan National Park, South China Karst (Shilin, Libo, Wulong), Sichuan Giant Panda Sanctuaries - Wolong, Mount Siguniang and Jiujin Mountains (Ya'an Conservation Area).

Lessons learned: Visibility of the projects to the media would benefit both the partner and UNESCO. The recognition and acknowledgement of key governmental partners as well as local authorities are also important.

Partnership for promotion of World Heritage: Asiana Airlines (Republic of Korea)



Area of cooperation: Promotion of World Heritage properties in the Republic of Korea and Viet Nam.

Period: April 2012–March 2013.

Amount: US\$60,000 and an additional US\$60,000–80,000 which will be directly borne by Asiana Airlines.

Modalities of partnership: 1. Memorandum of Understanding (between Korean National Commission for UNESCO and Asiana Airlines); 2. Additional appropriation (between UNESCO Office in Hanoi and Korean National Commission for UNESCO).

Activities foreseen: 1. Promotional activities of World Heritage in Korea including the publication of the World Heritage Map in Korean (30,000 copies); 2. Support for the publication of promotional items (e.g. brochures, leaflets), instalment of informational panels and renovation of tourism information centres in three World Heritage properties in Viet Nam.

World Heritage properties benefiting from this partnership: 1. All World Heritage properties in Korea; 2. Complex of Huế Monuments, Hoi An Ancient Town, My Son Sanctuary (Viet Nam).



International cooperation

World Heritage Convention

Article 6

1. Whilst fully respecting the sovereignty of the States on whose territory the cultural and natural heritage mentioned in Articles 1 and 2 is situated, and without prejudice to property right provided by national legislation, the States Parties to this Convention recognize that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to cooperate.
2. The States Parties undertake, in accordance with the provisions of this Convention, to give their help in the identification, protection, conservation and presentation of the cultural and natural heritage referred to in

paragraphs 2 and 4 of Article 11 if the States on whose territory it is situated so request.

3. Each State Party to this Convention undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage referred to in Articles 1 and 2 situated on the territory of other States Parties to this Convention.

Article 7

For the purpose of this Convention, international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international cooperation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage.

International and regional cooperation for World Heritage

International cooperation is one of the very important elements in the World Heritage Convention. The Convention clearly stipulates that it is the duty of the international community as a whole to cooperate for the protection of World Heritage, and that the international protection of the world cultural and natural heritage is a system of international cooperation. International cooperation benefits States Parties and their cultural and natural heritage. Not only does it provide States Parties and site managers an opportunity to exchange information and experience but it also allows them to jointly tackle issues that are commonly shared and find solutions together. It should also be recalled that one of the objectives of Periodic Reporting is to provide a mechanism for regional cooperation and exchange of information and experiences between States Parties concerning the implementation of the Convention and World Heritage conservation.

International cooperation can take various forms. It could be done by establishing formal bilateral or multilateral agreements, or it could take place without any formal agreements. It could simply be done by exchange and/or distribution of information or by attending international workshops or sharing expertise in person. Or the cooperation could be made not only at the technical but also at the financial level. Each form of cooperation has its strengths and weaknesses, and the most appropriate modality should be chosen depending on the objectives of cooperation.

In Asia and the Pacific, 80% of the States Parties host and/or attend international training courses and seminars. Sharing expertise for capacity-building is used by 73% of the States Parties, followed by distribution of material and information (63%). The least used types of international cooperation are contributions to private organizations (20%) and participation in foundations for international cooperation (29%). Participation in other UN programmes is also relatively low (39%). Four States Parties state that they do not have any international cooperation for the identification, protection, conservation and preservation of World Heritage (Bhutan, Cook Islands, Marshall Islands, Myanmar).

International cooperation can also be achieved through the implementation of the World Heritage Convention itself. The preparation of a nomination as well as the conservation and management of transboundary/transnational properties, for example, provide an opportunity for international cooperation. The Uvs Nuur Basin was inscribed on the World Heritage List jointly by Mongolia and the Russian Federation, and various other serial transboundary nominations are currently being prepared including the Silk Roads and the Rock Art sites in Central Asia (see also pages 30–31). The implementation of Periodic Reporting also provided the States Parties in the region with a great opportunity to exchange information and experience, not just on the Periodic Reporting exercise but on various other issues relating to the implementation of the World Heritage Convention and the conservation and management of World Heritage properties.

Twinning arrangement as international cooperation

Twinning programmes and arrangements are also a valuable way of achieving international cooperation and improving the management capacity of World Heritage properties. A twinning arrangement can give site managers of both properties joining the programme an opportunity to learn from a similar case, exchange experiences and solutions to problems that the others might have, plan and implement joint activities for the benefit of both parties, and keep exchanging information, updates and progress over time.

Currently there are nine States Parties with World Heritage properties in Asia and the Pacific that report having been twinned with others at national or international levels. These are Australia, China, Democratic People's Republic of Korea,

Malaysia, Indonesia, Mongolia, New Zealand, the Philippines and Sri Lanka. For example, East Rennell (Solomon Islands) is working on a formal twinning arrangement with the Wet Tropics of Queensland (Australia). Fiji and Malaysia established a twinning relationship between Levuka, Ovalau (Township and Island), which is a property on the Tentative List and Melaka and George Town, Historic Cities of the Straits of Melacca. Sangiran Early Man Site (Indonesia) is twinned with Peking Man Site at Zhoukoudian (China), and there is also a twinning arrangement between Tongariro National Park (New Zealand) and Jeju Volcanic Island and Lava Tubes (Republic of Korea). Rice Terraces of the Philippine Cordilleras (Philippines) has been twinned with Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto) (Italy).

Twinning programme between Sangiran Early Man Site (Indonesia) and Peking Man Site at Zhoukoudian (China)

Criteria: Sangiran Early Man Site: (iii), (vi)
Peking Man Site at Zhoukoudian: (iii), (vi)

How it started: The twinning arrangement was initiated during the UNESCO Training Seminar on Conservation, Preservation and Management of Zhoukoudian and Sangiran World Cultural Heritage Sites held in Indonesia in 2002, whose objective was to share experiences and improve the knowledge on conservation and management of world prehistoric sites particularly Sangiran Early Man Site and Peking Man Site at Zhoukoudian.

The match: Both Sangiran Early Man Site and Peking Man Site at Zhoukoudian are situated in the same geographical region. The fossils unearthed in both properties are remnants of the same species *Homo erectus*, the most important species before human evolution. They are both important sites for the understanding of the origins of humankind and the evolution of man in East Asia.

Difference: Geologically speaking Sangiran Early Man Site is older than Peking Man Site at Zhoukoudian. Sangiran also contains a large amount of sediments whose details remain to be discovered, whereas the Peking Man Site is fully excavated.

Activities: An agreement regarding the cooperation in tangible and intangible culture between Indonesia and China was signed between the Director General of History and Archaeology (Indonesia) and the Director General of External Cultural Relationship (China) in Jakarta in 2007, in which both States Parties also agreed to manage the two World Heritage properties (Sangiran Early Man Site and Peking Man Site at Zhoukoudian) together. In 2010, the Indonesian Delegation visited China to discuss several programmes between the two countries which included the twinning arrangement between the two properties. Both States Parties agreed to start the twinning programme with a simple joint action in a working group in the field of research, publication, exchange of experts, and site management. No activities have been implemented yet.

Difficulties encountered: Both parties are aware of this twinning arrangement but the frequent changes of officials make it difficult to achieve substantial progress in the implementation of activities.

Impact and lessons learned: As international cooperation cannot be arranged at site level, the initiative and support of the national authorities are essential in order to make progress in the twinning programme.



Twinning programme between Rice Terraces of the Philippine Cordilleras (Philippines) and Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto) (Italy)

Criteria: Rice Terraces of the Philippine Cordilleras:

(iii), (iv), (v)

Portovenere, Cinque Terre, and the Islands

(Palmaria, Tino and Tinetto): (ii), (iv), (v)

How it started: The World Heritage Committee encouraged the State Party of the Philippines in 2005, based on the recommendation made by an ICOMOS/IUCN mission in 2001, to pursue the idea of a twinning programme.

The match: Both the Rice Terraces and Cinque Terre are 'organically evolving cultural landscapes', which represent the 'harmonious interaction between man and nature to produce a landscape of exceptional scenic quality that illustrates a traditional way of life that has existed for a thousand years and continues to play an important socio-economic role in the life of the community' (ICOMOS, 1997). Both properties face similar risks and challenges caused by socio-economic changes such as the flight of younger generations to cities, and the abandonment of agricultural activities by local communities which causes increasing hydro-geological risks and landslides.

Difference: Rice Terraces of the Philippine Cordilleras and Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto) have different socio-economic conditions. In the Philippine Cordilleras, economic sustainability is closely linked with land use for agriculture and with the utilization of natural and cultural resources, whereas the economy is sustained more by tourism and less by agriculture and traditional land use in Cinque Terre.

Activities: A study tour of the Philippine Delegation to the Cinque Terre took place in May–June 2009, which identified the areas for cooperation such as management framework, sustainable tourism, agricultural and agro-industrial sector, architectural and landscape conservation. A study tour of the Italian Delegation to the Rice Terraces followed in November 2009, where the Italian Delegation and the Ifugao stakeholders discussed ideas and activities. These ideas

and activities were then incorporated into the Framework of Action and adopted by both parties. During the study tour, a formal agreement on the twinning programme was signed between the Province of Ifugao and Province of La Spezia, together with the Ifugao Cultural Heritage Office and the Regional Directorate of Liguria for Cultural Heritage and Landscape (MiBAC). Several meetings took place in 2011 between the UNESCO National Commission of the Philippines and the Embassy of Italy, MiBAC, and the Asian Development Bank, where possible projects were discussed. An event planned for late 2012 on the anniversary of the Philippine-Italian diplomatic relations, with a photographic exhibition of the two properties, will also bring together local experts for cooperation as defined in the Action Plan.

Difficulties encountered: Changes in managerial and administrative members of staff, distance between the two properties, and lack of sufficient funding inhibited the active implementation of the Action Plan.

Impact and lessons learned: The case of Cinque Terre provided the Rice Terraces with some insights and an opportunity to exchange information on technological skills (such as GIS), rehabilitation of traditional buildings, cooperative systems, geo-techniques and hydrological studies, and economic stability through tourism. It was also noted that approaches to the conservation and management of cultural traditions implemented by the Ifugao would be worth replicating in Cinque Terre, where traditional values have slowly disappeared due to the expansion of tourism.

It has been noted from this experience that continual communication, as well as the engagement and support of the national authorities, has been crucial in promoting the twinning programmes in both countries and in exploring partnerships with international organizations. The catalytic role of the Embassies for the discussion of foreseen activities has also been essential.



3

Challenges for Conservation



Kinabalu Park, Malaysia © Evergreen

Summary of trends

West and Central Asia

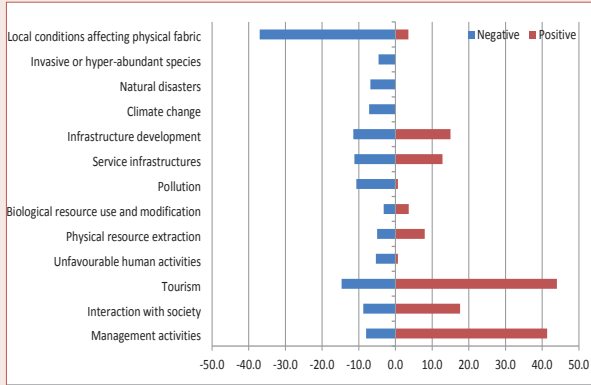


Figure 24. Factors positively and negatively affecting cultural properties in West and Central Asia.

North-East Asia

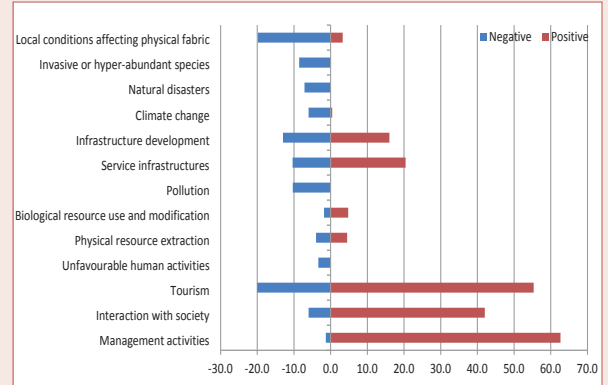


Figure 27. Factors positively and negatively affecting cultural properties in North-East Asia.

South Asia

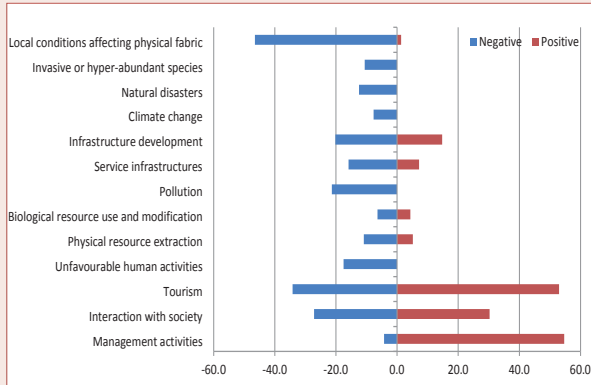


Figure 25. Factors positively and negatively affecting cultural properties in South Asia.

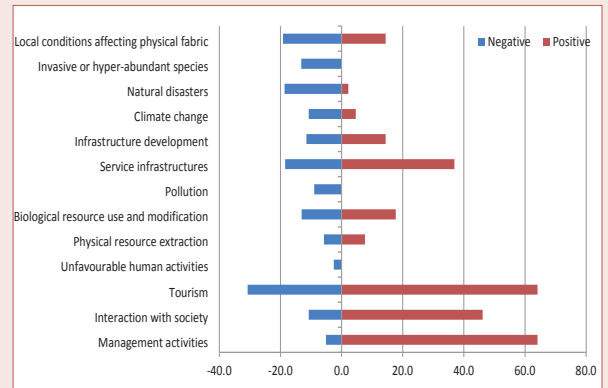


Figure 28. Factors positively and negatively affecting natural properties in North-East Asia.

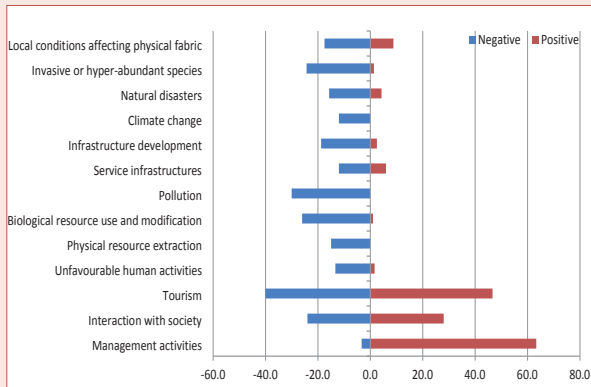


Figure 26. Factors positively and negatively affecting natural properties in South Asia.

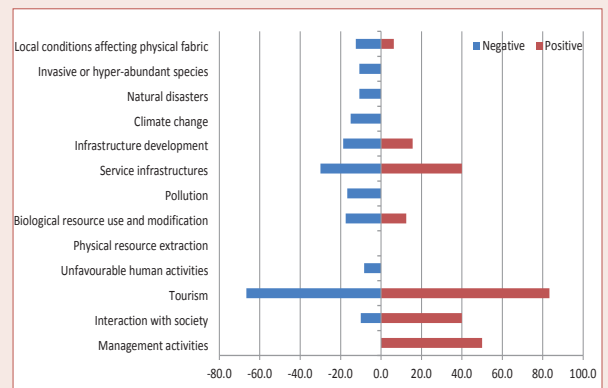


Figure 29. Factors positively and negatively affecting mixed properties in North-East Asia.

South-East Asia

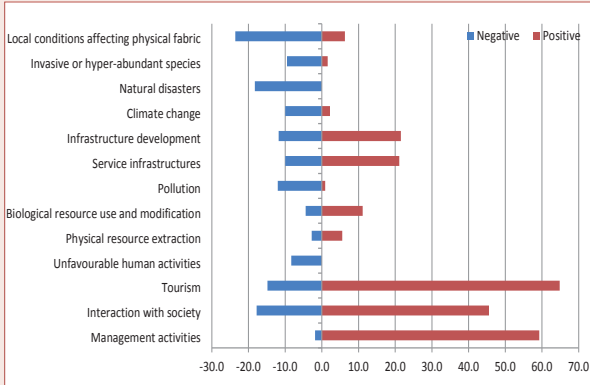


Figure 30. Factors positively and negatively affecting cultural properties in South-East Asia.

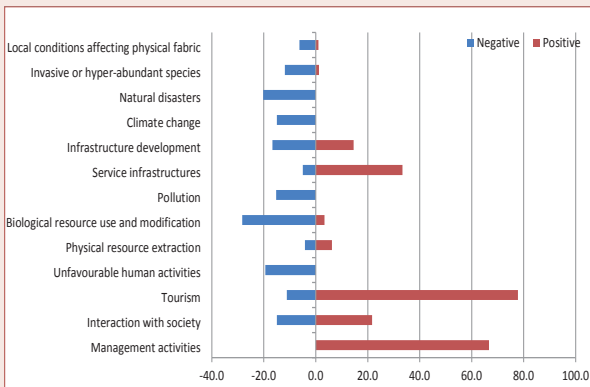


Figure 31. Factors positively and negatively affecting natural properties in South-East Asia.

Overall trends

Throughout the region, cultural properties seem to be affected negatively by the local conditions and by tourism. In a few cases interaction with society can also have an undesirable impact. The factors with positive impact on cultural properties are generally management activities, tourism and interaction with society. Often service infrastructure and infrastructure development are also considered to have a positive impact.

In the case of natural properties, the trends are somewhat similar with negative impact being mainly from tourism, with varying negative impact shown for pollution, invasive/alien species and the use of biological resources. The factors showing positive impact are clearly management activities, tourism and interaction with society.

Mixed properties show a similar trend with negative factors being mainly tourism; positive being management activities, tourism and interaction with society.

The Pacific

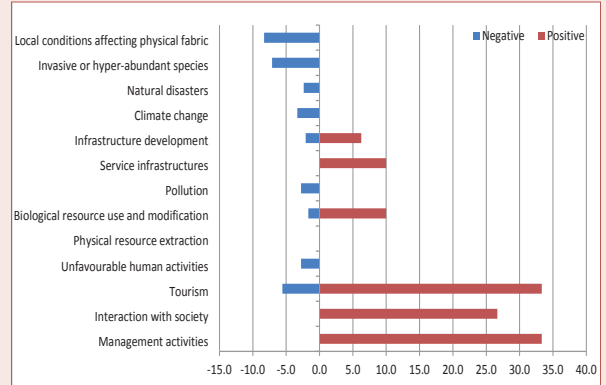


Figure 32. Factors positively and negatively affecting cultural properties in the Pacific.

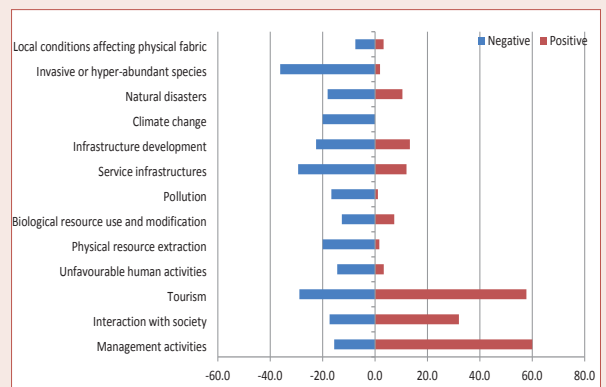


Figure 33. Factors positively and negatively affecting natural properties in the Pacific.

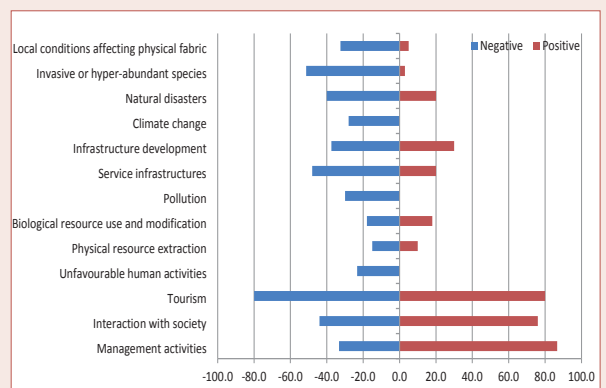


Figure 34. Factors positively and negatively affecting mixed properties in the Pacific.

Factors affecting the properties

Local conditions affecting physical fabric

Description of factors included under this category

Environmental and biological factors promote or contribute to the deterioration processes of the fabric of heritage properties. The decay cannot be attributed to a single factor and is often caused by a range of elements. The local condition of a World Heritage property is determined by its geographical location. However the impact of these factors on the World Heritage property is determined by the site-specific conditions and the type of attributes.

Factors considered under this category

- Wind (erosion, vibration)
- Relative humidity
- Temperature
- Radiation/light
- Dust
- Water
- Erosion and siltation
- Micro-organisms

Impact of local conditions on cultural properties

The local conditions of cultural properties usually have low impact over a long duration. These factors have probably been affecting the property right from its creation. The impact of these factors is magnified with even the smallest of changes. As the factors are closely interconnected, changes to one factor will lead to changes in the delicate balance between the others.

For example, when wind works together with dust, it can lead to heightened erosion of surfaces. This can especially be a concern when important attributes are inscriptions, painted surfaces or delicate ornamentation of monuments. Erosion caused by wind and water can create havoc with properties that have structures constructed of materials such as earth, that can disintegrate into dust or dissolve in water. Groundwater and humidity impact many historic structures, especially when there are daily or seasonal fluctuations. The construction materials absorb water and when the surface dries, the water transports and deposits dissolved salts on the surface – this is called efflorescence.

The impact of environmental factors is compounded by the biological factors. The biological factors of micro-organisms and any form of biological growth are closely associated with the temperature, relative humidity, water and light. The impact of the biological factors depends on the materials of the heritage structures.

The excessive growth of vegetation such as trees, bushes and larger plants on top of or near monuments and archaeological



Algae and lichen around seepage water.

remains can cause damage to the structure, especially by the penetration of roots. The growth of mosses, lichens and algae can affect the surfaces of materials. The growth of micro-organisms such as algae, bacteria, fungi and moulds can discolour and leave stains.

Impact of local conditions on natural properties

Under normal circumstances, natural properties have their natural values and assets intact and their ecosystems are functioning in dynamic equilibrium according to naturally operating processes and controls. Any local changes to this situation, whether they are the result of direct and deliberate human actions (such as loss of vegetation through cutting and clearing) or are an indirect result of such action (loss of vegetation through introduction of plant or animal pest species) can have serious consequences for natural heritage.

Some local impacts of temporary or limited effect may be recoverable, such as the ability to eradicate the micro-organisms, whereas others are permanent, as in the loss of soil through accelerated erosion. Natural systems also generally function within drainage basins (catchments) in which all elements are interrelated and connected. Thus, actions in the headwaters (e.g. mining or timber extraction) will have impact further downstream (e.g. siltation, pollution, and loss of riverine habitat and aquatic life). This can spread the extent of a localized impact over much broader areas.

Many impacts felt locally may be the result of much more widespread and generalized environmental changes. The obvious case is human-induced climate change, creating temperature and humidity regimes that are beyond the tolerance limits of natural ecosystems and species. Climate change impacts may be readily and immediately observable, such as loss of snow and ice from mountainous areas, whereas others are more subtle and operate over longer time spans, such as changing regimes in natural fires and cyclones, spread of diseases and pests, or changes in the feeding ecology and breeding success of animals. The rise in global sea level from atmospheric warming is perhaps the most insidious, serious and widespread of all climate change impacts and the most difficult to combat. It is already having major localized impact

on some low-lying coastal and island environments in the region, especially in the Pacific Ocean where both natural and cultural heritage is experiencing damage and loss and the livelihood of some communities is threatened.

Several of these impacts are discussed in more detail later in this chapter.

General response to local conditions

The local properties that affect the physical fabric of the World Heritage properties cannot be controlled. However, mitigation measures can be put in place to reduce the impact of these factors. The approaches can be divided into two main categories: the use of natural methods of protecting the property or the use of technology to create artificial environments.

There are numerous innovative methods that have been employed to protect monuments through shelters and plantations. The creation of natural or artificial ventilation of structures controls temperature and humidity. Certain local factors, especially micro-organisms and biological growth, require regular cleaning and maintenance – either physical removal or application of chemicals.

In respect to natural properties, there are many possible ways of combating detrimental localized impacts. These range from the more general improvements in catchment management that recognize and accommodate the interconnections among natural elements, to more specific actions such as controlling introduced alien species through quarantine restrictions, use of herbicides and pesticides, and eradication campaigns where conditions permit. Impacts on waters – rivers, lakes, wetlands, estuaries or near shore marine areas – can be the most difficult to address because their effects often spread more rapidly and widely than those affecting land, soil and terrestrial biota. Local impacts may be the result of locally occurring phenomena or events, or they may be a manifestation of external and much wider influences such as changes in the atmosphere. Protecting and restoring natural heritage from localized impacts due to global changes in the atmosphere, weather and climate are much more difficult and essentially rely on international cooperation and action.

Impact of local conditions in Asia and the Pacific

Local conditions affecting the physical fabric are considered by the States Parties to negatively affect a large percentage of cultural properties. This is especially the case in South Asia (46.5%) and West and Central Asia (37.0%). In South-East Asia, although almost a quarter (23.6%) consider the impact of local conditions to have a negative impact, there are still some who considered the impact to be positive (6.3%).

At Lumbini, the Birthplace of the Lord Buddha (Nepal) the archaeological remains are being threatened by groundwater and humidity, along with biological growth. Water and humidity is also negatively affecting the Ruins of the Buddhist Vihara at Paharpur (Bangladesh). The Historical Monuments of Makli,

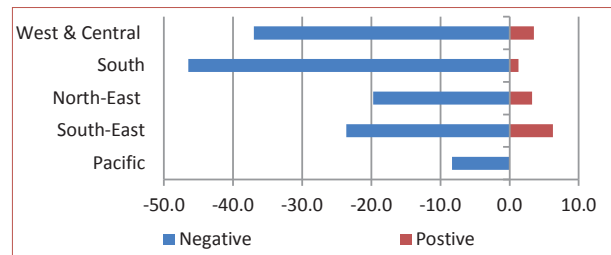


Figure 35. Impact of local conditions on cultural properties.

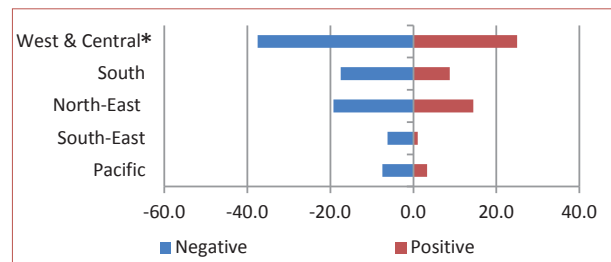


Figure 36. Impact of local conditions on natural properties. * Only one property in this subregion.

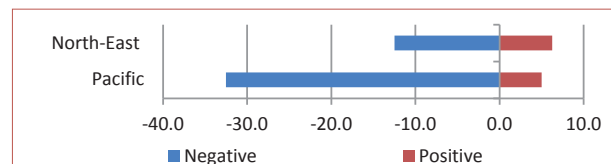


Figure 37. Impact of local conditions on mixed properties.

Thatta (Pakistan) was included in the List of the 100 Most Endangered Sites of the World Monuments Watch in 2005, owing to the effects of the severe local climatic conditions (rain, wind, etc.). The property also suffers from loss of groundwater and topsoil erosion caused by the shift of the riverbed.

The Minaret and Archaeological Remains of Jam (Afghanistan) is being affected by the erosion of the soil underneath the minaret caused by the river currents. Due to the rising groundwater and weathering (rain and frost), various structures such as the Ak Sarai Palace are being threatened.

In South-East Asia various properties are affected by erosion, particularly during the monsoons. This has been noted in Sangiran Early Man Site (Indonesia), Complex of Huế Monuments (Viet Nam) and Vat Phou and Associated Ancient Settlements within the Champasak Cultural Landscape, and the Town of Luang Prabang (Lao People's Democratic Republic).

In North-East Asia the properties such as Historic Ensemble of the Potala Palace, Lhasa (China) are affected by humidity. The excavated caves of the Peking Man Site at Zhoukoudian (China) are threatened by erosion and plant growth.

Natural properties are generally considered to be less affected by the local conditions, with fewer than 20% of properties affected (other than with the single property in West and Central Asia). This is partly because in the case of natural heritage, it is quite often difficult to localize these factors and external factors that cause these impacts need to be addressed, whereas in the case of cultural heritage, it is still possible to address these impacts at the local level.

Invasive or hyper-abundant species

Description of factors included under this category

Invasive or hyper-abundant species impact the delicate balance of ecosystems and are a major threat to indigenous biodiversity. Very often invasive species are introduced unintentionally when seeds, eggs, or sometimes plants and animals themselves are transported to a new environment. If these plants and animals are used to more extreme conditions of rainforests or deserts, they might reproduce faster than the indigenous species. This is often the case when the predators of that specific species are not found in the new ecosystem. There have also been many cases where particular species of plants and animals have been intentionally introduced in efforts to provide benefits for the ecosystem or society. This may be for the rehabilitation of ecosystems, biological control of pests or introduction of new species for harvesting or hunting. For example, Scottish heather, which now dominates the vegetation of Tongariro National Park in New Zealand, was introduced to provide habitat for hunting of ground birds.

Factors considered under this category

- Translocated species (fish stocking, inappropriate plantings, introduced soil etc., dieback due to pathogens)
- Invasive/alien terrestrial species (weeds, feral animals, rodents, insect pests, bird pests, diseases/parasites, micro-organisms)
- Invasive/alien freshwater species (weeds, invertebrate pests, fish pests, diseases/parasites, micro-organisms)
- Invasive/alien marine species (weeds, invertebrate pests, fish pests, diseases/parasites, micro-organisms)
- Hyper-abundant species (naturally occurring species impacting ecosystem by virtue of ecological imbalance)
- Modified genetic material
- Pests

Impact of invasive or hyper-abundant species on cultural properties

Invasive and hyper-abundant species of plants and animals could have direct impact on cultural landscapes and mixed World Heritage properties in the same way as they impact natural heritage properties.

Invasive or hyper-abundant species could, however, also affect cultural heritage properties and monuments if these species of plants and animals lead to the physical deterioration of the material used for historical structures and archaeological vestiges. This is especially the case where plants with extensive roots or vines grow near or on top of heritage structures. The large abundance of pests such as rodents can clearly impact not only the structures but also the use of historic buildings by destroying artefacts and various construction materials. Major detrimental forms of insects for cultural properties include termites.



Damage on wooden structures caused by termites.

Impact of invasive or hyper-abundant species on natural properties

The control or elimination of invasive alien species of plants and animals are problems for management of natural properties throughout the region. In World Heritage properties in New Zealand, for example, problems relate mainly to introduced rodents, mustelids, opossum, rabbits, deer, feral goats and pigs, which destroy native vegetation and have serious impacts for native birds and insects. Weed species affect native plant communities, the most problematic being shrubs such as gorse and broom, heather and climbing vines. In the Pacific Islands, plant disease species are becoming more prevalent and affecting crops such as taro, which is a component of the natural ecosystem as well as a staple food. Many properties in the region report problems with invasion of water weeds.

General response to invasive or hyper-abundant species

The control and eradication of invasive species of plants and animals remain matters of concern for sustained management intervention by World Heritage site managers in the region. Invasive or hyper-abundant species must first be identified and decisions on response should be taken with the best available knowledge. Early detection and response allow for the best and the least expensive results. The invasive species must be first contained and then eradicated. There are some good examples of successful control and eradication. In New Zealand the opossum is controlled through long-term application of poisons and rats have been eliminated from some island sanctuaries. Feral mammals have been shot or live-captured and translocated. Many weed plant species cannot be eradicated and must be subject to long-term

control measures. The introduction of new invasive species must be prevented. Priority should be given to indigenous species and ecosystems. The adverse effects of the possible use of chemicals on beneficial species and the environment must be accounted for. The approach and monitoring must be coordinated with the community as well as enforcement agencies backed by appropriate legislative frameworks.

Impact of invasive or hyper-abundant species in Asia and the Pacific

Invasive or hyper-abundant species are shown to predominantly affect natural properties and their impact is almost always negative.

States Parties throughout the region report that less than 10% of their cultural properties are impacted by invasive or hyper-abundant species, except in South Asia (10.6%). These references would be mainly to do with pests that affect the cultural heritage. There is, however, also an impact of alien terrestrial species on various cultural properties. Compared with other factors, there are few cultural properties affected by invasive or hyper-abundant species.

The situation with natural properties looks very different. The Pacific indicates a high percentage of natural properties being negatively impacted by mainly invasive terrestrial species. Macquarie Island (Australia) has been impacted by non-native feral rabbits and rodents on the vegetation and wildlife. The negative impacts of this overpopulation are in particular the destruction of hillside vegetation such as tall tussock (*poafoliosa*) and Macquarie Island cabbage (*stilbocarpapolaris*), which in turn leads to more frequent and severe landslides and erosion gullies. In the Wet Tropics of Queensland (Australia) problems have been caused by exotic plant and animal species, introduced for agricultural or domestic purposes, which have



Early stage of *prosopis* invasion.

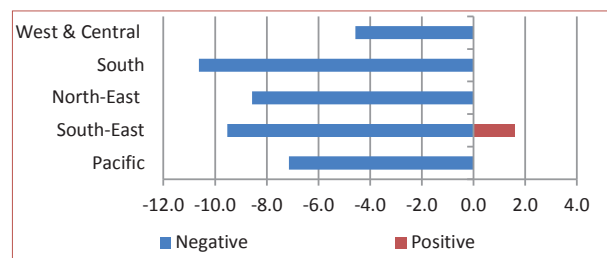


Figure 38. Impact of invasive or hyper-abundant species on cultural properties.

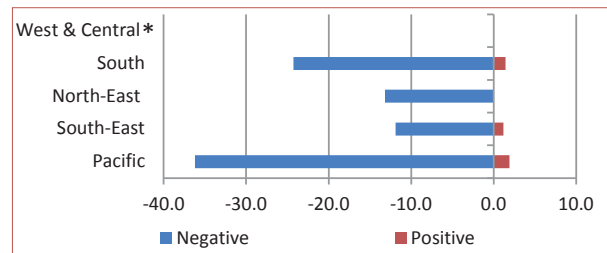


Figure 39. Impact of invasive or hyper-abundant species on natural properties.

* Only one property in this subregion.

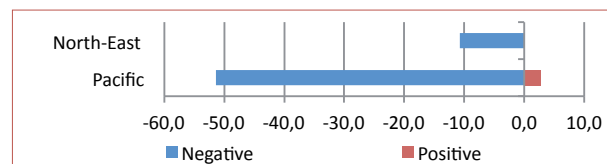


Figure 40. Impact of invasive or hyper-abundant species on mixed properties.

now become weed, feral or invasive and threaten native plant and animal communities. In East Rennell (Solomon Islands) logging operations located close to the property have introduced rats and invasive land snails that could present a serious threat to native fauna in the property.

South Asia indicates that a substantial number of their properties face the impact of invasive or hyper-abundant species (24.3%). Keoladeo National Park (India) has been tackling the impacts of various invasive species such as *paspalum distichum* (knotgrass), water hyacinth and *prosopis juliflora*, an invasive species of thorny bushes and small trees of Central and South American origin. To control this threat, a systematic plan for the regular monitoring and removal of *prosopis juliflora* was formulated with the involvement of local communities. In Manas Wildlife Sanctuary (India) invasive plants and fires may be contributing to the siltation and drying of the alluvial grasslands which are particularly important for pygmy hog. In Chitwan National Park (Nepal) habitat degradation is occurring through the spread of invasive species such as water hyacinth, *Mikania* and tall grasses.

Over 50% of the mixed properties in the Pacific have shown negative impact of invasive or hyper-abundant species. Cane toads, *Bufo marinus*, introduced to Australia for controlling insect pests of sugar cane plantations in the State of Queensland, have serious impacts on indigenous aquatic life and small terrestrial wildlife. They embarked on a westward invasion of northern Australia. They reached Kakadu National Park and are threatening Purnululu National Park (Australia).

Natural disasters

Description of factors included under this category

Various forms of natural hazard can lead to disasters. These hazards occur under extreme climatic or geological conditions. Very often hazards are interlinked and can occur successively. The relationship between earthquakes that occur below the ocean and the resulting tsunamis is well known. Earthquakes are often followed by fires, landslides and possibly even flooding.

The magnitude of a disaster depends on the vulnerability of the heritage property. Hazards are natural phenomena which cannot be controlled by humans. However, the impact and the degree of destruction can be mitigated to some degree, depending on the level of preparedness.

Factors considered under this category

- Earthquake
- Storm (tornado, hurricane/cyclone, gale, hail damage, lightning strike, river/stream overflow, extreme tides)
- Flooding
- Tsunami/tidal waves
- Avalanche/landslide
- Volcanic eruption
- Fire (altered fire regimes, high-impact fire suppression activities, lightning strikes, accidental fires, e.g. dropped cigarettes, not ecological)

Impact of natural disasters on cultural properties

Natural hazards can have devastating effects on cultural properties. Many cultural properties have been exposed to the wrath of nature for centuries, leaving the scars. In some cases the destruction has been so extreme that only traces of the original monument or site remain. Some such sites might have been destroyed and buried for centuries, only to be unearthed as archaeological sites. Some cultural heritage has been victim to recent disasters.

Earthquakes are one of the most destructive forces of nature and many cultural properties are found in seismic active areas. Various cultures have developed certain responses to earthquakes, but in many cases, monuments and entire cities have had to be reconstructed. In certain cases, cities have been abandoned after being severely damaged.

Storms, flooding and extreme events such as tsunamis (tidal waves) can destroy particular monuments or wash away entire settlements. This can affect not only the physical structures of historic buildings and archaeological sites, but also social and intangible values based on functions, craftsmanship and beliefs.

Avalanches and landslides can directly affect the physical heritage structures. In many cases, these can dam rivers which



Damage to Bam and its Cultural Landscape (Islamic Republic of Iran) caused by an earthquake.

can then lead to flash-floods. Volcanic eruptions cause lava flow but also great amounts of ash to be ejected into the atmosphere. The falling ash can cover monuments and when dissolved in water can create an acidic solution which corrodes materials such as stone and lime.

Fires are sometimes caused by lightning, but very often indirectly by human activities and vulnerabilities of properties. Depending on the vulnerabilities of the cultural properties, fires are very often ignited by other natural disasters.

Impact of natural disasters on natural properties

Extreme, high-magnitude natural events also impact on natural properties. However, it must be appreciated that these are essentially naturally occurring events and that functioning ecosystems are normally attuned to them. For example, some forest and grassland ecosystems are fire-climax communities controlled by natural fire regimes, and riverine ecosystems may be unaffected by (or indeed enhanced by) periodic flooding. The influence of periodic avalanching on vegetation types and plant growth can play an important role in the feeding ecology of some alpine wildlife species.

Extreme events become hazards or disasters when they threaten or destroy human life and property. The magnitude and frequency of geological hazards such as earthquake, tsunami and volcanic eruption, and of extreme weather events such as cyclones, are for the most part still unpredictable and therefore extremely difficult to guard against. Other weather-related events such as avalanches can be better predicted and controlled to minimize loss. A balance must be struck between artificially controlling natural events and minimizing hazards for residents and visitors in World Heritage areas.

There is mounting evidence that the changing climate has increased the frequency and/or severity of extreme high-magnitude weather events such as cyclones, and have changed their geographical distribution, bringing new areas under their influence. Oceanic islands of the Pacific are among

the most prone to cyclones in the region and the least able to recover from their destructive effects. Of particular concern is a situation where cyclonic storms destroy the homes and food crops of people living in and managing the World Heritage properties, therefore threatening their livelihood and survival – such as occurs on East Rennell in the Solomon Islands.

General response to natural disasters

As it is not always possible to control natural disasters, the most effective response for World Heritage properties is preparedness. This means that the probability and scale of the hazards must be understood. The vulnerability of the heritage property to the specific hazard must be studied to ensure that the impact on the main attributes expressing the Outstanding Universal Value of the property is mitigated as much as possible. In extreme cases, it would be necessary to consider the need for restoration or even reconstruction based on detailed documentation.

Importantly, it is necessary to consider and weigh up the realities of nature on the one hand and needs for safety of people on the other. All World Heritage site managers should institute a visitor hazard safety plan that recognizes all threats to visitors from extreme events and provides measures for monitoring and minimizing the associated dangers. The *Operational Guidelines* also recommend that States Parties include risk preparedness as an element in their site management plans and training strategies (Paragraph 118).

For natural World Heritage properties there are situations where conflicting views are held about the appropriateness of controlling natural events. A good example is the volcanic Tongariro National Park (New Zealand) where a controversial but very effective early-warning system has been installed to monitor critical changes in the water level of a summit crater lake and massive rock barriers are constructed on the slopes of the volcano to minimize the destructive effects of lahars (volcanic mudflows). This interference with natural event, and with cultural value, has been justified on the grounds of preventing loss of life among skiers and other visitors to the park and loss or damage to facilities, including public roads, bridges and buildings outside the park.

Impact of natural disasters in Asia and the Pacific

The impact of most different kinds of natural disasters on cultural properties has been indicated as highest in South-East Asia (18.3%) followed by South Asia (12.5%). The catastrophic impact of natural disasters on cultural properties has however been seen throughout the region. For example, Bam and its Cultural Landscape (Islamic Republic of Iran) was inscribed on the List of World Heritage in Danger due to severe damage to the property caused by the earthquake in December 2003, and development pressures relating to the post-disaster reconstruction process. At Prambanan Temple Compounds (Indonesia), serious damage was done by the earthquake of 2006 to all six temples in the property, the worst affected

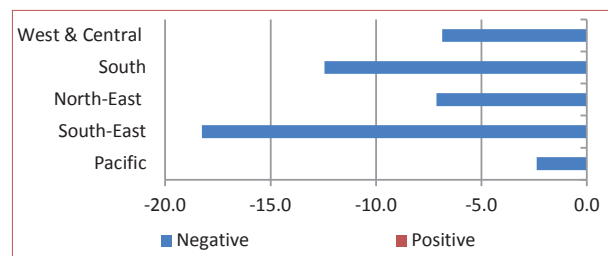


Figure 41. Impact of natural disasters on cultural properties.

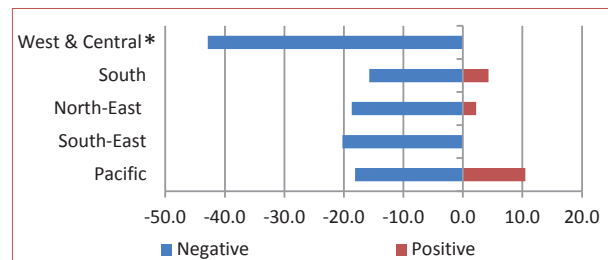


Figure 42. Impact of natural disasters on natural properties. * Only one property in this subregion.

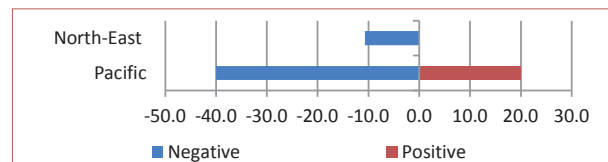


Figure 43. Impact of natural disasters on mixed properties.

being the main temple of Siwa. Earthquake-related tsunamis have also impacted on cultural properties. The 2004 Indian Ocean tsunami affected many properties along the coastline, such as the Tropical Rainforest Heritage of Sumatra (Indonesia), Old Town of Galle and its Fortifications (Sri Lanka) and the Group of Monuments at Mahabalipuram (India).

Flooding and erosion caused by rivers have impacted several properties, such as the Archaeological Ruins at Moenjodaro (Pakistan) and the Minaret and Archaeological Remains of Jam (Afghanistan). In the case of the Archaeological Ruins at Moenjodaro, an International Safeguarding Campaign was organized by UNESCO from 1974 to 1997 to mobilize funds for large-scale conservation measures to protect the property from flooding. Kathmandu Valley (Nepal) is threatened by earthquake, and lightning that struck and damaged the Pratappur Temple in the property. There are various cases of fire destroying monuments such as the Yuzhen Palace, part of the Ancient Building Complex in the Wudang Mountains (China). The volcanic eruption of Mount Merapi in 2010 blanketed the Borobudur Temple Compounds (Indonesia) with volcanic ash.

Volcanic eruptions have also impacted the mixed World Heritage of Tongariro National Park (New Zealand) where the eruption of Mount Ruapehu from 1995 to 1996 caused a large build-up of ash that blocked the outlet of the summit Crater Lake. The Wenchuan earthquake in 2008 affected to some degree the ecology of Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiain Mountains (China). The Sundarbans (Bangladesh) have periodically been impacted by cyclones such as cyclone Sidr in 2007.

Climate change

Description of factors included under this category

Climate change takes into account the increased transformation in global climatic conditions due to human activities. The disruption of the climatic equilibrium has had an impact on temperature and rainfall. This can lead to the alteration of the local climatic conditions, whereby both natural and cultural heritage properties are affected. Some of the most dramatic impact is being caused by the melting of the icecaps and glaciers which raises the level of oceans with devastating impact on low-lying areas and island states.

Factors considered under this category

- Drought
- Desertification
- Changes to oceanic waters (changes to water flow and circulation patterns at local, regional or global scale, changes to pH, changes to temperature)
- Temperature change
- Other climate change impacts

Impact of climate change on cultural properties

Climate change can have a direct impact on various types of cultural properties. Some of the most directly impacted would be the archaeological sites that have been preserved under stable conditions. The archaeological vestiges become more vulnerable with the increased fluctuation or change in the hydrological, chemical and biological conditions.

Historic buildings and structures that have survived centuries under specific climatic conditions can begin to deteriorate at an accelerated pace once these climatic conditions begin to fluctuate. This is especially the case with the water content of the ground and air which can cause direct erosion or lead to impacts through efflorescence. Changes in climate can also lead to increased biological infestation and invasion of pests that impact organic materials such as timber. The effect does not restrict itself to the main structure, but also the finishes, ornamentation and often the movable culture heritage contained within the structure.

Climate change can also initiate flooding or storms that have a direct physical impact on objects of cultural heritage. The materials used to build historic structures and archaeological vestiges are often vulnerable to prolonged immersion in water caused by floods or storms, leading to erosion and related biological attack. In contrast, desertification can lead to salt weathering and erosion of cultural properties.

Impact of climate change on natural properties

Changes in the climate and in atmospheric carbon dioxide levels have already had observable and widespread impacts on species



Sagarmatha National Park (Nepal) has been greatly affected by climate change.

and ecosystems. While some are showing a capacity for natural adaptation to change, others are displaying marked negative impacts. The situation will worsen. Current atmospheric warming, with a temperature increase of 0.75 °C in global mean surface temperature relative to pre-industrial era levels, is modest compared with future predicted increases of 2–5 °C.

The ecosystems most vulnerable to change are aquatic freshwater habitats and wetlands, mangroves, coral reefs, polar and alpine systems and cloud forests. Endemic species of plants and animals are particularly vulnerable because they normally have very narrow climatic and geographical ranges, limited dispersal opportunities and many other pressures. Climate change experts have suggested that approximately 10% of species will be at increasingly high risk of extinction for every 1 °C rise in atmospheric temperature. Continued climate change will have predominately adverse and often irreversible impacts on many ecosystems and their services, with significant negative social, cultural and economic consequences. Although there is uncertainty about the extent and speed at which climate change will affect biodiversity, and determine the thresholds at which ecosystems will no longer function normally, there is an urgent need to identify the most vulnerable species and ecosystems, assess their risk to changing climates and implement appropriate mitigation measures.

Among the many consequences of climate change, perhaps the most insidious and problematic is global sea level rise, which is already impacting low-lying coasts and islands in the region, particularly the atolls of the Pacific Ocean, many of which are only metres above sea level. Observable impacts include inundation of land, die-off of vegetation and crops due to rising groundwater levels and salt contamination of freshwater systems. Higher sea levels may also exaggerate the impacts of tsunamis and storms – and increased storminess appears to be one of the many by-products of changing weather systems.

General response to climate change

Climate change is a global phenomenon but it has very specific consequences at the local level for managers of World Heritage properties. Consequently, the management and response need

to be planned at the international and national levels as well as the local level.

Properties under threat from climate change must use their management plan as a key tool to intervene and respond to the threats, and to establish the required coordination of effort at all levels of governance and management. There are various management requirements and measures for ensuring an effective response, and ongoing monitoring and maintenance are critical components of an overall preparedness plan.

Management authorities for World Heritage properties should be alert to impacts associated with changing climate and associated environmental changes. This requires substantial effort in monitoring the condition and trend of natural plant and animal communities, physical processes and ecosystem functioning. Appropriate education should be provided and traditional skills must be enhanced using training programmes. Local knowledge of the naturally functioning ecosystems and the original condition of cultural attributes can allow for a better adaptation response to the impacts on natural and cultural heritage from changes in climate.

The case of fire management in Australia is a good illustration of management adaptation to climate change impacts. Increased temperatures and frequency of droughts are causing changes in natural fire regimes, which have consequences for the natural vegetation and wildlife adjusted to fire as a controlling agent in the environment. Required changes in fire management intervention include enhanced fire fighting programmes, fire suppression measures and the ecological use of deliberate fires.

Impact of climate change in Asia and the Pacific

The impact of climate change on cultural properties is considered to be highest in South-East Asia, followed by South Asia and West and Central Asia. At the Rice Terraces of the Philippine Cordilleras (Philippines), where the abandonment of terraces due to neglected irrigation systems had been an issue, all major communal irrigation systems (CIS) in Ifugao were rehabilitated using available traditional building materials. They are now fully operational and yields from rice cultivation have increased. However, it was noted that, due to climate change, the upgraded runoff CIS to larger water-impounding basins was necessary to have sufficient water supplies.

Even for natural properties the percentages are as high as 20% for the Pacific. (It must be noted that the single natural property of West and Central Asia considered climate change as a clear negative factor.) The natural properties in the Pacific such as East Rennell (Solomon Islands) have been affected by the rising water levels of the ocean, causing rising water levels and salination of the large freshwater lake, a former lagoon that remains connected to the sea. Climate change is considered as a major negative factor affecting natural properties in Australia, such as Gondwana Rainforests of Australia, Great Barrier Reef and Wet Tropics of Queensland.

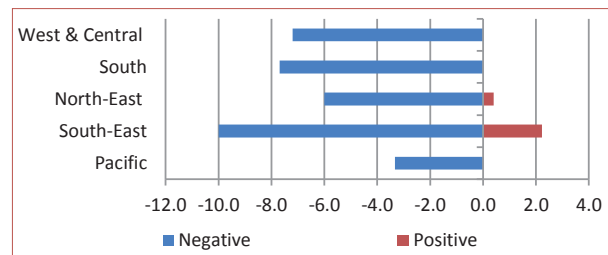


Figure 44. Impact of climate change on cultural properties.

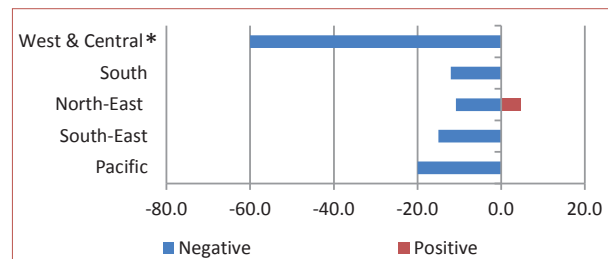


Figure 45. Impact of climate change on natural properties.
* Only one property in this subregion.

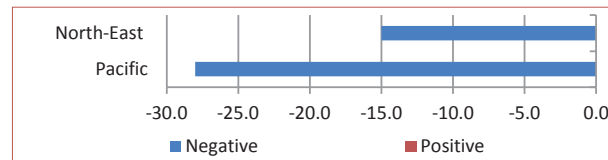


Figure 46. Impact of climate change on mixed properties.

In South-East Asia, it is reported that 15% of natural properties are affected by climate change. Tubbataha Reefs Natural Park (Philippines) has established a programme of ecological monitoring, with emphasis on the effects of climate change on sea surface temperature, coral bleaching, storm frequency and other factors that could be related to climate change.

In South Asia, the impact of climate change is seen as negative in both coastal and mountainous areas. In the Sundarbans (Bangladesh) a five-year project was begun in 2011 Sundarbans Environmental and Livelihoods Security (SEALS), which includes logistic support for ecological monitoring and documenting the impact of climate change on the Outstanding Universal Value of the property such as through sea-level rise, increased cyclone frequency and altered fresh-water flow into the property. In Sagarmatha National Park (Nepal) the threats from glacial lakes outbursts are recognized by the State Party and local communities

The Outstanding Universal Value of Shiretoko (Japan) is related closely to the presence of sea ice in the Northern Hemisphere polar region and there are observable changes in the extent and character of the polar sea ice cover.

Mixed properties indicate very high percentages of negative impact due to climate change. The Pacific indicates 28% while even North-East Asia shows 15%. In properties such as the Tasmanian Wilderness (Australia) the risks of climate change to the property were identified and assessed, and this information is incorporated in an active monitoring programme and risk management strategy.

Infrastructure development

Description of factors included under this category

The significance of World Heritage properties attracts investment and development. Very often these developments are directly related to improving the accessibility of the properties. The construction of roads, bridges and tunnels have impacted many World Heritage properties. Uncontrolled development such as housing and industries (especially polluting industries) can affect the heritage value. If there is a lack of understanding and prioritization for conserving the property, new construction and encroachments can destroy the natural environment and the historic landscapes, leading to the deterioration and loss of setting. Infrastructure development is closely related to providing for visitors (see 'Tourism', pages 80–81).

Factors considered under this category

- Housing (urban high-rise, encroachment)
- Commercial development (skyscrapers, large shopping malls, encroachment/changes to skyline, etc.)
- Industrial areas (individual factories, industrial areas/parks, encroachment/changes to skyline, etc.)
- Ground transport infrastructure (roads, car parks, railways, including easements, transport depots)
- Air transport infrastructure (airports, airstrips)
- Marine transport infrastructure (harbours)
- Underground transport infrastructure
- Effects arising from use of transportation infrastructure (vehicle traffic on roadways, shipping traffic in shipping routes, air traffic)

Impact of infrastructure development on cultural properties

Infrastructure development has been one of the major threats to cultural World Heritage properties. These activities can take place within the boundaries, especially in cultural landscapes or historic urban areas. The historic fabric and landscapes can be threatened by new building construction and the introduction or the widening of roads. There are often pressures for commercial developments within the prominent areas of historic towns.

The impact of infrastructure development is very often found to be coming from outside the boundaries, either from the buffer zone or even beyond. This is often the case with high-rise buildings, industrial development or structures relating to transportation such as bridges, parking garages and airports. The impact might be visual or arising from the usage of these facilities. The infrastructure development may lead to various forms of pollution which can either have some bearing on the context of the property or have a direct chemical effect on the heritage structures.

Appropriate infrastructure development can of course have a positive impact on World Heritage properties too, especially



Infrastructure development has been one of the major issues reported in the state of conservation of World Heritage properties.

when it comes to controlling and improving already existing circumstances. There have been cases where the safeguarding of a heritage property has been achieved through the improvement of infrastructure. However, each component of the design and implementation must consider the values of the property and ensure that these values are not compromised.

Impact of infrastructure development on natural properties

Inappropriate infrastructure development occurs in natural properties in essentially the same way as in cultural properties. The impacts, however, may be very different and less localized as they are spread more widely by natural processes. Impacts can occur at the clearing and construction phases when soils may be exposed and subject to greater and more accelerated erosion levels. Soil erosion can impact immediate land areas, and can also be felt through the hydrological system and affect coastal areas. Erosion impacts may be both physical and biological, short-term or long-term and even permanent.

Impacts may also occur after construction. Structures themselves may impede biota or interrupt natural processes – for example restricting river flows, estuarine and coastal currents and consequently the aquatic biota that depend on them. A common impact of inappropriately sited roads is the interference of movement of wildlife, including migration routes, and this in turn may endanger the feeding ecology and survival of some communities. Structures may also be detrimental to the scenic and aesthetic values of the property. Excessive noise can be associated with infrastructure development, and this can impact both wildlife and people.

General response to infrastructure development

Infrastructure development is closely related to economic activities that are taking place in and around the World Heritage property. In many cases, development of infrastructure is important to promote economic sustainability of the properties; but this must take place without compromising

the natural and cultural heritage values. Development should take into account the elements of traditional infrastructure that exist and the possibility that these can be restored and/or augmented. The scale and design of the infrastructure must be appropriate to the specific natural and cultural context and measures are required to ensure that developments that impact the Outstanding Universal Value of the World Heritage properties are avoided.

In order to avoid irreversible negative impacts on the Outstanding Universal Value of properties by infrastructure development and to assist the States Parties in finding appropriate solutions, Paragraph 172 of the *Operational Guidelines* recommends that the States Parties inform the World Heritage Committee before any major constructions are undertaken.

Operational Guidelines

172. The World Heritage Committee invites the States Parties to the Convention to inform the Committee, through the Secretariat, of their intention to undertake or to authorize in an area protected under the Convention major restorations or new constructions which may affect the Outstanding Universal Value of the property. Notice should be given as soon as possible (for example, before drafting basic documents for specific projects) and before making any decisions that would be difficult to reverse, so that the Committee may assist in seeking appropriate solutions to ensure that the Outstanding Universal Value of the property is fully preserved.

Impact of infrastructure development in Asia and the Pacific

There is a general understanding throughout the region that infrastructure development can be both negative and positive. States Parties in South Asia report that 20.2% of cultural properties are negatively impacted. They report the lower positive impact (14.7%) of this factor. In contrast, South-East Asia reports a negative impact of 11.8% and a positive impact of 21.5%.

Old Town of Galle and its Fortifications (Sri Lanka) has been impacted by intrusive and illegal constructions within the Galle cricket ground and is threatened by planned developments for the port area. In India, the Taj Heritage Corridor Project was suspended as it was going to impact the World Heritage properties of Taj Mahal and Agra Fort. The new bridge was constructed some 2 km from the property boundary and has supposedly improved tourist access to the important monuments in Agra. The Group of Monuments at Hampi (India) was greatly impacted by the illegal construction of the Aneundi bridge.

The Historic Monuments of Ancient Nara (Japan) was faced with the potential negative impact of a proposed highway in the vicinity of the property. At the Historic Ensemble of the Potala Palace, Lhasa (China) the main threats were identified

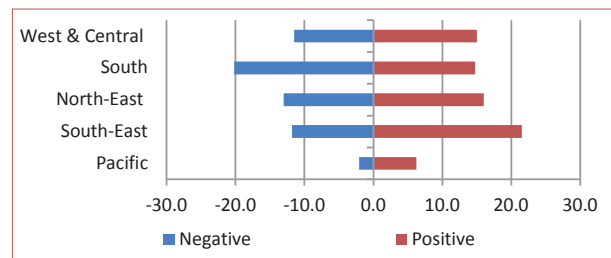


Figure 47. Impact of infrastructure development on cultural properties.

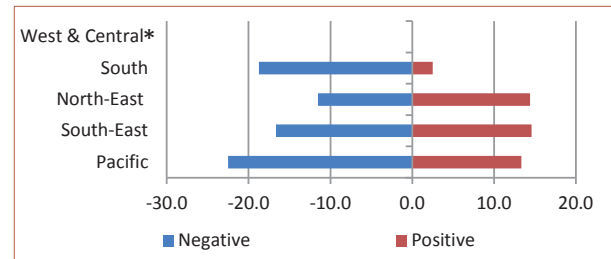


Figure 48. Impact of infrastructure development on natural properties.

* Only one property in this subregion.



Figure 49. Impact of infrastructure development on mixed properties.

as uncontrolled urban development and expansion of tourism-related facilities in and adjacent to the boundary of the property. The Complex of Huế Monuments (Viet Nam) is impacted by the development of the road infrastructure and modern constructions in and around the Citadel as well as the urban infrastructure of Huế and its surroundings.

The situation with natural properties is slightly different. Other than in North-East Asia, the impact of infrastructure development is considered more negative than positive. The contrast is especially large in South Asia where 18.8% of the properties regard infrastructure development to be negative and 2.5% to be positive. Sagarmatha National Park (Nepal) is impacted by the growing need for visitor accommodation and facilities, but the proposed Syangboche airstrip extension plan was abandoned in consideration of its negative impacts.

Ha Long Bay (Viet Nam) has had to deal with excessive tourist boat traffic and high numbers of other sea traffic in transit through the property. At the Great Barrier Reef (Australia) there have been reports on loss of coastal and littoral habitats due to developments such as harbours, wharves, land conversion, housing and associated services and industrial development. Shiretoko (Japan) has reported the impact from river constructions, including dams, on salmon migration.

The situation with mixed properties seems to be rather equal, with infrastructure development being considered only slightly more negative. Impacts, both negative and positive, are considered to be rather high in the Pacific (37.5% and 30.0% respectively).

Service facilities

Description of factors included under this category

Basic services are a necessity which cannot be denied to people even if they are living in historic buildings or zones. This means that the appropriate integration of service facilities becomes part of the process of conserving historic buildings, cities and facilities within protected areas. Such services include electricity, communications, water, sewage and waste disposal. Each of these services, however, can be provided in many ways with great variations in their impact. For example, changes from non-renewable to renewable sources in energy supply are to be applauded. Service facilities that often have a major impact are dams and various forms of power plant (e.g. nuclear, fossil fuel, renewable energy). Transmission lines and underground piping can impact the integrity of both natural and cultural heritage properties.

Factors considered under this category

- Water infrastructure (dams, water tanks, locks, pumping stations, introduction of new systems/infrastructure)
- Renewable energy facilities (thermal, wave, solar, wind)
- Non-renewable energy facilities (nuclear power plants, oil/gas facilities)
- Localized utilities (cell-phone towers, radio towers)
- Major linear utilities (power lines, pipelines)

Impact of service facilities on cultural properties

Living cultural properties require constant upgrading of service facilities and utility lines. This becomes a critical issue especially for historic cities where it is often necessary to introduce entirely new services systems. However, where possible, the traditional systems as part of the heritage need to be revived and possibly augmented. Power cables, water and sewage pipes and possibly communication and TV cables must be laid along the ancient streets. This requires special care to ensure minimum impact on the historic fabric. These cables and pipes should ideally be concealed under the streets or pavements, although at the same time it should be ensured that the possible archaeological finds are safeguarded.

Communication towers are commonly found near heritage properties, often seriously impacting the visual integrity of the site. Especially in urban settings, utility poles and street lighting can be a necessity but impacts the character of the streets and squares.

Both renewable and non-renewable energy facilities can impact heritage properties if they are located within or near the properties. There is an overall threat to the visual integrity due to the size of these facilities. Non-renewable facilities can also pose a threat by producing various forms of pollutants which can affect the property. This is especially the case when fossil fuels are burnt. There is also the potential threat of a nuclear power plant releasing radioactive waste.



Basic services are a necessity but care should be taken to ensure minimum impact on properties.

Dams can inundate large areas of land where there is human habitation, but also specific heritage buildings. This requires the relocation of such heritage objects, which impacts the integrity and destroys the authentic context. Dams can also be potential threats when considered together with natural hazards. Should a dam be damaged through an earthquake or landslide, the subsequent flash-flood could impact heritage properties further down the river.

Impact of service facilities on natural properties

Installation of services and related facilities can impact physical, biological and aesthetic values in natural properties. They can also affect land areas, water bodies or air space. Those such as dams and pumping stations that interfere with waterways can have the greatest and most widespread impacts. These impacts may be felt through extraction of water, influx of water, restrictions or other changes in the flow of water, or the content of water. Aquatic biota are usually intimately and delicately ecosystem-dependent, and even a small perturbation may have profound, immediate and long-lasting effects. For example, the feeding and breeding ecology of fish may be finely tuned to natural water-flow regimes and sedimentation conditions, and their survival could be threatened by any major changes in natural conditions. Energy plants can have impacts on the availability and condition of natural resources. Localized utilities such as radio and cell-phone towers can affect scenic and aesthetic values, while major facilities such as transmission lines and pipelines can have both physical and aesthetic impacts.

Service facilities are often associated with high noise levels, where there are motors or machinery for example. Even the use of wind-powered turbines for electricity generation is known to create noise problems.

It is important to recognize that provision of service facilities outside the World Heritage property, even located a great distance from the boundary, may impact on protected natural resources and values inside the property. Thus, the construction

of dams in headwaters of rivers whose catchments are not completely contained in the property may have significant downstream impacts through changes in water flow and sedimentation within the property. Similarly, major constructions associated with service provision in buffer zones and beyond may be readily visible from the property.

General response to service facilities

Electricity, communications, water, sewage and waste disposal are requirements for any human habitation. It is critical that the most appropriate means of providing these services is understood and the impact on the World Heritage property is minimized. Wherever possible, the introduction of such facilities should be provided outside the boundaries of the heritage property, and even in these cases, care should be taken to ensure no, or minimal, detrimental impact, both physically and visually.

Impact of service facilities in Asia and the Pacific

In most cultural properties in the region, service facilities are considered to be more positive than negative. North-East Asia shows 20.4% positive and only 10.4% negative, whereas South-East Asia shows 21.1% positive and 10% negative. In the Pacific, only a positive impact is indicated (10%). It is only in South Asia that service facilities are considered to be only 7.2% positive and 15.9% negative. This shows that service facilities are required, although installation must be carried out ensuring the least impact on the heritage.

In Kathmandu Valley (Nepal) it was reported that there were obtrusive public utilities within the monument zones, such as electricity transformers and floodlights fixed on, or immediately adjacent to, monuments. It was considered that these could be made less conspicuous by placing cabling underground, but by paying due regard to archaeological cultural levels. In the Historic Centre of Bukhara (Uzbekistan) water and sewage pipelines were considered to be in poor and deteriorating condition with inadequate drainage systems, resulting in increasing negative impacts of rising groundwater on foundations of earthen buildings. In Samarkand – Crossroad of Cultures (Uzbekistan) water supply and sewage systems were being developed, thus considered to be improving the environmental and ecological conditions in the old city.

At the Historic Ensemble of the Potala Palace, Lhasa (China) improvements to the water supply and drainage system within the buffer zone of Jokhang Temple were planned. At the Complex of Huế Monuments (Viet Nam) while the construction of upstream dams was under way, the rehabilitation of the traditional water network within and around the Citadel was considered a means to reduce the impact of floods in the heritage area. Here we see that the projects that provide service facilities have potential to be both negative and positive.

The situation is slightly different for natural properties. Even though North-East Asia and South-East Asia consider the

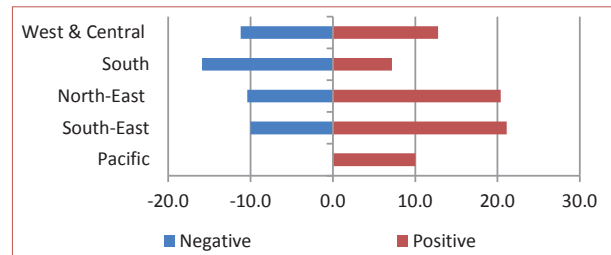


Figure 50. Impact of service facilities on cultural properties.

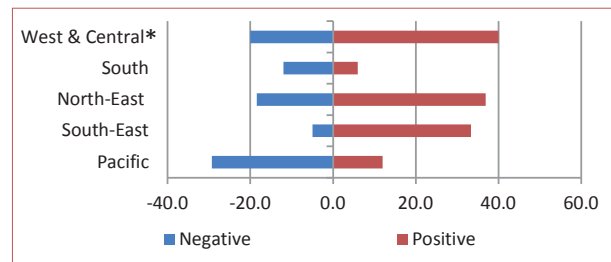


Figure 51. Impact of service facilities on natural properties.
* Only one property in this subregion.

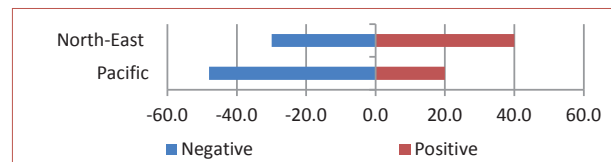


Figure 52. Impact of service facilities on mixed properties.

factor more positive, in both South Asia and the Pacific the impact is considered to be more negative. In the Pacific the positive figure is 12% while the negative figure is as high as 29.3%. Service facilities are less a need in the parks and natural settings, and where they are provided, the negative impact outweighs the necessity for services.

In Three Parallel Rivers of Yunnan Protected Areas (China), it was indicated that proposed dams could lead to more frequent mudslides, especially because this is an active fault zone. At Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiujin Mountains (China), special approvals were required for reconstruction of dams after the 2008 Wenchuan earthquake. Potential dam construction has also threatened properties in South-East Asia such as Dong Phrayayen-Khao Yai Forest Complex (Thailand) and Gunung Mulu National Park (Malaysia). Chitwan National Park (Nepal) planned to lay an electricity supply cable, 6 km of which would pass through the property. A success story, however, can be found in Chitwan National Park (Nepal), where the Rapti River Diversion project, which would have threatened the riparian habitat critical to the one-horned rhinoceros, was abandoned.

The situation with mixed properties is more balanced, although the overall number of these properties is small. In the North-East Asia the impact of service facilities is considered slightly more positive (40% positive to 30% negative). In the Pacific the factor is considered more negative (20% positive to 48% negative). In the mixed property of the Tasmanian Wilderness (Australia) the power scheme on the Gordon River required monitoring of riverbank erosion and the health of the meromictic lakes that are key features of this World Heritage property.

Pollution

Description of factors included under this category

Heritage properties are closely integrated within their context and environment and are therefore susceptible to all forms of pollution. Pollution can affect all realms of the environment. Water pollution can affect the sea, lakes, rivers and ponds. Air pollution is mainly produced by the burning of fossil fuels, but can also be caused by the discharge of dust and particles into the air. Certain forms of air pollution can produce corrosive acid rain and mix with the surface water. Solid waste can come from industries, household rubbish and rubble from demolitions. All these forms of pollution can impact the integrity of the heritage properties. With certain forms of heritage, light, heat and sound, which are normally not considered as pollutants, can have a negative impact.

Factors considered under this category

- Pollution of marine waters (ocean dumping, bilge water discharge, solid debris in marine environments)
- Groundwater pollution (oil/chemical spills, industrial effluent, agricultural runoff, household sewage/waste, acid sulphate soils, effluent discharge, mine/tailings runoff)
- Surface water pollution (acid rain, mine/tailings runoff, agricultural runoff)
- Air pollution (excessive smoke or other airborne particulates, dust, local effects of emissions from use of fossil fuels)
- Solid waste (mine tailings, litter, industrial waste, household rubbish)
- Input of excess energy (any inputs of heat and light that disturb ecosystems including inappropriate urban lighting, heat pollution, etc.)

Impact of pollution on cultural properties

All forms of pollution will affect cultural properties. Some forms of pollution might only remain superficial and can easily be cleaned before irreversible damage is caused to the site and monuments. For example, littering is a problem which can be dealt with through awareness and management before causing serious damage to the properties. Littering also depends on the types of activity that are allowed in and around the heritage property. With the identification of areas where food and drink can be consumed, negative impacts caused by littering can be managed. The provision of toilets which are connected to appropriate sewage treatment and disposal systems becomes extremely important to ensure a clean environment within and around heritage properties.

However there are certain forms of pollutants that can lead to the erosion and corrosion of materials and cause changes to the monuments and artefacts that are irreversible. Corrosive chemicals and compounds in the air and water can be extremely destructive. There are many cases of urban monuments that are greatly impacted by the highly toxic air and the associated acid rain.



Heritage properties are susceptible to all forms of pollution.

Impact of pollution on natural properties

Pollution is a problem for land, water and air in natural properties. Commonly reported problems are: accelerated soil erosion and consequent excessive sedimentation in water bodies; physical and toxic contaminants due to runoff from mining waste; eutrophication of rivers and lakes from chemical pollutants; infestation of freshwater and marine areas by algal blooms; and air pollution. Sources of pollution are many and varied: waste discharge from mining and industrial sites; deliberate and illegal dumping of waste; accidental spills of chemicals, fuels and other materials; effluent discharge from agricultural and industrial lands; fossil fuel emissions; and acid rain.

World Heritage areas may be vulnerable to pollution from regional sources well beyond their boundaries.

Pollution of natural areas leads to disruption and possible loss of species and ecosystems. Such disturbance is often easily, widely and immediately felt but it may be difficult or even impossible to avoid or remedy.

General response to pollution

It is possible to control pollution created within the heritage property with strict planning and monitoring. One of the main sources of pollution is in the production of energy with the burning of fossil fuels. This can be greatly reduced by using renewable energy. Heritage properties have begun to use alternative sources of energy, although care must be taken to ensure that the required service facilities do not impact the integrity of the heritage site. There is a trend of introducing electrical vehicles for transporting tourists and servicing the heritage properties.

Due to the large number of visitors, heritage properties usually have to deal with littering. Certain provisions can be made to reduce littering with the distribution of rubbish bins, but quite often these become eyesores and affect the integrity of the property. Visitors also require toilets and the sewage system and disposal can become an issue. There are various means of dealing with sewage disposal in an environmentally appropriate manner.

Air and water pollution originating outside the heritage property is often difficult to regulate. Depending on the direction of flow of water and the location of the heritage property, water pollution can also have a major impact. Industrial development many kilometres away can have a direct impact on the air quality at the site. The source of the pollution needs to be controlled, even if it is a great distance from the property.

Impact of pollution in Asia and the Pacific

Pollution is clearly considered to cause a negative impact on all types of World Heritage properties. Cultural properties in South Asia are reported to be most negatively affected by pollution (21.4%), followed by South-East Asia (12%), West and Central Asia (10.7%) and North-East Asia (10.3%).

Lumbini, the Birthplace of the Lord Buddha (Nepal) has reported the effects of pollution created by industrialization along the main road connecting the property to the nearby city of Bhairahawa. Concern was also shown towards the impact of enlarging the existing airport. Industrial pollution has also been considered a factor affecting the Peking Man Site at Zhoukoudian (China). In Meidan Emam, Esfahan (Islamic Republic of Iran), there existed the possibility of environmental disturbances such as creation of noise, dust, vibration and air pollution along the proposed metro line if mitigation measures were not put in place.

At the Complex of Hué Monuments (Viet Nam) trees were planted in order to mitigate the negative effects of noise and unsightliness at the Minh Mang and Khai Dinh Tombs, in particular for the south-west bypass route. In the Town of Luang Prabang (Lao People's Democratic Republic) necessary measures were required to reduce vehicular traffic and noise pollution that impacted the property. At the Borobudur Temple Compounds (Indonesia) sound environmental control of pollution and the microclimate has been considered the only feasible long-term solution to control the degradation of the monument's surface. The surrounding areas suffer from overcrowding, solid waste pollution, and increase in both temperature and air-borne pollutants.

Pollution is reported to have a greater negative impact on natural properties. South Asia indicates 30% followed by the Pacific (16.7%), South-East Asia (15.3%) and North-East Asia (9%). Park management at Sagarmatha National Park (Nepal)

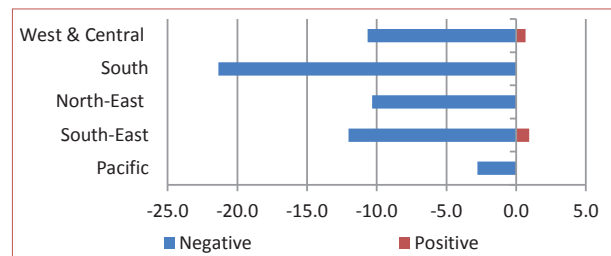


Figure 53. Impact of pollution on cultural properties.

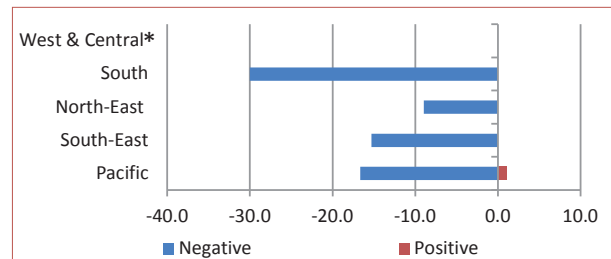


Figure 54. Impact of pollution on natural properties.
* Only one property in this subregion.

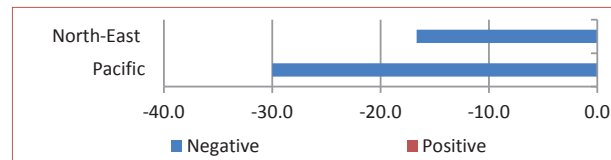


Figure 55. Impact of pollution on mixed properties.

collaborates with various stakeholders and conservation partners to minimize pollution from the solid waste within the property and its buffer zone. The establishment of micro-hydropower has also contributed to reduce air pollution. At Chitwan National Park (Nepal) concern has been shown over the pollution in the Narayani River induced by a number of adjacent industries.

At Ha Long Bay (Viet Nam) the coastal waters, particularly around large cities and towns, have been reported to be affected by pollution from waste disposal from residential areas, industrial activities and transportation. Plastic debris are a source of concern. Dead wildlife has been found with ingested plastic. These materials are likely to be a combination of land-based pollutants washing into the sea and also from the heavy vessel traffic passing through the Sulu Sea. The land-use activities affect the water quality in the Great Barrier Reef (Australia). End-of-river pollution targets have been set for all 26 catchments according to the ecological risk presented to the reef, and minimum targets established for pollutant loads that would halt the decline in water quality entering the reef.

The negative impact of pollution on mixed properties is also considered to be relatively high, with the Pacific indicating 30% and North-East Asia indicating 16.7%. For example at Kakadu National Park (Australia) there was a uranium mine spillage incident, although it showed no repercussions on the health of people emanating from the consumption of food or water from the creek or billabongs downstream from the mine.

Biological resource use and modification

Description of factors included under this category

The term biological resource use and modification refers mainly to natural and mixed heritage properties. Biological resource use in the wild would include fishing, hunting and gathering. These are very often based on subsistence of indigenous communities and are part of the value system of the heritage property. However, these natural resources are sometimes used for profit, which can lead to overuse and inappropriate practices. This can have a negative impact on the property. The environment can also be converted for establishing production systems. Aquaculture, livestock farming and agriculture can completely transform the environment.

Factors considered under this category

- Fishing/collecting aquatic resources (trawling, netting, line fishing, game fishing, collection/harvest fisheries, spear-fishing, by-catch/incidental take issues)
- Aquaculture (marine, freshwater aquaculture)
- Commercial hunting (bush-meat trade, guided game hunting)
- Subsistence hunting (i.e. not for economic benefit)
- Livestock farming/grazing of domesticated animals (grazing on farms or by pastoral groups)
- Land conversion (agriculture – crops and livestock, rural, forestry)
- Crop production (deep ploughing, new crops, intensification of planted agriculture, traditional crops, traditional systems, gardening)
- Commercial wild plant collection (pharmaceutical trade, medicinal plants, fodder collection, thatching, mushrooms, bulbs, etc.)
- Subsistence wild plant collection (indigenous subsistence hunting, gathering and collecting, i.e. not for economic benefit, for example: food plants, medicinal plants, fodder collection, thatching, mushrooms, bulbs, etc.)
- Forestry/wood production (logging, pulp production, all silvicultural operations, restoration/regeneration, sustainable wood harvesting)

Impact of biological resource use and modification on cultural properties

The use and modification of biological resources are a factor that mainly affects natural and possibly mixed heritage properties. There are, however, many cultural properties that include land without built structures. These include smaller plots, gardens and parks within monument ensembles or historic cities. There are cultural properties with forested areas that might have significance for nearby monuments and shrines.

One category of cultural properties that could be impacted by the use and modification of biological resources is cultural landscapes. As per the *Operational Guidelines*, cultural landscapes are cultural properties that represent the 'combined works of nature and of man'. This is very often associated with

people's dependence on the possibilities and constraints of their environment and how they utilize and give meaning to their surroundings.

Impact of biological resource use and modification on natural properties

Natural properties are storehouses of resources required to sustain the livelihoods and ensure the survival of those who live in and around them. It should be an accepted premise in the protection and management of natural properties that rural populations, in particular, must be able to derive sustainable benefit from biological resource use both from the property and its buffer zone. The buffer zone can provide the opportunity for people to continue to obtain access to natural resources and to be compensated if required for any loss of access to resources.

Natural resources and products can provide a host of benefits and uses including: food, fuel, construction materials, shelter, clothing, medicines, arts and craft materials and cash crops (especially low-impact activities such as beekeeping).

In some properties indigenous people may live in harmonious balance with the natural environment – they may even be said to be part of the natural ecosystem. Traditional harvesting and hunting or gathering may be permitted, especially where they are conducted on a sustained yield basis. These activities may be conducted on land, sea and freshwater environments.

Problems arise, however, when these resources are harvested or otherwise stressed beyond their natural capacity and recuperative powers. Where the harmony between people and ecosystem conservation breaks down, the ensuing problems may require solutions through properly integrated and regulated regional planning.

Generally the smaller, low-impact activities are favoured, but some larger-scale activities may be permissible. For example, livestock grazing and browsing can be a beneficial management tool in both natural and cultural properties provided it is controlled within ecological tolerance limits. Large-scale commercial production based on natural resources is normally incompatible with World Heritage protection and management objectives.

A good example of traditional management and use of natural resources is provided by East Rennell (Solomon Islands), which was the first property under local customary ownership to attain World Heritage status. Traditional gardens for subsistence food supplies are cultivated using seasonal cropping and fallow techniques. Some cash crops are grown and coconut is produced for sale. Thirteen species of birds are taken for food and villagers harvest marine and lake resources on both a regular and opportunistic basis. The natural forests are a storehouse for the local inhabitants – providing building

timber, ropes, firewood, food, medicine, bark and tapa cloth, canoe wood and carving wood and tools for fishing, hunting and crafts.

Orchids, butterflies and small animals are sometimes taken to be sold. Customary hunting, gathering and fishing methods and practices are still largely in use, but there is evidence of a gradual move away from these to the use of more modern techniques. Already, there are signs of overharvesting of some resources such as coconut crab, which faces the potential of localized extinction, and marine resources such as crayfish, trochus, beche-de-mer and clamshells whose stocks are suffering from localized decline. These problems and proposed solutions are highlighted in the management plan for the property.

General response to biological resource use and modification

The traditional utilization of biological resources by indigenous communities is usually considered part of the heritage system. The delicate balance between the rate of utilization and the natural renewal needs to be monitored to ensure its sustainability. The threat of large-scale land conversion, establishment of large-scale agricultural production systems and the commercial over-use of resources need to be controlled.

Impact of biological resource use and modification in Asia and the Pacific

Biological resource use and modification in cultural properties are generally considered to be positive, especially in South-East Asia (11.1% positive impact to 4.4% negative) and the Pacific (10% positive impact to 1.7% negative). Only for the cultural properties in South Asia is this factor considered slightly more negative (4.4% positive to 6.4% negative).

The situation with natural properties is rather different. There is a clear indication that biological resource use and modification are considered to have a negative impact. South-East Asia indicates 28.3% negative to 3.3% positive, whereas South Asia indicates 26% negative to 1% positive. This is presumably because of excessive use of the biological resources.

At Lorentz National Park (Indonesia) it has been noted that in the mainland of the property, traditional hunting and fishing for subsistence of local communities occur while there are also reports of illegal poaching. In the Tubbataha Reefs Natural Park (Philippines) a statistically significant positive trend in total fish biomass, including commercial fish species as well as trends in large marine species, indicates a healthy reef system. A drop in tuna and mackerel numbers may be attributed to the impacts of fishing in the wider region. Gunung Mulu National Park (Malaysia) notes that there are community rights pertaining to hunting, fishing and the collection of non-timber forest products that were accorded at the time of the original creation

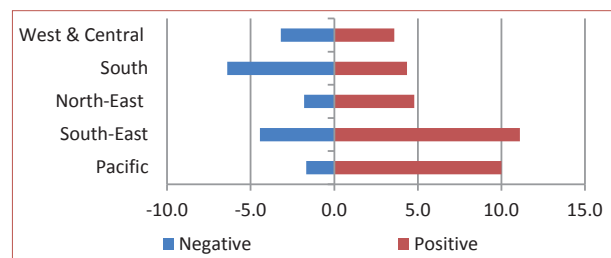


Figure 56. Impact of biological resource use and modification on cultural properties.

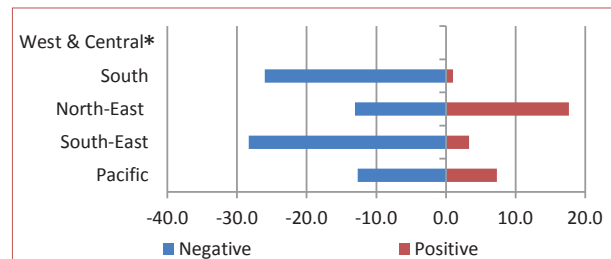


Figure 57. Impact of biological resource use and modification on natural properties.

* Only one property in this subregion.

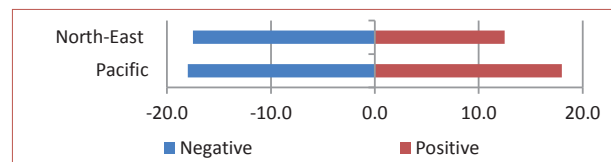


Figure 58. Impact of biological resource use and modification on mixed properties.

of the National Park. It is positive that the same community is involved in the management and conservation of the park.

In the Tropical Rainforest Heritage of Sumatra (Indonesia) there have been reports of continued hunting and sale of songbirds, along with mining exploration and poaching of Sumatran tigers. In Sundarbans National Park (India) the unsustainable harvest of tiger prawn seed is reported to pose a serious threat to the ecosystem of the Sundarbans as a whole, and has implications for the sustainability of the fisheries in the region. In Shiretoko (Japan) management is required of fishing in consultation with local fishers as well as fishing activities in the wider Sea of Okhotsk. Effective measures were also considered to be required to minimize conflicts between fishers and the conservation of the threatened Steller sea lion as well as providing for unimpeded movement of salmon species between the marine and riverine habitats. In East Rennell (Solomon Islands) more than 800 residents in the property rely for their survival on access to the resources of land, freshwater and sea; however, over-exploitation of coconut crab, fisheries, logging and mining are potential threats to the property.

The situation with mixed properties seems to be slightly more balanced. In the Pacific, biological use and modification seem to be an important factor but with equal positive and negative impact (18%). In North-East Asia the balance tips slightly towards the negative impact – 17.5% compared with 12.5% positive. This suggests a balance between the traditional use and the conservation of biological resources.

Physical resource extraction

Description of factors included under this category

Mining sites whose associated values are considered to be universal and outstanding have been inscribed on the World Heritage List as industrial heritage. Mining and quarrying are industries that have existed since at least Neolithic times, 5,000 years ago. However, it must be clearly understood that most forms of physical resource extraction will have dramatic effects on the environment. Surface mining and quarrying can physically change the entire topography of the area. There are various forms of subsurface mining that would have less direct impact on the environment; however the related infrastructure could affect the integrity of the heritage property.

Factors considered under this category

- Quarrying (rock, sand, aggregates)
- Mining
- Oil and gas
- Water

Impact of physical resource extraction on cultural properties

There are various cultural properties that have been inscribed as industrial heritage or sites with related mining activities. These values would need to be safeguarded.

Mining and quarrying activities along with extraction of oil, gas and water are usually considered to be unfavourable to heritage properties. Most of these activities themselves can threaten the environment, as can the infrastructure development that accompanies them, even when they take place outside the boundaries of cultural properties. This is especially the case with cultural landscapes and properties that are closely linked to the surrounding environment with potential physical resources.

Large-scale extraction of water can lower groundwater levels and lead to the drying up of aquifers. This can have the effect of inducing settlement of the ground which can cause severe damage to monuments, historic buildings and even entire cities.

Impact of physical resource extraction on natural properties

Large-scale extraction or exploitation of physical resources, such as soil, rock, minerals and water, is essentially incompatible with the protection and management objectives



Most forms of physical resource extraction have dramatic effects on cultural and natural properties.

of World Heritage properties because of the destructive impact. As such they are generally not permissible activities. They need not necessarily be totally prohibited, however. For example, it is possible to drill for oil beneath natural areas without significantly disturbing the ecosystem components or processes, but careful safeguards need to be put in place. Restoration of exploited and damaged sites is possible and techniques are improving, but restoration is nowhere near capable of returning natural ecosystems and environments to their original condition.

Resource extraction in buffer zones may be permissible provided that it is planned and conducted in ways that ensure no impact on the values or integrity of the World Heritage property.

General response to physical resource extraction

It is clearly understood within the Convention that mining is incompatible with World Heritage status, as recognized by the International Council on Mining and Metals and other industry-led bodies, and endorsed by the World Heritage Committee.

Where quarrying and mining are part of the heritage of the property, these activities need to be continued in a sustainable manner. However, the properties that are listed under industrial heritage are not necessarily still operational.

Care should be taken to ensure that ongoing or newly introduced extraction facilities do not impact the integrity of the heritage property. All forms of physical resource extraction will impact the environment. In most cases, this should not be taking place within the heritage boundaries. Should such

activities be carried out near the heritage property, the impact on the values of the property and the environment must be assessed, monitored and adequately regulated.

Impact of physical resource extraction in Asia and the Pacific

For cultural properties physical resource extraction is generally considered to be slightly more positive, with West and Central Asia indicating 8% positive and 5% negative, North-East Asia indicating 4.5% positive and 4% negative, whereas South-East Asia indicates 5.6% positive to 2.8% negative. This is slightly different with South Asia where the impact of physical resource extraction on cultural properties is considered more negative (5.1% positive to 10.9% negative). The cultural properties in the Pacific do not consider this to be a factor at all.

The trend is very different for natural properties. The properties in the Pacific indicate a clear negative impact with 20% in contrast to 1.7% positive. In South Asia the impact of physical resource extraction on natural properties is not considered positive in any way with indications of it being only negative (15%). The trend is slightly different in North-East Asia (5.8% negative to 7.7% positive) and South-East Asia (4.2% negative to 6.3% positive). All positive impacts are reported to be related to water. No impact is indicated on the single natural property in West and Central Asia.

In Sagarmatha National Park (Nepal) mining of rock, sand and turf is regulated with set times and dates during which natural resource exploitation and collection is permitted within the property. Building material extraction is allowed once a year for a month, and sand and turf exploitation is permitted all year round. At the Three Parallel Rivers of Yunnan Protected Area (China) it has been reported that there are no existing mining operations within the property. Mining operations adjacent to the property are considered a significant threat. However, no new mining operations are to be approved within the property or its buffer zone, and the authorities will enforce strict control of existing mining operations in the buffer zone and areas adjacent to the property.

In the Tropical Rainforest Heritage of Sumatra (Indonesia) there are reports of small-scale sand mining and plans for coal mining development in the hill forests adjacent to the property. Increased patrols are used to combat illegal sand mining activities and the authorities have been urged to ensure that no mining licences are granted inside the property. Lorentz National Park (Indonesia) reported threats from mining, timber collection, poaching and road construction. Concern was also expressed about the reported oil and gas exploration within the World Heritage property, which is supported by licences and permits. In addition a large landslide was reported in

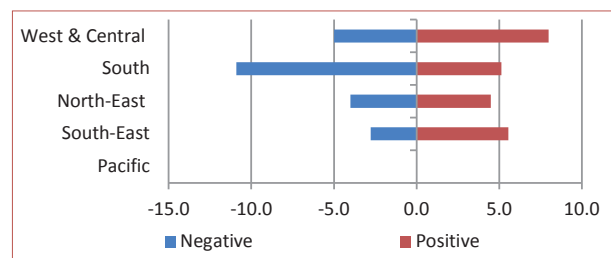


Figure 59. Impact of physical resource extraction on cultural properties.

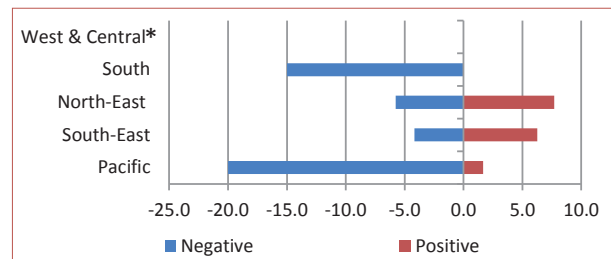


Figure 60. Impact of physical resource extraction on natural properties.

* Only one property in this subregion.

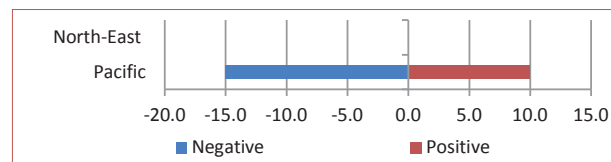


Figure 61. Impact of physical resource extraction on mixed properties.

and near the property, which is suggested to be the result of underground mining. In Purnululu National Park (Australia) concern was shown that a company had applied for mining rights and proposed to develop an opencast coal mine 6 km from the property.

The situation for mixed properties shows that in North-East Asia physical resource extraction is not an impact. In the Pacific, the mixed properties indicate the impact to be 15% negative and 10% positive. In Kakadu National Park (Australia), for many years prior to its inscription as World Heritage, plans for mining were the subject of public controversy.

Unfavourable human activities

Description of factors included under this category

There have been many unfavourable human activities that have had major negative impact on heritage properties. These can be categorized under illegal activities carried out by individuals or small groups for personal gain by means of illegally obtaining resources that are part of a heritage site. Individuals and small groups have also been known to deliberately harm or destroy heritage for ideological, political or psychological reasons. Heritage can be caught up in the middle of larger conflicts and be destroyed or damaged because it has a certain symbolic value, is used as a protective shield or is just in the way.

Factors considered under this category

- Illegal activities (illegal extraction of biological resources, i.e. poaching), blast fishing, cyanide fishing, illegal extraction of geological resources (mining/fossils), illegal trade, illegal occupation of space, illegal excavations, illegal construction, looting, theft, treasure hunting, ghost nets (discarded fishing gear)
- Deliberate destruction of heritage (vandalism, graffiti, politically motivated acts, arson)
- Military training
- War
- Terrorism
- Civil unrest

Impact of unfavourable human activities on cultural properties

There are many cultural heritage properties that have suffered from unfavourable human activities. As cultural heritage properties often have great symbolic or religious value, they become targets for those who want to attack or send a message to opposing communities. Unfavourable human activities for cultural properties can be limited to individuals who illegally excavate, take pieces from historic structures or loot artefacts. Graffiti can damage the surfaces of historic structures and especially murals, paintings and ornamentation. There have been numerous cases of vandalism and arson. In some cases these acts have been carried out to attract attention, as important heritage sites are covered by the media.

Sometimes such actions are carried out without proper awareness of their impact. There are unfavourable human activities in the form of religious rituals or for personal pleasure. Even if there is a lack of awareness, it is still illegal, for example, for a pilgrim to break away parts of archaeological structures, no matter how much religious value these might have.

As recently as over the last decade, there have been cases where significant cultural properties have been destroyed or damaged due to terrorism, civil unrest and outright war. These



The Cultural Landscape and Archaeological Remains of the Bamiyan Valley (Afghanistan) is a victim of war.

forms of conflict are often fought over a large area and with the involvement of entire populations. This makes it difficult to control. However there have been some bold steps taken to formulate international conventions to prepare for the protection of cultural heritage properties during armed conflict.

Impact of unfavourable human activities on natural properties

Unfavourable and illegal activities can have a negative impact on natural properties too. Poaching of rare and endangered animals is the most commonly reported illegal activity. Site managers are well aware of the problems and are taking measures to combat them, but lack of staff and finance hinders their efforts.

Illegal taking and trading in rare and endangered species of plants and animals are ongoing problems for some properties. In the Solomon Islands this is associated with logging activities. In New Zealand there have been particular cases involving the tuatara, a small, primitive and truly unique reptile somewhat akin to the long-extinct dinosaurs. Unauthorized taking and excessive collecting of fossils are a problem reported by the Australian Fossil Mammal Sites (Riversleigh/Naracoorte). Civil unrest in the Solomon Islands two years after East Rennell was inscribed as World Heritage led to a situation where the government was unable to attend to its World Heritage responsibilities. There was little or no contact by government with the property and no direct assistance was provided to the customary owners. Regrettably, financial aid and technical support for the property from international sources were also unavailable during this time. This situation has improved in recent years but is still less than satisfactory.

General response to unfavourable human activities

The need for control of illegal activities can be reduced by employing methods of awareness-raising and law enforcement. The awareness of the communities and visitors must be built on the negative impact of illegal activities. Clear simple reasoning must be provided on why certain activities are not allowed. This must however be carried out hand in hand with a clear security plan with guards watching over the most important aspects of the heritage property.

The Convention for the Protection of Cultural Property in the Event of Armed Conflict (the Hague Convention) of 1954 along with its first and second Protocols addresses the threat of armed conflict on cultural heritage properties. Based on the Convention the Blue Shield was established, which is often described as equivalent to the Red Cross for cultural properties. The Blue Shield network consists of organizations that deal with the protection of cultural sites in the event of armed conflict including museums, archives and libraries, as well as monuments and sites. The Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property was made in 1970 to fight against illicit import and export of cultural property. The Convention for the International Trade in Endangered Species of Fauna and Flora (CITES) is the principal international instrument for controlling illegal taking and trading of rare and endangered species of biota. (For more detail, see pages 34–35, Coordination with other conventions.)

Impact of unfavourable human activities in Asia and the Pacific

Unfavourable human activities were predominantly considered to be negative for all categories of properties. For cultural properties, the negative impact of this factor seems to be highest for the properties in South Asia (17.5%) followed by South-East Asia (8.3%), West and Central Asia (5.3%), North-East Asia (3.3%) and the Pacific (2.8%).

The Mahabodhi Temple Complex at Bodhgaya (India) raised concern over development pressures, vandalism and theft. In the Historical Monuments at Makli, Thatta (Pakistan), observations were made that during the flood the property had been subject to looting, vandalism, destruction and degradation of various elements, as well as occupation by internally displaced persons.

The Cultural Landscape and Archaeological Remains of the Bamiyan Valley (Afghanistan) was inscribed on the List of World Heritage in Danger in 2003 due to risks such as looting, illicit traffic and illegal excavations of cultural heritage assets, as well as continued use of certain heritage areas for military posts. Similarly, the Minaret and Archaeological Remains of Jam (Afghanistan) was inscribed on the List of World Heritage in Danger in 2002 due to lack of protection from the factors affecting the property such as political instability, illicit excavations and looting.

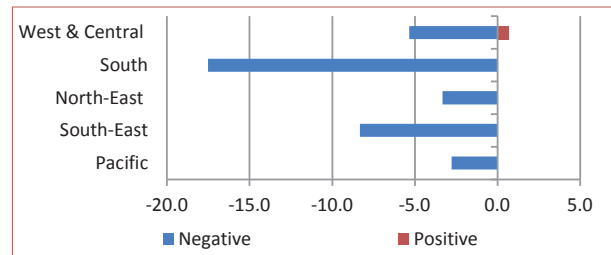


Figure 62. Impact of unfavourable human activities on cultural properties.

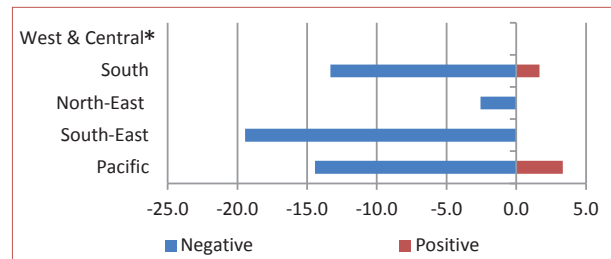


Figure 63. Impact of unfavourable human activities on natural properties.

* Only one property in this subregion.

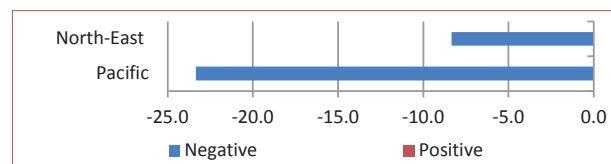


Figure 64. Impact of unfavourable human activities on mixed properties.

Armed clashes around the Temple of Preah Vihear (Cambodia) reportedly caused damage to the property. Angkor (Cambodia) on the other hand is seen as a success story where the threat of illicit excavation, pillaging and landmines has been fully removed.

The trend for natural properties is similar, but considered to have more of an impact in South-East Asia (19.4%) and the Pacific (14.4%), followed by South Asia (13.3%) and North-East Asia (2.6%).

In the Sundarbans (Bangladesh) there have been reports of poaching of tigers and prey species. In Kaziranga National Park (India), although illegal activities appear to be more or less under control, the situation facing the one-horned rhinoceros – the prime target for poaching – remains serious. Armed confrontations between park staff and poachers occur from time to time. Poaching of rhinos has also been a constant issue for Chitwan National Park (Nepal).

In Lorentz National Park (Indonesia) the lowland areas of the park have been affected by illegal logging and poaching taking place along the rivers that provide access to the area. The Tropical Rainforest Heritage of Sumatra (Indonesia) has faced heavy pressure from illegal activities, including encroachment, logging, poaching and the wildlife trade. Illegal fishing has also been found to impact Komodo National Park (Indonesia) and Tubbataha Reefs Natural Park (Philippines).

The situation for mixed properties shows that the impact of unfavourable human activities is high in the Pacific (23.3%).

Tourism

Description of factors included under this category

Tourism is known to play an important role in promoting and sustaining heritage sites. Therefore people are encouraged to visit places of significance to learn and to enjoy the experience. This provides a source of income and develops the prestige of the site. To cater for the tourists, heritage sites require presentation and interpretation. There are, however, many activities that arise from tourism pressure that can have a negative impact on the heritage property. There can be physical damage caused by heightened activities and constructions. There can also be a loss of ambience, environment and context of the property through inappropriate activities.

Factors considered under this category

- Impacts of tourism/visitor/recreation (high levels of visitation, vendors, building community support, sustainable livelihoods)
- Major accommodation and associated infrastructure (hotels, restaurants, golf courses, ski resorts, etc.), major/permanent high-cost tourist facilities (pontoons, jetties, observatories, cable cars, chalets, fully serviced camping areas, etc.)
- Interpretative and visitor facilities (visitor interpretive facilities (visitor centres, site museums, etc.), signage, trail hardening (trail markers, etc.), information booths, picnic facilities, camping areas, moorings/marker buoys)

Impact of tourism on cultural properties

Experience shows that tourism has both negative and positive impacts on cultural properties. As the significance of the heritage is acknowledged and promoted through inscription on the World Heritage List, there is generally an increased desire for people throughout the world to visit the property. This demand creates a pressure that needs to be kept under tight monitoring to ensure that it does not lead to activities that negatively impact the very heritage that it is thriving on. Many World Heritage properties see tourism as both a positive and negative factor affecting the property.

There is a wide range of positive consequences of tourism on cultural heritage properties. For many sites, tourism is an important source of income. Depending on the type of tourism that is promoted, visitors can come in organized groups to ensure least impact on the property, but with high centralized profits. These profits should be invested back into the management of the heritage property, a pledge which is not always fulfilled. Tourism can also be promoted to ensure that there is maximum contact between the visitors and the local community and entrepreneurs, so that a maximum number of people can profit from tourism. Once the community is dependent on the heritage for their livelihood, they develop an interest to ensure that it is safeguarded. The community, however, also safeguards the heritage which is an important source of their history and identity.



The popularity of certain properties leads to overcrowding of visitors.

The pressures of tourism can have serious effects on heritage properties. The demand of a tourism industry which is not geared towards sustainability can lead to major construction activities for visitor facilities in and around the heritage property. There is a tendency to try to develop hotels and accommodations as close to the main heritage site as possible. Visitors demand a certain level of utilities and services even within historic buildings or near archaeological sites. Excessive use and inappropriate behaviour can have long-lasting impact on cultural heritage properties. This is especially the case in the heritage sites that have religious or spiritual meaning to the community, where spirituality and ambience play an important role. Tourism can also lead to vandalism, general disturbance and pollution.

Impact of tourism on natural properties

The principles and the issues relating to tourism are essentially common to both cultural and natural properties. Inevitably visitor numbers increase substantially once a property is inscribed on the World Heritage List, often by many times over the pre-inscription levels. Increase in tourism pressure can also occur very rapidly and may be sustained over a long period, and this requires careful management to minimize impact.

Among the most commonly reported problems for natural properties are: overcrowding leading to environmental disturbance and stress on wildlife, overdevelopment with excessive construction of buildings and other facilities such as power lines and cell-phone towers, causing environmental damage; pollution of land, waterways and air, including excessive levels of noise and artificial light, littering, damage from vandalism and inappropriate activities, feeding of animals leading to changes in their behaviour, disturbance and losses to wildlife from recreational activities – excessive sport fishing and hunting, and wildlife mortality from vehicle traffic on roads, off-road vehicle use and powerboats; and inappropriate or illegal souvenir collection. All the problems and impacts from

increased tourism can be minimized or completely avoided through appropriate management intervention.

General response to tourism

All heritage properties need tourism management. This should be based on a clear understanding of the negative and positive impact of the visitors and an assessment of the carrying capacity of the heritage property. Strategies need to be developed to control the negative impact and to promote the positive aspects of tourism. This requires detailed studies, research, surveys and expertise to develop an overall tourism plan for the heritage property.

The key to minimizing tourism impact is to promote ecotourism – tourist operations with codes of conduct that respect the need for environmental and ecological restraints. This is especially important for natural properties to avoid damaging or destroying the very features and values that give the property its Outstanding Universal Value. The same principles apply to respecting values in cultural properties. The major problems come with mass tourism mounted on a totally commercial foundation. This approach to tourism development has no place inside World Heritage properties and should be confined or diverted to areas outside the boundaries of the property and its buffer zone.

It is important to recognize that, while tourism can be a great stimulus for economic growth and the well-being of the residents and communities within and around the heritage property, it does not necessarily have to be conducted on a large scale. The level and volume of tourist operations should be consistent with the capacity of the property to sustain the impact without unacceptable damage and the abilities and needs of the property owners and managers. A case in point is East Rennell in the Solomon Islands where to date efforts to promote tourism have been almost totally unsuccessful despite some ecolodges being built in the property. Turning this situation around requires, first, recognition that only small-scale operations are required to meet the needs of income generation (e.g. occupancy of lodges of around 1,000 bed-nights/year), secondly, that the local people are trained in the required marketing and business skills and, thirdly, that the local operations are fully integrated within a national tourism plan that attends to matters such as tourism promotion and provision of travel services and infrastructure. These principles apply universally to linking tourism development and heritage protection in ways that are mutually compatible and reinforcing.

Impact of tourism in Asia and the Pacific

Tourism is seen to have both a positive and a negative impact on World Heritage properties. For cultural properties, on average the positive impact is perceived as being about three times that of the negative impact. South Asia (34.2%) indicates the highest negative impact and South-East Asia (64.8%) the highest positive impact.

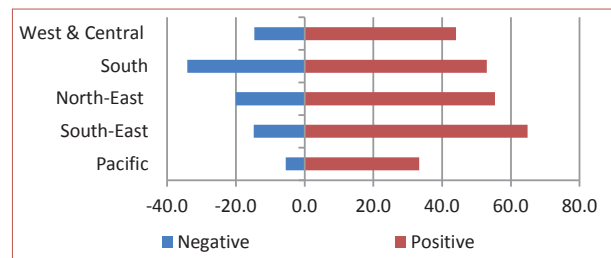


Figure 65. Impact of tourism on cultural properties.

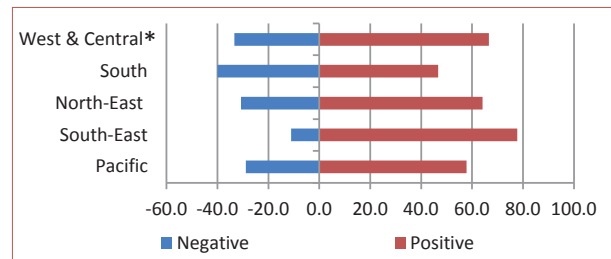


Figure 66. Impact of tourism on natural properties.

* Only one property in this subregion.

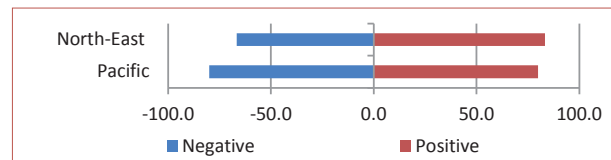


Figure 67. Impact of tourism on mixed properties.

A similar trend can be seen with natural properties. A higher percentage of overall impact is shown. South Asia (46.7%) indicates the highest negative impact and South-East Asia (77.8%) the highest positive impact.

As an impact of tourism and the management response to it, Historic Villages of Shirakawa-go and Gokayama (Japan) mentioned that the increase of tourists has brought intermittent problems with traffic congestion during the peak tourist season. To address this issue, measures have been taken to prohibit the entry of tour buses into the property area and the restriction of access by other tourist vehicles. In addition, parking facilities are being established outside the property area in order to reduce the number of tourist vehicles entering.

Similarly, natural properties such as Tubbataha Reefs Natural Park (Philippines) reported a lack of tourism impact monitoring. Ha Long Bay (Viet Nam) reported the need to reduce visitor pressure by dispersing visitors throughout the property. Similarly in Dong Phrayayen-Khao Yai Forest Complex (Thailand), consideration has been given to sustainable tourism, ecotourism including carrying capacity, and community participation to manage high visitor levels. East Rennell (Solomon Islands) initiated projects in ecotourism and small business development along with an Ecotourism Plan. Sagarmatha National Park (Nepal) reported illegal construction of tourist lodges and footpaths. Purnululu National Park (Australia) raised the need to address the concerns of traditional landowners regarding unsuitable tourism access to culturally significant sites.

Interaction with society

Description of factors included under this category

It is society that gives value to heritage. This is not always straightforward, especially when the society or community that produced some component of cultural heritage has moved away or no longer exists. For example, abandonment that happened in the Rice Terraces of the Philippine Cordilleras (Philippines) was a negative factor for the property. Heritage that is valued may also be subject to demands for use by a society. Where indigenous people live within properties, indigenous hunting, gathering and collecting of natural resources happen as part of their lives. These uses can cause deterioration of the fabric of heritage sites. Some forms of use, such as rituals and festivals, can enhance certain values, thus they could be considered to be a positive impact. These activities could, however, cause the deterioration of the heritage objects and artefacts at the same time, negatively impacting the value of the heritage sites.

Factors considered under this category

- Ritual/spiritual/religious and associative use festivals/performances
- Society's valuing of heritage (change in values, abandonment changes in values leading to new uses of heritage resources, expansions of / additions to current uses of heritage resources, conflicting values, abandonment)
- Indigenous hunting, gathering and collecting
- Changes in traditional ways of life and knowledge system (loss of traditional knowledge and practices linked to heritage)
- Identity, social cohesion, changes in local population and community, changes in livelihoods, migration to or from site

Impact of interaction with society on cultural properties

The values of cultural heritage properties are closely related to how society perceives them. In many cases, these values are associated with ritual, spiritual or religious usage of the heritage property. In such cases, a conflict in perception can arise between the material and the spiritual aspects of the heritage. Objects used for rituals often require regular renewal. The value lies in the usage and not the object. Should the object being used for veneration have a value that exceeds that for which it is being used, these activities would need to be considered negative and thus might need to be halted. In other cases, usage of heritage serves as the maintenance of properties. This means that in order to maintain the value of the property, it has to be used by the communities and neglect or abandonment causes its deterioration. This shows that a delicate balance between the use of heritage and its impact on the property needs to be sought.

The relationship between the heritage value and society is often so closely entwined that it is difficult to separate. The impact on the tangible attributes must be monitored to ensure



Society gives value to heritage and vice versa, but activities carried out could have physical impacts on properties.

that a balance is maintained between the activities carried out by society for its own gain and the conservation of the heritage objects.

Taking into account that often the heritage values have been maintained by the community through traditional knowledge and practices, it is essential that this form of involvement is not lost through irreversible changes to society. Changes can take place directly to the heritage site. When the values are associated with the community, changes to the identity of the society and to the population can have a far-reaching impact on the heritage property itself.

Impact of interaction with society on natural properties

Impact issues for natural properties are in principle the same as those for cultural properties. The ready availability of natural materials for building, clothing and food can be considered a positive effect of protection and conservation practices. Small-scale timber milling may be an acceptable low-impact local industry for providing cash income. However, social practices associated with traditional customary uses of resources can also detrimentally affect natural values and attributes. A case in point is East Rennell (Solomon Islands) where the local residents responsible for management of the property need to exploit its natural resources for food and sustenance, and have harvested coconut crab and some marine species to dangerously low levels. The solution to this problem is not easily found, but it involves raising awareness of species conservation needs, and the provision of alternative food supplies.

General response to interaction with society

The first step in developing an approach to conserving heritage is clarifying the related values. This is often closely related to the values ascribed by society. The values and how they are safeguarded also depend on how the heritage sites are

being used. This could be for religious or social purposes, but very often the communities are economically dependent on the heritage sites for their livelihoods. This interdependence between the heritage and the community might be the very attribute that determines the value of the heritage property.

The heritage must however also be protected from excessive activities of the communities, which are often closely associated with their understanding and value of the heritage. This means that not all activities of the communities can be considered to be positive for the conservation of the heritage. There are sometimes conflicting values among the people, which lead to the deterioration of the objects and resources that might be gained from the heritage sites.

The involvement of the community has to be considered and incorporated in the approach to conservation. This means that the values and related activities connected with the communities and society are important considerations in defining the heritage value and conserving the respective attributes of a heritage site.

Impact of interaction with society in Asia and the Pacific

Interaction with society as a factor is considered positive throughout all categories of World Heritage properties. Overall, a large percentage of properties seem to be impacted by this factor.

The trend with the impact of interaction with society on cultural properties is clearly shown as positive. This is especially the case with South-East Asia (45.6%) and North-East Asia (42%). In South Asia, although the positive impact is considered relatively high (30.3%), the negative impact is indicated as comparatively high as well (27.2%). However in the Pacific the impact is only considered to be positive (26.7%).

The Rice Terraces of the Philippine Cordilleras (Philippines) was inscribed on the List of World Heritage in Danger in 2001 due to abandonment of the terraces following neglected irrigation systems and people leaving the area, among other reasons. This was caused by the diminishing interest of Ifugao people in their traditional culture, as well as by the fact that younger generations opted to leave the rice terraces and find job opportunities elsewhere. Efforts have been made to establish a community-based programme to tackle the diminishing labour in the conservation of terraces, and capacity-building has been carried out to address the transfer of traditional knowledge to younger generations.

Natural properties indicate a similar trend, although there is a slightly higher average of negative impact. This is especially the case in the Pacific, where interaction with society is considered positive (32%) but with a high range of negative impact (17.3%). The highest positive impact is related to the society's valuing of heritage, which leads to good levels of collaboration with local communities and their involvement in protection and management activities. The negative elements

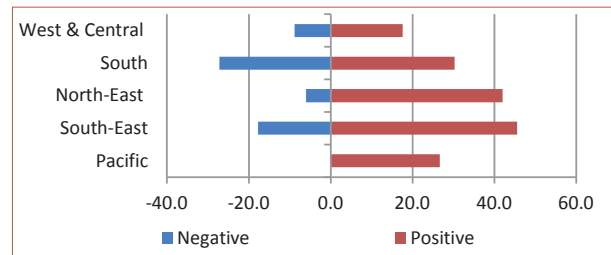


Figure 68. Impact of tourism on cultural properties.

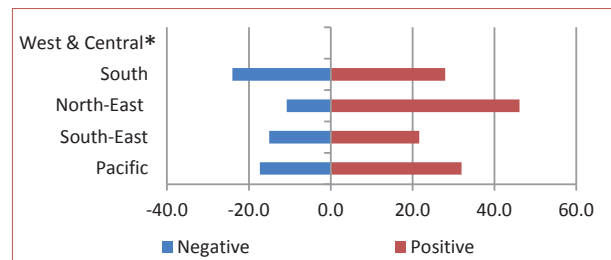


Figure 69. Impact of tourism on natural properties.
* Only one property in this subregion.

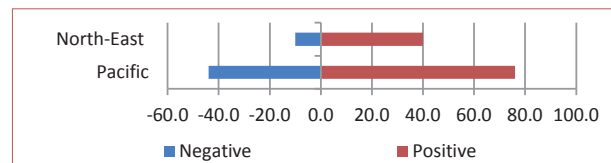


Figure 70. Impact of tourism on mixed properties.

are related to the changes in the traditional way of life and knowledge system. This is probably related to cases of disputed ownership and access to land and resources, particularly in Australia and New Zealand. North-East Asia indicates a very high positive impact (46.2%) in comparison with the negative impact (10.8%).

In Sagarmatha National Park (Nepal) the importance of the cultural and spiritual values of the property has been recognized and community participation in the management of the property has been ensured.

The Wet Tropics of Queensland (Australia) has reported that the cultural values of the area for indigenous people should be formally documented and there should be increased indigenous involvement in management negotiated with traditional owners and their representatives. Similarly, in Purnululu National Park (Australia), steps have been taken to support traditional aboriginal communities in the buffer zone and due consideration has been given to the property's indigenous cultural values. There is an ongoing legal process to determine native title and the involvement of indigenous people in decisions about the management of the property.

Mixed properties present a similar situation, with the Pacific indicating a very high level of impact with positive being 76% and negative being 44%. The mixed properties in North-East Asia indicate a lower impact however, with a similar ratio between positive (40%) and negative (10%). For example, at Kakadu National Park (Australia) the ability of Aboriginal communities to continue their traditional relationships with the land is considered essential, but threatened by mining proposals.

Management activities

Description of factors included under this category

Management is essential for the safeguarding of the Outstanding Universal Value of World Heritage properties. In many cases traditional management systems existed even though the present conditions of these systems may vary greatly. With changing circumstances, it is often necessary to establish more contemporary forms of management which would be part of the overall governance system of the State Party. The management system must include maintenance and monitoring procedures for the most significant attributes of the heritage property. These procedures must be carried out ensuring the least impact, especially activities that might have negative effects on the integrity of the property.

Factors considered under this category

- Management activities
- Low-impact research/monitoring activities (visitor surveys, water sampling, non-extractive surveys, In situ surveys)
- High-impact research/monitoring activities (excavation, sampling using destructive techniques, research involving removal of features or species, i.e. extraction)

Impact of management activities on cultural properties

Management activities can have an extensive impact on cultural heritage properties. An adequate management system can ensure that the authenticity and integrity of the attributes that express the value of the property are maintained. With a lack of knowledge and awareness, management activities can have the exact opposite impact of what was intended. Protective structures have known to change the microclimatic conditions which accelerate material degradation. For the security of properties, there is often extensive fencing and security equipment installed which impact the visual integrity of the heritage site and in some cases have direct physical impact on the heritage objects.

Generally, low-impact research and monitoring activities can be seen as a positive means of safeguarding cultural properties. These are often carried out on a regular basis to ensure that the methods of site management have maintained the required state of conservation. Low-impact research includes mainly observations and surface analysis. Such activities are included in daily routines which can be the basis for regular maintenance and cleaning. Often such activities are carried out by caretakers who do not necessarily need to be highly trained, but should have sufficient awareness of the heritage property.

On the other hand, there are certain circumstances that require high-impact research or monitoring activities. These can generally be considered to have a negative impact, if they are not carried out with clear justifications and by highly trained experts. These kinds of activities are often connected



Management activities are essential for the safeguarding of the Outstanding Universal Value of World Heritage properties.

with extraction of samples from the heritage objects, from the building structures or the archaeological sites. Such activities are usually carried out only if more detailed information on the site is required or there is a specific need for extensive restoration works to be carried out.

Impact of management activities on natural properties

Impacts on natural properties are essentially the same as on cultural properties, especially with regard to research activities. Whether appropriate or not, management intervention may be intrusive. An example is provided by Tongariro National Park in New Zealand, where major physical structures have been constructed on the lower slopes of the principal volcano as a barrier against catastrophic lahars (ash flows) that are known to be associated with eruptive events and have caused tragic loss of life in the past. In this case the loss of natural values is more than compensated by the heightened safety of people and property. The lesson is that management intervention may in some instances involve a necessary trade-off with conservation in compromising natural (or cultural) values.

General response to management activities

The *Operational Guidelines* require all World Heritage properties to 'have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding' (Paragraph 97). This means that all activities that are part of this management system must ensure that the main attributes of the World Heritage property are not impacted in any negative manner. This is especially the case when monitoring, maintenance and research are being carried out.

Many non-intrusive technologies have been developed for research into elements of both natural and cultural properties. For example, archaeological research does not

require intrusive excavations to be carried out immediately, as preliminary investigations can be made using equipment such as Ground Penetrating Radar (GPR). With the help of Geographic Information System (GIS) and satellite imagery, much geographical information can be captured, managed and analysed.

There are of course cases where intrusive methods cannot be avoided. For more detailed testing of materials, it might be necessary to extract samples from heritage structures and archaeological sites. These samples provide more detailed information on material composition and dating.

Impact of management activities in Asia and the Pacific

The impact of management activities is generally seen as being positive throughout the region. With cultural properties management is indicated as a positive impact with the highest percentage in North-East Asia (62.7%), followed by South-East Asia (59.3%), South Asia (54.7%) and West and Central Asia (41.3%). West and Central Asia also indicates a negative impact of 8%. In the Pacific, the impact is considered only positive but comparatively low (33.3%) because in many cases management is non-intrusive, relatively inconspicuous, and in the Pacific Islands management activity may be minimal.

Lack of a proper management plan is quite often identified as one of the factors affecting the properties by the World Heritage Committee. For example, in Samarkand – Crossroad of Cultures (Uzbekistan), factors affecting the property were identified as the lack of strategic approach to urban conservation and the lack of a proper management plan. A similar situation was identified for the Historic Centre of Bukhara (Uzbekistan), where there was a lack of a proper conservation and management plan. Management plans are being prepared for both these properties. The importance of efforts to promote sustainable development through conservation of traditional urban fabric for the benefit of local populations was also noted.

Kathmandu Valley (Nepal) was placed on the List of World Heritage in Danger in 2003 due to uncontrolled urban development resulting in the loss of traditional urban fabric, and this should be addressed through a management plan. An Integrated Management Plan was prepared after two and a half years of work, addressing the social, political and economic complexities and challenges of the multi-component property. It developed constituent instruments (such as the Integrated Management Framework for adjusting structural relations among stakeholders) and the commitment to build

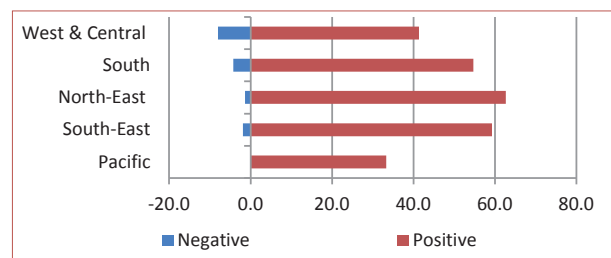


Figure 71. Impact of unfavourable human activities on cultural properties.

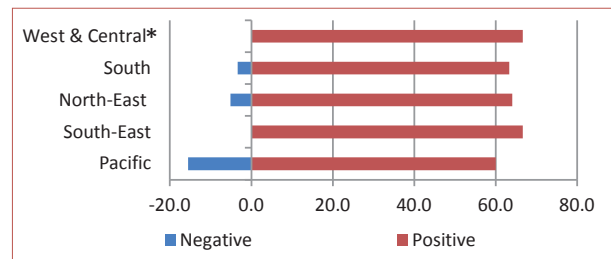


Figure 72. Impact of unfavourable human activities on natural properties.

* Only one property in this subregion.

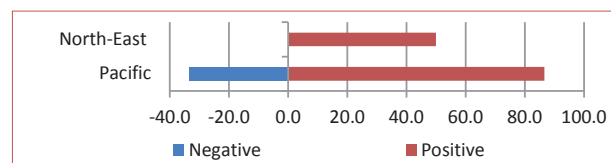


Figure 73. Impact of unfavourable human activities on mixed properties.

from the ground up a planning approach which involved all those who would be responsible for its implementation. With the new integrated management plan, it allowed site managers to monitor the activities of stakeholders and better control the changes taking place within the urban setting.

The Archaeological Ruins at Moenjodaro (Pakistan) was to develop an archaeological research strategy, using non-invasive methods of investigation, and refrain from undertaking any major archaeological interventions until this strategy is in place.

The positive impact of management on natural properties seems to be even greater and throughout the region it is indicated as 60% and above. It is only in the Pacific that a substantial negative impact is indicated (15.6%).

Mixed properties show a similar situation, with the North-East indicating only positive impact (50%). The Pacific indicates a positive impact of 86.7%, with however a negative component of 33.3%.

Resources for site managers

The following references might be of interest to site managers, in particular in relation to factors affecting properties. Copies of many of these materials as well as other resources are included in the DVD supplied with this publication.

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4

Protection and Management



Archaeological Ruins at Moenjodaro, Pakistan © Pascal Maitre

Management system/management plan

Requirements

Operational Guidelines

108. Each nominated property should have an appropriate management plan or other documented management system which must specify how the Outstanding Universal Value of a property should be preserved, preferably through participatory means.

109. The purpose of a management system is to ensure the effective protection of the nominated property for present and future generations.

For the Outstanding Universal Value of a property to be sustained over time, the property must meet the required standards of protection and management and have an adequate management system or plan. The appropriate management plan or other documented management system must specify how the Outstanding Universal Value of the property will be preserved, and must be designed to effectively safeguard the attributes which express this value. The purpose of a management system is to ensure the effective protection of the property for present and future generations. An effective management system depends on the type of property, its cultural and natural context and the resources available. Management systems may vary according to different cultural perspectives, the resources available and other factors. They may incorporate traditional practices, existing urban or regional planning instruments, and other planning control mechanisms, both formal and informal (*Operational Guidelines*, Paragraphs 78, 108–10).

Common elements of an effective management system include the involvement and shared understanding of the property by partners and stakeholders; a cycle of planning, implementation, monitoring, evaluation and feedback; and assessment of the impacts of trends, changes, and of proposed interventions. The management system should also specify the allocation of necessary resources, capacity-building, and an accountable, transparent description of management processes. Effective management involves a cycle of short-, medium- and

long-term actions to protect, conserve and present the heritage property. An integrated approach to planning and management is essential to guide the evolution of properties over time and to ensure maintenance of all aspects of their Outstanding Universal Value. This approach goes beyond the property to include any buffer zone(s), as well as the broader setting (*Operational Guidelines*, Paragraphs 111–12).

States Parties are responsible for implementing effective management activities for a World Heritage property. They should do so in close collaboration with site managers, the agency with management authorities and other partners, and stakeholders in property management. For serial properties, a management system for ensuring the coordinated management of the separate components is essential. The World Heritage Committee recommends that States Parties include risk preparedness as an element in their site management plans, along with sustainable development principles and training strategies (*Operational Guidelines*, Paragraphs 82, 114, 117–18). There is the need for a management system to be sustainable over the long-term, with community by-in, cooperation, participation, sustainable financing, etc. This is especially important for World Heritage properties as the point is to safeguard them in the very long term as assets of the global community.

Properties with special characteristics require management systems that are able to address these specific issues. Special management requirements would be needed for transboundary properties such as theUvs Nuur Basin (Mongolia and the Russian Federation). The special provisions would be required to ensure coordination spanning the governance systems of separate States Parties. Similar coordination issues can arise with serial nominations, such as with the Mountain Railways of India. The three components are located in different parts of the enormous country, under different railway zones and in different states, but under the main authority of the Ministry of Railways. With mixed World Heritage properties, the question of coordination arises between authorities dealing with culture and those dealing with natural aspects.

Situation in Asia and the Pacific

It has been revealed through Periodic Reporting that some type of management system is in place in most properties. In some cases, however, there is confusion between management plans and master plans, guidelines, and laws and regulations. Even when States Parties and property managers report that there is a management plan, it does not necessarily refer to a management plan of the World Heritage property itself. The management plan is sometimes of a wider reserve, or covers only some components of the World Heritage property and not the entire property. For example, Te Wahipounamu – South West New Zealand (New Zealand) mentions that there is no single management plan that covers the whole property, but the management consistency and coordination are provided through a management planning framework with the

hierarchy of plans as well as the management structure and plan approval process.

For effective management of the World Heritage properties, coordination among the various levels of administration (i.e. national/federal; regional/provincial/state; local/municipal etc.) is essential, as each level has its own responsibilities and decision-making powers. Less than half of the properties in the region (89 properties or 44.9%) consider the coordination to be excellent, whereas most others feel that it could be improved.

The management plan or system must be adequate to maintain the Outstanding Universal Value of a property. In this respect, only two-thirds of properties consider their management plans

or systems to be fully adequate, and three do not have any management plans/systems. The situation varies between subregions with nearly 90% of properties in North-East Asia and the Pacific having fully adequate management plans/systems, whereas there is room for improvement in other parts of the region.

It is important that these management systems and plans address the factors affecting the properties identified in Chapter 3 so that the management system addresses the specific needs of the property. The Philippines realizes that tourism can have both positive and negative impacts on Puerto-Princesa Subterranean River National Park. Tourism can bring an opportunity to present a clear conservation message to the public and to raise revenue that can be used for the management of the property, but inappropriate tourism could also damage the park or degrade the ecological stability. With a goal of maximizing the tourism benefits, the management plan of the property sets out objectives to develop a sound framework for low-impact visitor access.

There are 119 properties (60.1%) where management systems are fully implemented and 75 properties (37.9%) where they are partially implemented. One property reports that the management system is not being implemented. The difference among subregions is also similar to that of the adequacy of management systems/plans. In the case of the Pacific Island States, however, although their management systems are largely considered to be adequate, 80% of them are only partially implemented.

Management takes place through specific processes or actions within predetermined frameworks. For example, activities relating to an annual work or action plan are largely implemented in most properties (171 properties or 86.3%). Only 14 properties (7%) state that they do not have any annual work/action plan, although 4 of them recognize the need. Among properties without an annual work or action plan, at Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (Thailand) routine activities are specified in the annual budget plan.

Management of World Heritage is usually dependent on the activities of numerous planning and development sectors working in and around the property, such as the authorities responsible for services and infrastructure. It is, therefore, important that good cooperation is maintained with these sectors. It is reported that the cooperation and relationship between the World Heritage property managers and such sectors are in most cases fair to good. However many properties claim that relationships with indigenous peoples, industry and landowners are not applicable. Cooperation is reportedly poor or non-existent with the following: industries (14.6%), landowners (10.1%), tourism industry (9.6%) and indigenous people (7.6%). Cooperation with researchers is reported to be the best.

Many States Parties recognize the importance of involving stakeholders in the management of properties. In order to increase the role of local communities, Keoladeo National Park (India), for example, has initiated ecodevelopment programmes in the surrounding villages as suggested in the management plan. The Ancient City of Polonnaruwa (Sri Lanka) mentions the need for coordination of relevant stakeholders under one entity. The need for closer cooperation with the communities is discussed in more detail on pages 98–99.

Only about half of the properties in the region have indigenous peoples that live in or regularly use the World Heritage property. Of these 92 properties, in only 16 properties (17.3%) do indigenous peoples participate in all decisions and in 9 properties (9.7%) there is no input from indigenous peoples. In respect to cooperation with industry, such as forestry, mining and agriculture, the picture revealed is mixed. There is regular contact and substantial cooperation in about one-third of all properties but little or no cooperation in about 10% of properties. In Australia, for example, the Federal Court made a consent determination in 2007 recognizing the Githabul People's native title rights and interests over 1,120 km² including several reserves within the Gondwana Rainforests of Australia, which led to an Indigenous Land Use Agreement between the Government of New South Wales and the Githabul people. In the Pacific, Chief Roi Mata's Domain (Vanuatu) reports that significant progress has been made by the government in acquiring the lease on Artok Island. This is an attempt by the central government to assume title to land held in customary title in order to implement management arrangements for World Heritage protection.

Suggested follow-up

All the States Parties agreed that the development or improvement of management plans/systems is an utmost priority for all the properties.

It was revealed that there is some discrepancy in the understanding of States Parties regarding what management means and what the management system should be. Some provided information on the laws at national level, whereas others focused on day-to-day management.

A management system/plan provides the frameworks and processes which ensure that the attributes that carry the Outstanding Universal Value of the property are safeguarded. Management is an ongoing process whereas master plans and conservation plans are presentations of static images of possible ideal situations or targets that are to be achieved in the future. These ideal situations, however, can only be achieved if there is an efficient and clear management system in place.

Management plans/systems need to focus on the Outstanding Universal Value of the properties. Considering that all properties have now prepared a Statement of Outstanding Universal Value, the link between Outstanding Universal Value and their management plan or system needs to be clearly articulated.

It is important that management plans/systems are endorsed by the governments and implemented with a time-bound action plan and together with all the stakeholders. It is recommended that the difficulties in implementation be identified and addressed. There is a need for considerable improvement in the involvement of indigenous peoples, where present, in the decision-making process.

States Parties are also encouraged to share the updated information on management documents with the World Heritage Centre.

Boundaries and buffer zones

Requirements

Operational Guidelines

99. The delineation of boundaries is an essential requirement in the establishment of effective protection of nominated properties. Boundaries should be drawn to ensure the full expression of the Outstanding Universal Value and the integrity and/or authenticity of the property.

Adequate boundaries of a property are essential in order to ensure that its Outstanding Universal Value is protected. For cultural World Heritage properties, boundaries should be drawn to include all those areas and attributes which are direct tangible expressions of the Outstanding Universal Value of the property, as well as those areas which in the light of future research possibilities offer potential to contribute to and enhance such understanding. For natural World Heritage properties, boundaries should reflect the spatial requirements of habitats, species, processes or phenomena that provide the basis

for their inscription on the World Heritage List. The boundaries should include sufficient areas immediately adjacent to the area of Outstanding Universal Value in order to protect the property's heritage values from direct effect of human encroachments and impacts of resource use outside the property area (*Operational Guidelines*, Paragraphs 99–101).

A buffer zone is an area surrounding the property which has complementary legal and/or customary restrictions placed on its use and development to give an added layer of protection. This should include the immediate setting of the property and other areas or attributes that are functionally and visually important as a support to the property and its protection. There needs to be a clear understanding of how the buffer zone protects the property. Although buffer zones are not part of the property, any modifications to or creation of buffer zones should be approved by the World Heritage Committee. The creation of buffer zones or any modifications are normally considered to be a minor boundary modification (*Operational Guidelines*, Paragraphs 104–07).

Situation in Asia and the Pacific

For the effective protection of properties, the issue of boundaries and buffer zones should be examined largely from two aspects: their adequacy, and the degree of knowledge of concerned management authorities and local community regarding these areas.

Regarding the adequacy of the boundaries to maintain the Outstanding Universal Value, 156 properties (78.8%) consider them to be adequate, whereas 35 properties (17.6% – 24 cultural, 10 natural and 1 mixed) consider that they can be improved. The remaining seven properties, all cultural, consider their boundaries inadequate. In 161 (81.3%) of the World Heritage properties in the region, the boundaries are considered to be known by the management authorities and the local community. In 30 properties (15.2%) the boundaries are considered to be known by the management authorities but not by the local community. There are 7 cultural properties which report that the boundaries are known by neither the management authorities nor the local community, for which awareness-raising is recommended.

Out of 198 World Heritage properties, 136 (68.6%) have buffer zones. Thirty-two properties report that they need buffer zones but still do not have any, 25 of which are cultural properties. Thirty properties, most of which are natural and mixed properties, answer that they do not have a buffer zone and do not need one. Again, cultural properties are reported as having more adequate buffer zones than natural and mixed properties. A large number of natural and mixed properties had no buffer zone at inscription, and their adequacy should be further examined. At around 70–80% of the properties that have buffer zones, they are known to the management authority and local community.

States Parties are conscious of the need for specific buffer zones for World Heritage properties. A number of properties have buffer zones at national level, although those buffer zones have not been reported to and adopted by the World Heritage Committee.

For example a buffer zone for Tubbataha Reefs Natural Park (Philippines) was established by a national law passed in 2010, but this has never been reported to the Committee. There are also properties, many of which natural, which do not have buffer zones for World Heritage properties, but which are protected by other types of zones at national level. For example Gunung Mulu National Park (Malaysia) is surrounded by National Parks (e.g. Gunung Buda National Park and Labi Forest Reserve, Brunei Darussalam) and other protected areas that serve as a buffer zone. Some of these properties surrounded by other types of zones report that a buffer zone is not needed for this reason. Additionally, there are a few cases where extensions to World Heritage properties are being considered that would require renomination of the property.

Suggested follow-up

As sometimes reported in the state of conservation of properties, lack of clearly defined boundaries and awareness by the local population can be one of the causes of the destruction and degradation of various elements of properties. Therefore it is very important to ensure that a property has clearly defined boundaries and that all stakeholders are aware of this.

This was a major issue identified in the first cycle of Periodic Reporting and not fully followed up. Now it is time to review the boundaries of all properties, and to make sure these boundaries are clearly defined and underpinned by legal provisions. Furthermore, the boundaries must mean something; they must denote zones of differential management, and different rules should apply inside the boundaries than outside. They should not be abstract lines on a map or in virtual space, as with boundaries defined by an arbitrary measure of distances irrespective of the attributes, setting and requirements of each property.

Protective measures

Requirements

Operational Guidelines

98. Legislative and regulatory measures at national and local levels should assure the survival of the property and its protection against development and change that might negatively impact the Outstanding Universal Value, or the integrity and/or authenticity of the property. States Parties should also assure the full and effective implementation of such measures.

Protective measures at national and local levels should assure the survival of the property and its protection against development and change that might negatively impact the Outstanding Universal Value, or the integrity and/or authenticity of the property. These could include legislative, regulatory, contractual, planning, institutional and/or traditional measures most relevant to the protection of the property.

States Parties should also assure the full and effective implementation of such measures. A detailed analysis is required of the way in which this protection actually operates (*Operational Guidelines*, Paragraph 98).

Situation in Asia and the Pacific

The second cycle of Periodic Reporting revealed that the information on protective designation of each property available at the World Heritage Centre is not the most up to date: be it legal, regulatory, contractual, planning, institutional, or traditional. This reflects changes that have occurred since inscription but not reported to the World Heritage Centre. It also suggests that Periodic Reporting is invaluable for providing accurate and current data on properties. Two out of five properties in the Pacific Island States provided information on customary laws and practices (East Rennell, Solomon Islands; Chief Roi Mata's Domain, Vanuatu).

For the safeguarding of a property, adequate protective measures should be provided to the property, its buffer zone and the area surrounding the property and the buffer. The legal frameworks to maintain Outstanding Universal Value, integrity and authenticity of the cultural properties, 89 (64.5%) out of 138 cultural properties are considered to have adequate legal frameworks within the boundaries, 80 (58%) within the buffer zone and 90 (65.2%) in the surrounding area. Three cultural properties consider their legal frameworks inadequate. Legal frameworks are revealed to be less adequate in the buffer zones than in the area surrounding World Heritage properties and buffer zones.

Protective legislation is reported to be tighter within the boundaries of natural properties than those of cultural properties. Nearly 80% of natural properties (40 out of 51) are considered to have adequate legal frameworks. Within buffer zones, around 40% have adequate legal frameworks; while around half of natural properties do not have buffer zones. The protective designation within the area surrounding the natural properties and buffer zones turned out to be much tighter than that within buffer zones. This is probably due to the fact that a number of natural properties are surrounded by other types of protective areas even if they do not have buffer zones for the World Heritage properties as such.

The situation of mixed properties is similar to that of natural properties. Nearly 90% of properties are considered to have adequate legal frameworks within the boundaries, and around 80% within the areas surrounding the World Heritage properties and buffer zones. Of 9 mixed properties, only 3 have adequate legal frameworks within the buffer zones, whereas five properties do not have buffer zones themselves.

In addition to the existence and adequacy of a legal framework, the enforcement of this framework is also important for it to be effective. Around 90% of the properties consider the capacity and resources for enforcement to be either excellent or acceptable. However, major deficiencies are found in 10 cultural and 5 natural properties. Two cultural properties report the unavailability of capacity and resources for the enforcement of legislation or regulations (Fort and Shalamar Gardens in Lahore, Pakistan; Kuk Early Agricultural Site, Papua New Guinea).

The reasons for deficiency in enforcement vary. For example, the Minaret and Archaeological Remains of Jam (Afghanistan) reports that legislative frameworks are adequate within the property and its buffer zone but there are deficiencies in enforcement and major deficiencies in capacity for enforcement due to political instability. In the Pacific Island States, monitoring and surveillance to enforce legislation is a major problem due to the remoteness of the properties. Marshall Islands reports that there are adequate laws in place to protect Bikini Atoll Nuclear Test Site, but some deficiencies exist in the ability to constantly monitor the property due to its remoteness and size, as well as limited resources. Other causes of deficiencies in enforcement include coordination of various legislation. The Sacred City of Kandy (Sri Lanka) mentions that there are enough legal frameworks to protect the property and its values, but there is a need to bring them together under the umbrella of one organization to improve the enforcement of legal frameworks.

Suggested follow-up

Most World Heritage properties in Asia and the Pacific appear to have adequate legal frameworks. However such protective measures need to be reviewed to see whether they are effective in enforcement.

It would also be necessary to ensure that conservation strategies focus on prevention rather than response to threats. The problems need to be anticipated and the cause fixed before the damage is done.

Information on the protective measures of the properties, including regulatory measures and traditional systems, should be properly documented and submitted to the World Heritage Centre.

Financial and human resources

Requirements

Adequate financial and human resources are one of the basic factors for ensuring the management and protection of properties. In order to have adequate resources, all properties first should have a clear understanding of the sources and levels of finance which are available to the property on an annual basis, estimate of the adequacy of resources available, any gaps or deficiencies or any areas where assistance may be required.

The Convention provides support to States Parties through International Assistance for the protection of the world cultural and natural heritage as supplementary to national efforts for

conservation and management. International Assistance is primarily financed from the World Heritage Fund, established under the World Heritage Convention. The World Heritage Committee determines the budget for International Assistance on a biennial basis (*Operational Guidelines*, Paragraphs 233–34).

It is also necessary to understand the staffing levels along with their expertise, skills and qualifications (professional, technical and maintenance). The availability and need of staffing and expertise must be understood for good management of the property, along with future training needs.

Situation in Asia and the Pacific

Funding sources for the conservation of World Heritage properties come largely from national/federal government funding across subregions (between 28.9% and 74.3%). The situation is, however, slightly different in North-East Asia, where the greatest funding source is individual visitor charges (34.6%), and funding from local governments is also substantial (18.2%). When the information is analysed with the level of general awareness of various audiences about World Heritage, it is noted that awareness is very high in North-East Asia. This is an indication that the higher the awareness on the part of the general public, the more it becomes possible to channel funding from them to conservation and management. The individual visitor charges have been identified as one of the major financial sources in this subregion since the first cycle of Periodic Reporting, and it was also recommended in North-East Asia as a result of the first cycle that revenue from tourism activities should be used for conservation and management of the properties. In this respect, the result shows that the outcome of this recommendation has been successful. In the case of the Pacific Island States, the funding comes in equally from various sources including multilateral funding, government funding (national, regional and local), donations (both international and in-country). They, however, do not have any funding from individual visitor charges and commercial operator payments. On the other hand, Australia and New Zealand receive most funding from commercial operator payments in the region.

In all the subregions there are World Heritage properties that have inadequate budgets to manage the property effectively. South Asia has 13 such properties and one property without a budget. West and Central Asia, North-East Asia and South-East Asia each have six properties with inadequate budgets. The Pacific has two properties with an inadequate budget and one property with no budget. The situation looks least favourable in the Pacific Island States.

Most of the existing funding is secure. There are, however, between 3% (North-East Asia) and 23.3% (South-East Asia) of properties reporting their funding to be insecure. The situation in the Pacific Island States is critical with 60% of the properties without secure funds.

Conservation and management of heritage are not simply a costly exercise, but when managed well, they bring economic

benefits to local communities in the form of income and employment. A large number of properties in the region report having a major, or at least some, flow of economic benefits to local communities. Five properties report that there are no benefits delivered, whereas 20 properties recognize the potential benefits and are working towards their realization. In the properties of the Pacific Island States, however, no major flow of economic benefits is seen.

The adequacy of resources for management such as equipment, facilities and infrastructure, has a similar picture across all categories of property. Generally some 75–90% of properties report having adequate available resources; around half of cases with some constraints and in very few cases are resources unavailable. Around one-fourth of the properties report that their equipment is inadequate, and five cultural properties report that they have little or no equipment despite an identified need.

The reported situation regarding maintenance of resources is not as good as the availability of resources. In all property categories there are resources that have little or no ongoing maintenance. The equipment, facilities and infrastructure are few or not maintained in 6 properties with ad hoc maintenance in 19 properties, totalling about 12.6% of the properties in the region.

Many States Parties mentioned the need for improved finance and infrastructure for the management of their properties. East Rennell (Solomon Islands) reports that there is no infrastructure and/or working budget provided, an example in which the national government gives no direct support for management of the World Heritage property. Some States Parties introduce examples of how the properties are securing funding. For example, the Historic Centre of Macao (China) explains that the revenue collected from the tourism industry, including taxes relating to the local gaming sector, is reinvested into various community programmes with a special focus on heritage conservation works. There is a yearly budget and corresponding heritage protection agenda that enable an appropriate allocation of financial resources. In New Zealand, the Department of Conservation established a Commercial Business Unit to investigate opportunities for securing funding for Te Wahipounamu – South West New Zealand from sources such as sponsorship or investment from businesses, as the

property has many attributes attractive to the tourism industry that could serve as a source of income for management of the property.

Regarding human resources, the general distribution of employees across all properties is similar, with properties having more than 80% of their staff permanent full time and more than 90% of staff being paid. Only about 4–6% of the workforce are voluntary.

Generally fewer than half of properties have adequate human resources for management needs. The greater number of properties report that human resources are below optimum or inadequate. A few properties commented on the causes of the difficulty of sustaining human resources and the transfer of knowledge and expertise. The causes vary from aging of staff, the need to recruit and train the younger generation (Tasmanian Wilderness, Australia) to the seasonal nature of work (Buddhist Monuments at Sanchi, Khajuraho Group of Monuments, India). The situation is more severe in the Pacific Island States, and East Rennell (Solomon Islands) reports having no dedicated human resources.

Management requires trained people to carry out the required processes which include research, awareness-raising, monitoring, implementing and enforcement. Regarding the availability of professionals in relation to management needs, 37% of properties on average report the availability of good expertise across various disciplines such as conservation, administration, visitor management, enforcement, and research and monitoring. There are 14.5% of the properties on average reporting that professionals are non-existent or poorly available. Among the disciplines, conservation and administrative professionals are most readily available. The least available professionals are in the fields of community outreach, education and risk preparedness.

Training opportunities for the management of properties within the region are reported as generally favourable in all disciplines. Remarkably, the opportunities appear to be evenly spread across all these disciplines. Training opportunities in these disciplines are on average good in 16.2–37.4% of properties. There are 21.2–39.9% of properties that have no or low opportunities for training. Community outreach and risk preparedness are the two disciplines with the lowest availability of training opportunities in general, although some subregional differences are found.

From the reported results it appears that there is good development of local expertise deriving from management and conservation programmes at World Heritage properties. More than 80% of properties (174) either fully or partially implement capacity-development plans, through which technical skills are being transferred to local expertise. There are no capacity-development plans in 14 properties (7.1%) and in 10 properties (5.1%) such plans have been drafted but not implemented.

Several site managers also commented that training local communities and indigenous people to engage them in the management of properties is a challenge. Properties such as East Rennell (Solomon Islands), owned and managed by local people based on traditional use of resources, recognize a major need for formally recruited and properly trained staff to address management needs. The Sacred City of Kandy (Sri Lanka) also notes the limit of knowledge transfer to the local authorities and traditional custodians. There is a need for an effective method of transferring the expertise to the local community.

Examples of addressing challenges of human resources and expertise are provided by some properties. Kakadu National Park (Australia) reports that the park implements training and business development programmes to support indigenous employees and non-employees. The park also has a flexible, project-based employment programme providing a range of different employment pathways such as apprenticeships, traineeships and contractual and ongoing employment. In Te Wahipounamu – South West New Zealand (New Zealand), the department responsible with skilled staff works with community programmes, through which it engages with local communities, schools and interest groups to foster a greater understanding and commitment to conservation and provides advice and resources to assist these groups in delivering conservation outcomes in their areas of interest.

Suggested follow-up

There is clearly much room for improvement in expanding financial resources and establishing a sustainable funding mechanism by involving individuals and the private sector. Most funding is still reported to be coming from the government with some support from international funding. An overall sustainable business plan would ensure funding from various sources.

Provision of the necessary personnel is also a matter requiring considerable attention and should be a priority for future planning. There is considerable scope for increasing the voluntary component in managing World Heritage properties. Experience shows that volunteers can provide very substantial additional management capacity at little added cost. Additionally, there is clear potential for realizing greater benefits in the form of employment and income, and sharing these benefits with local residents and communities.



Volunteers can provide very substantial additional management capacity.

Visitor management

Requirements

A very important component of the management plan or system is the management of visitors. Visitors are one of the factors that affect both positively and negatively most World Heritage properties. The States Parties must therefore collect information on the status of visitation to the property. The properties must define their carrying capacity and how their management could be enhanced to meet the current or expected visitor numbers and related development pressure without adverse effects. Possible forms of deterioration of the property due to visitor

pressure and behaviour need to be considered, including those affecting its intangible attributes.

Attention should also be given to measures concerning visitor management and promotion. States Parties are encouraged to provide statistical information, if possible on an annual basis, on income, visitor numbers, staff and other items such as facilities, visitor centres, site museums, trails, guides, information material, special events and exhibitions that are made available to visitors.

Situation in Asia and the Pacific

As reported in the factors affecting the properties (Chapter 3), the impact of tourism and visitors is a concern for most of the subregions. Tourism can have both positive and negative impacts. All properties report a general pattern of increase in annual visitation over the past five years. This increasing trend is consistent throughout this period and across the region. Over these years more than half of the properties in the region (121 properties or 61%) have experienced a minor increase in annual visitation. A major increase in annual visitation is reported in 22 properties (11%). These results reveal that inscription of World Heritage properties brings with it a marked increase in public interest and visitor use. These visitor statistics are collected to a large extent from entry tickets and registries, but also from visitor surveys, tour operators, accommodation establishments and transportation services. Facing an increased amount of visitors, visitor management becomes one of the most important issues in property management.

There are 62 properties, around half of which are from North-East Asia, that report the existence of an appropriate visitor use management plan and the effective management of visitor use to ensure that their Outstanding Universal Value is not impacted, while 102 (51.5%) properties report that their visitor use is managed but requires improvement. There are, however, 11 (5.6%) properties distributed throughout the subregions that have no active management of visitors.

In order to allow visitors to correctly understand the value of properties, it is important that information on Outstanding Universal Value is presented and interpreted. Approximately two-thirds of the properties in the region report the need for improvement in this regard.

Regarding various visitor facilities and services for education and awareness-raising such as visitor centres, site museums, information booths and guided tours, States Parties report a high degree of adequacy. Only in about 10–20% of cases is the service provision rated as poor. Among these facilities and services, the provision of information materials and guided tours are reported to be the most effective mechanisms. Good use is made of the World Heritage emblem at properties too. In 143 properties (72.2%), the emblem is used at many locations although is not always clearly visible.

Several measures are being taken in various World Heritage properties in Asia and the Pacific to manage visitors and their needs. For example, the mixed property of Willandra Lakes

Region (Australia) mentions that visitor use is steadily increasing despite the remoteness and fragility of the landscape, which limit potential visitor numbers. Tourism management focuses on improving the visitor experience for those who come to the property. The Kuk Early Agricultural Site (Papua New Guinea) mentions that, as the site is small and buried, Outstanding Universal Value is not visible to visitors. There are currently no visitor facilities provided at the property, but a policy on visitor use and facilities will be developed through a management planning process.

The tourism industry can play an important role in improving visitor experience and maintaining the values of the World Heritage properties. In only 41% of properties is there excellent cooperation and in all other cases, cooperation is rated as limited in scope and in contact.

As discussed in the previous section on financial resources, visitor charges can be a good source of income for the conservation and management of properties. Fees are collected in virtually all properties in the region, but only in 148 properties (75%) is there either some or a substantial contribution to management of the property. In 27 properties (14%) fees are either non-existent or not collected. In relation to fee collection, the Mahabodhi Temple Complex at Bodh Gaya (India) comments that the property is a living Buddhist temple and most visitors are pilgrims and not tourists for sightseeing. Although entry to the property is free, maintenance, conservation and management are financially supported by the donations of these visitors.

Suggested follow-up

Throughout the region there is room for improvement in visitor management. Tourism does have a great impact on heritage: on both tangible and intangible qualities.

Efforts are required to improve the quality of tourism to minimize impact. Collection of user fees in World Heritage properties could be improved along with the direct application of these revenues to the costs of management. There is considerable room for further development of contact between commercial tour operators and the World Heritage site managers.

Most importantly, the management strategy needs to respond to the visitor capacity of the properties. Once the maximum bearing capacity has been reached it would be unsustainable, irresponsible and unethical for the management strategy to continue focusing on increasing the number of visitors.

Monitoring

Requirements

Monitoring is one of the main activities in the process of managing a World Heritage property. Monitoring is the regular observation of the property to assess any possible negative or positive changes that might have taken place. The *Operational Guidelines* also put processes in place for monitoring the state of conservation of World Heritage properties. Reactive Monitoring allows the Secretariat, other sectors of UNESCO and the Advisory Bodies to report to the Committee on the state of conservation of specific World Heritage properties that are under threat. Reactive Monitoring is also foreseen in reference to properties inscribed, or to be inscribed, on the List of World Heritage in Danger and the procedures for the eventual deletion of properties from the World Heritage List (*Operational Guidelines*, Paragraphs 177–98). Additionally, Periodic Reporting, which takes place approximately every six years, provides an opportunity to assess the state of implementation of the World Heritage Convention (*Operational Guidelines*, Paragraphs 199–210).

Monitoring of the properties must however be carried out on a regular basis. States Parties are requested to determine key indicators to measure and assess the state of conservation of the property, the factors affecting it, conservation measures at the property, the periodicity of their examination, and the identity of the responsible authorities. Up-to-date information should be provided in respect of each of the key indicators (which can be quantitative and qualitative attributes). Care should be taken to ensure that this information is as accurate and reliable as possible, for example by carrying out observations in the same way, using similar equipment and methods at the same time of the year and day. It should also indicate which partners, if any, are involved in monitoring and describe what improvement the State Party foresees or considers desirable in improving the monitoring system.

Situation in Asia and the Pacific

In 113 of the 198 properties in the region, it is reported that there is a comprehensive monitoring programme directed towards management needs, and in a further 54 properties the level of monitoring is regarded as considerable but not necessarily directed towards management needs. The situation is similar in all property types, but in 5 cultural properties there is no monitoring reported.

In order to have effective monitoring of the properties, key indicators for measuring its state of conservation need to be defined, which should be underpinned by the information on the values of the properties. 167 properties (84.3%) have key monitoring indicators, but of these only 65 properties (38.9%) find the information on the values of the property sufficient for defining and monitoring key indicators to see how the Outstanding Universal Value is maintained, while 102 properties (61.1%) think that the key indicators could be improved. 70% of the properties with sufficient indicators are cultural properties. In 18 properties key indicators have not been defined despite sufficient information, while in 6 properties there is little or no information available on their values.

Monitoring is mainly carried out by the World Heritage site managers and staff. Their involvement is excellent or at least average in 187 properties (94.5%). However there are three properties which state that the involvement of the World Heritage site managers and staff is poor, six properties non-existent and two properties not applicable, together making 5.5% of the properties in the region. The local authorities, local communities and NGOs are also involved in monitoring to a certain degree. The involvement of indigenous peoples is not applicable in 47% of the properties, and their involvement in the remaining 53% of properties is rather low.

Each time the World Heritage Committee examines the state of conservation of a property through Reactive Monitoring, it provides recommendations based on the assessment. There are 134 properties (67.7%) that have received recommendations

from the World Heritage Committee. Of these, 33 properties (24.6%) answer that they have completed the implementation of the recommendations, while 93 properties (69.4%) are in the process of implementing them. Eight properties have not begun implementation. There are 79 properties that provided comments regarding the implementation of the recommendations by the World Heritage Committee, many of which reported the progress made. Some reported a positive impact of the implementation of recommendations to the properties. Others pointed out the importance as well as the challenge of involving local communities in the process of implementation.

Comments on monitoring have been provided by 84 properties, many of which indicate the importance of using the monitoring outcome for the management of the properties. Some commented that it is also important to involve local communities, NGOs and industries. Others mentioned that the monitoring should be included in a management plan. Natural properties appear to have clearer monitoring indicators.

Suggested follow-up

Ideally all properties should carry out comprehensive management-oriented monitoring, covering all elements of Outstanding Universal Value. Monitoring must be embedded in continuing community-led action and not something that is done once in a while by an expert. Monitoring must also be linked to planning and response to the outcome of the monitoring.

For many properties key indicators for monitoring need to be identified and put in place. Further training, capacity-building and relevant funding are also required. The following document can be referred to: *Monitoring World Heritage*, 2004, UNESCO World Heritage Centre (World Heritage Paper No. 10).

Community involvement

Requirements

Operational Guidelines

117. States Parties are responsible for implementing effective management activities for a World Heritage property. States Parties should do so in close collaboration with property managers, the agency with management authority and other partners, and stakeholders in property management.

States Parties have the responsibility to adopt general policies to give heritage a function in the life of the community (Article 5 of the World Heritage Convention and *Operational Guidelines*, Paragraph 15.b).

Community is one of the five Strategic Objectives of the World Heritage Convention along with Credibility, Conservation, Capacity-building and Communication ('5Cs') identified by the World Heritage Committee.

Situation in Asia and the Pacific

About half of the region's properties are reported to have some input from local communities in management decisions. A few properties have much closer cooperation with local communities as in the 25 properties (12.6%) where communities participate in all decisions.

The key point about the Asia and the Pacific region is that, for the most part, heritage is still living and is in the hands of its creators and users (not in the hands of absent caretakers). This gives the region an immense advantage, if community-based management structures are maintained and not undermined by imported alien models.

In Sangiran Early Man Site (Indonesia), where there are more than 200,000 residents living in the property and the land is privately owned, community involvement is a crucial issue. As an archaeological site, industrial methods for agriculture cannot be used to increase the production to sustain their income and livelihood, as it could negatively impact the conservation of fossil remains. There are also some problems with sand mining within the property. In order to compensate this unavailability of industrial land-use and to address the mining problem, a number of programmes have been initiated to develop tourism ventures and local handicrafts. In order to involve the community in the management of the property, awareness-raising and training of the local community, as well as a study on the role of women in the preservation of the property and development, have been carried out.

In Prambanan Temple Compounds (Indonesia), prior to the 2006 earthquake, a management development strategy was being elaborated. This strategy included extending the management of the Prambanan temples to the cultural heritage located on the nearby hills. It also envisioned the creation of a planning and management body in the area, the introduction of environmental impact controls, and the revision of current regulations to enable improved community participation in cultural and environmental conservation activities.

The Nara Document on Authenticity also addresses the close link between heritage and community in Article 8. 'It is important to underline a fundamental principle of UNESCO, to the effect that the cultural heritage of each is the cultural heritage of all. Responsibility for cultural heritage and the management of it belongs, in the first place, to the cultural community that has generated it, and subsequently to that which cares for it. However, in addition to these responsibilities, adherence to the international charters and conventions developed for conservation of cultural heritage also obliges consideration of the principles and responsibilities flowing from them. Balancing their own requirements with those of other cultural communities is, for each community, highly desirable, provided achieving this balance does not undermine their fundamental cultural values.'

It is therefore of the utmost importance that communities are fully involved in the management of the properties.

In Borobudur Temple Compounds (Indonesia) there is great concern regarding the physical deterioration of the monuments. Training sessions were organized for the local population, including tour guides and craftsmen, to promote the development of local activities for income generation and community participation in heritage conservation.

Communities can help to monitor the state of conservation of properties without any formal procedures. For example, in the Historic Centre of Macao (China) concerns were expressed by the community on possible negative impacts of development projects on the visual integrity of the World Heritage property.

The involvement of the community is essential for implementing development controls. In the Old Town of Galle and its Fortifications (Sri Lanka), repairs to a number of buildings in the Old Town have been completed while other significant buildings continue to decay and inappropriate illegal alterations and constructions are taking place. It is understood that the conservation objectives need to be accepted by the local community and residents and property owners need to be educated in this respect.

The Rice Terraces of the Philippine Cordilleras (Philippines) is mapping the five cluster sites with regard to community-based land use and zoning plans. This would allow putting into place zoning and land-use plans responding to community-based activities and traditional value systems. Regulations are required for tourism and infrastructure development to encourage community-based tourism.

The Cultural Landscape and Archaeological Remains of the Bamiyan Valley (Afghanistan) needs the support of the local community, and the Bamiyan Council leaders (Shura). In order to gain the support of the local community, there was a general consensus that it was necessary to move from studies and consolidation to more visible activities.

Communities are better positioned to be directly involved in addressing critical issues because they know the site conditions best. For example, in Keoladeo National Park (India) a plan was formulated for regular monitoring and removal of *prosoxis* by involving the local community.

The Tropical Rainforest Heritage of Sumatra (Indonesia) gives several examples of the successes achieved, such as the establishment of a community group to assist park rangers in monitoring illegal activities and the relocation of political refugees to South Sumatra Province. It was noted that community development programmes were conducted in all three components of the property, with the objective of improving livelihoods, decreasing dependence on and raising awareness of the property's biodiversity. Illegal logging has decreased as a result of anti-logging activities and the deployment of independent community-based Forest Protection System units.

In Gunung Mulu National Park (Malaysia), local communities are involved in the management of the property through both governance arrangements and within the staffing of the property. In this property, 84% of the staff and 72% of the park guides are from local communities. Leaders of local communities are members of the Special Park Committee, by which local communities are participating in decision-making regarding the management of the property. A joint management committee also involves various stakeholders, monitoring the park management and its budget. In addition, direct and indirect mechanisms were put in place for the local communities to participate in economic activities and to share benefits of tourism income such as through participation in park guiding, employment opportunities inside and outside the park, and provision of services and amenities such as treated water at no cost. Such economic opportunities contribute to reducing the local community's dependency on natural resources collected from the park. This community involvement was welcomed by the World Heritage Committee.

In East Rennell (Solomon Islands), while a management plan has been approved and administered by a community organization, the property is still not protected under national law as there

is no national legislation for protected areas in the country. However, East Rennell is protected under customary law. It was noted that there were unrealistic expectations among members of the local community with regard to rural development. It was anticipated that World Heritage status would bring immediate benefits, especially financial, to all the people. It was also expected that there would be substantial improvements to schools, medical centres, transport infrastructure, housing and enhanced tourism. The absence of such benefits has led to disappointment, confusion, suspicion, division and anger within the community.

Dong Phrayayen-Khao Yai Forest Complex (Thailand) reports that large-scale encroachment along the northern boundary has significantly increased as a result of local community efforts to prevent this land, for which they claim ownership, from being designated as a National Park.

In Sagarmatha National Park (Nepal), observations have been made of deforestation and land degradation, mainly in the buffer zone and a number of enclaves within the park, due to the extensive use of wood for domestic purposes. There is potential for the use of alternative energy sources, such as electricity and gas, and a potential role for the community groups, such as Community Forest User Committees and Community Forest User Groups in the promotion of these sources.

In Lorentz National Park (Indonesia) various activities have been initiated in cooperation with the community. Institutional capacity was strengthened of three local NGOs to develop skills in Participatory Rural Appraisals (PRA), project planning and monitoring, identification and development of alternative income sources, community organization, advocacy and communications. Community-based approaches to natural resources management was promoted by documenting traditional practices of the three main ethnic groups using the park's resources. Alternative sources of income were identified in order to minimize community dependence on forest resources. The recognition of community rights and knowledge was encouraged along with enhancing community participation in site management.



Discussion with the members of the community in East Rennell (Solomon Islands)

Suggested follow-up

Encouraging community participation in all stages of the World Heritage process, conservation and management of the properties in particular, is identified as one of the most important issues both in the Suwon Action Plan and the Pacific Action Plan 2010–2015.

Ensuring long-term management is closely linked to the involvement of local communities, which are the owners and guardians of the properties. Awareness-raising, education and capacity-building will ensure that the communities have the adequate knowledge and skills to engage in various activities.

Benefit sharing with communities is also indicated in two Action Plans. This will foster the sense of ownership and encourage stewardship in communities.

In order to encourage community participation in the conservation and management of properties, an appropriate mechanism for involving communities should be developed.

5

Conclusion



East Rennell, Solomon Islands © Paul Dingwall

Introduction

The second cycle of Periodic Reporting gave all States Parties in Asia and the Pacific an opportunity to comprehensively examine the situation related to the implementation of the World Heritage Convention in their country and the state of conservation of 198 World Heritage properties. Many States Parties, especially site managers, found this exercise useful for their daily work, and some expressed their wishes to update the information regularly. Not only was Periodic Reporting

an opportunity for assessment and information update, but also it gathered focal points and site managers on several occasions, providing them with an invaluable opportunity to share information and experience, gradually developing a mechanism for regional cooperation. In this respect, Asia and the Pacific has successfully achieved all four objectives of Periodic Reporting.

Key issues for Asia and the Pacific as a result of the second cycle of Periodic Reporting

Through the second cycle of the Periodic Reporting exercise, four key issues for the region have emerged:

- Management plans/systems
- Sustainable funding mechanism
- Community involvement and benefit sharing
- Regional cooperation

Management plans/systems

All the States Parties in Asia and the Pacific unanimously agreed on the importance of the development or improvement of management plans/systems. This is a significant change from the first cycle, when the issue of inventories and nominations still received considerable attention. By 'development or improvement of management plans/systems', the following points have been stressed by States Parties:

- A management plan/system needs to focus on the Outstanding Universal Value of a property, and it needs to be officially endorsed or legalized by the national government.
- Both human and non-human factors affecting the properties should be systematically addressed through a management

plan/system. In particular, this includes visitor management and disaster risk reduction, which are rated as being among the top priorities and concerns in the region.

- A management plan/system needs to be implemented with a time-bound action plan and monitoring of the plan should be strengthened, through which management needs are addressed in a pre-emptive manner.

States Parties also consider management activities to have a positive impact on the properties. Accordingly, management plans/systems should be actively and effectively implemented in all properties.

Sustainable funding mechanism

Throughout the region, a large portion of the funding comes from national governments, and international funding also plays an important role in some subregions. It has become clear, however, that funding is never sufficient. Funding from the governments can never meet the growing financial demands in the conservation and management of properties, and it is also not realistic to keep relying on international funding. This means that the establishment of a more sustainable funding mechanism for properties is urgently needed, and available funding needs to be effectively allocated to priority needs.

There are some windows of opportunity to this end:

- Considering the high level of awareness of various sectors (e.g. communities, private sector, tourism industries), more cooperation and partnership with these sectors should be sought.

- Visitor charges can be more widely introduced and better used for the conservation and management of properties.

In Asia and the Pacific, the general awareness of various sectors about World Heritage is reported to be very high, especially in North-East and South-East Asia as well as Australia and New Zealand. The high awareness of the private sector and the tourism industry suggests that there are opportunities for more cooperation with them. World Heritage properties are invariably popular tourist destinations too. Coupled with the high awareness of the tourism industry and the general public, the income from visitors can be better used for the conservation and management of properties. In this respect, North-East Asia has already been successful. Here it was recommended as a result of the first cycle that revenue from tourism activities should be used for conservation and management, and now visitor charges constitute the subregion's greatest financial

resource. A strengthened partnership with the private sector and the effective use of financial returns from tourism should be further explored in the entire region.

Community involvement and benefit sharing

The importance of community – one of the ‘5Cs’ of the World Heritage Convention – was directly and indirectly discussed throughout the Periodic Reporting exercise. Four issues in relation to community should be highlighted:

- It is essential that the local community is involved in every aspect of the implementation of the World Heritage Convention, to ensure adequate conservation and management of the World Heritage properties.
- Heritage has an important role to play in the life of communities.
- In order to encourage communities to be engaged in the conservation and management of properties, an appropriate mechanism for involving communities should be developed.
- The social benefits arising from heritage management should be shared equitably with community members.

Communities should be involved in all areas of activity for the implementation of the World Heritage Convention – from the preparation of inventories, Tentative Lists and nomination files, to the conservation and management activities of World Heritage properties. Awareness-raising, education and capacity-building are essential in order to give adequate knowledge and skills to communities, and to engage them in various activities.

Regional cooperation

Through the implementation of Periodic Reporting, national focal points and site managers gathered in various workshops. These workshops provided them with an opportunity to exchange information and experience on various issues relating to the implementation of the World Heritage Convention and the conservation and management of properties. Everyone, site managers in particular, found this exchange useful. Meeting together several times facilitated the gradual development of a network of focal points and site managers in Asia and the Pacific. Many States Parties expressed their wish to maintain this network, which could enhance their day-to-day work on the conservation and management of World Heritage properties.

The following points regarding regional cooperation have been recognized through Periodic Reporting:

- Exchange of information and experience is useful in addressing factors affecting properties. Some of the factors, especially non-human factors, quite often do not have immediate solutions. The exchange of information,

the higher their awareness, the more they will contribute to the management of properties. Communities could also be involved in monitoring of properties, complementing the available human resources, which are commonly in deficit. Indeed, communities are crucial in all aspects of activities discussed throughout the Periodic Reporting exercise.

It is not just that communities are important for the implementation of the World Heritage Convention. As Article 5 of the Convention says, heritage also has a function in the life of communities. Heritage has multiple roles to play in various fields – from social and economic to educational and symbolic. Moreover, communities, which are in effect the owners of properties, should be able to make the most of their full potential by being actively involved in heritage management.

Benefit sharing would enhance the sense of ownership and encourage stewardship in communities. This would further lead to heightened awareness and better conservation and management of properties. This virtuous circle would benefit both heritage and the community, which is a step forward to sustainable development.

experience and research results is encouraged to find measures against common threats.

- Areas of cooperation can also be found in common types of heritage. Establishment of databases on studies and conservation will be useful, as well as the development of a network of focal points and site managers.

In the past, a series of workshops on the conservation of Persian, Timurid and Mogul architectures was carried out among some States Parties from West, Central and South Asia. This exchange of experience can be expanded to other types of heritage too.

In order to encourage more direct contacts among site managers and the maintenance of the regional network that has been established through the Periodic Reporting exercise, an interactive DVD is supplied with this publication. The DVD will allow users to search information on properties according to chrono-regional, thematic, material and biophysical landscape/seascape types, the factors affecting the properties, and contact details of site managers, as well as other basic

information including criteria and year of inscription. It is hoped that this DVD will serve as a first step towards the development of enhanced regional cooperation for the better implementation of the World Heritage Convention.

Follow-up to Periodic Reporting

The key issues identified as a result of, or in conjunction with, the Periodic Reporting exercise are reflected in the two Action Plans (Suwon Action Plan and Pacific Action Plan 2010–2015) and translated into some actions by subregion. It is recommended that these common issues be addressed jointly by all the States Parties in the region. At the same time, it is important that these regional Action Plans are also reflected in national action plans, so that each State Party and its site managers will work towards the common goals. National action plans can also integrate specific national needs, which can be better addressed by an individual State Party.

For the implementation of Action Plans, the lack of resources can be a challenge. There are, however, some States Parties that have pledged to organize subregional workshops on different topics; other States Parties have already organized national workshops or developed national action plans. While the issue of resources cannot be underestimated, it should also be stressed that in taking action every small step counts as important progress.

In order to make a concerted effort as a region, all the States Parties are encouraged to send the World Heritage Centre any information, updates, questions and suggestions for continuing follow-up to Periodic Reporting. This would allow the World Heritage Centre to keep all the States Parties adequately informed, all the information updated, and coordinate various efforts that are being taken across the region in the most effective manner.

Periodic Reporting provided us with a great opportunity to assimilate the most up-to-date information on what is happening with the implementation of the World Heritage Convention and the state of conservation of all the properties in Asia and the Pacific. Periodic Reporting is, however, not just a formal process that happens every six years. What is most important is how to take action based on what was found through this exercise. That will determine the true success and achievement of Periodic Reporting.

6

Annex



Kaziranga National Park, India © M & G Therin-Weise

Selected scientific and technical studies and research in Asia and the Pacific

State Party	Name	Date	Scope	Type	Website
Australia	Cooperative Research Facility for Tropical Rainforest Ecology and Management (Rainforest CRC)	1993-2006	National, regional	Natural	http://www.rffc.org.au/rffc/downloads/rainforestcrc_library.pdf
	Marine and Tropical Science Research Facility (MTRSF)	2006-	National, regional	Natural	
	Implications of climate change for Australia's World Heritage properties: a preliminary assessment	2006-2009	National, regional, local	Cultural, Natural	http://www.environment.gov.au/heritage/publications/climatechange/
	Economic activity of Australia's World Heritage areas	2008	National, regional, local	Cultural, Natural	http://www.environment.gov.au/heritage/publications/report/index.html
	World Heritage, World Futures: a sustainable conservation project for the Royal Exhibition Building	Ongoing	Local	Cultural	http://136.154.202.7/reb/about-us/world-heritage-world-futures/
Bangladesh	Excavation on Khan Jahan's residence, Bagerhat Mosque city	2007-2008, 2008-2009	Local	Cultural	
Cambodia	Recherche archéologique sur l'urbanisme de la cité d'Angkor Thom	2004	International	Cultural	www.autoriteapsara.org
China	Research on the monitoring system of World Cultural Heritage	2010	National	Cultural	www.sach.gov.cn
	Research on post-earthquake restoration of Sichuan Giant Panda Sanctuaries	2008	Regional	Natural	www.scjst.gov.cn
	Taiwanensis rejuvenation and vegetation restoration	2010	Local	Natural	www.chinahuangshan.gov.cn
	Research on World Heritage protection of Sichuan Province	2010	Regional	Cultural, Natural	www.scjst.gov.cn
	Effect of World Heritage on social development	2010	National	Cultural	www.sach.gov.cn
Fiji	Conservation study of heritage buildings in Levuka, Ovalau, Fiji	1994	Local	Cultural	www.true.local.com.au
	Maritime archaeological Investigation of the Port of Levuka	1998	Local	Cultural, Natural	www.anmm.gov.au
	Comparative analysis of Levuka Historical Port Town to other ports on World Heritage List	2004	National	Cultural, Natural	www.deakin.edu.au
	Artefact identification of archaeological sites in Levuka and Levuka Cultural Landscape GIS mapping	2005, 2008, 2009	Local	Cultural, Natural	www.sonoma.edu/
	Integrated Approaches to Participatory Development (IAPAD)	2005, 2007	National	Cultural, Natural	http://www.iapad.org/applications/plup/ovalau.htm
India	Building partnerships to support UNESCO's World Heritage Programme: India	Ongoing	National	Natural	http://www.knpwhs.org/ ; http://www.ndwhs.org/
Indonesia	Research on the impact of volcanic ashes of Merapi Volcano eruption in Borobudur Temple	2010	National	Cultural	
	Research on the role of Sangiran community in gender perspective economic development	2010	National	Cultural	
	Research study of structure Siva Temple in Prambanan Temple	2009	National	Cultural	
	Research on forest dieback as the impact of harsh forest in Lorentz National Park		National	Natural	
	Research on invasive species in Bukit Barisan Selatan National Park at Tropical Heritage Rainforest of Sumatra		National	Cultural	

State Party	Name	Date	Scope	Type	Website
Kazakhstan	Database of information on cultural heritage properties in the Tentative List of Kazakhstan	2009 -	National	Cultural	
	Project for protection zones of the Ancient Turkestan archaeological site and heritage properties of the old Turkestan city	2010	National	Cultural	
Kiribati	Assessment of environmental effect of pest eradication in the Phoenix Islands	2008	National	Cultural, Natural	
	Atoll restoration in the Phoenix Islands, Kiribati survey results November to December 2009	2011	National	Cultural, Natural	
Korea, Republic of	World Heritage in-depth monitoring project	2003-2008	National	Cultural, Natural	www.cha.go.kr
	World Heritage promotion activities research project	2008	National	Cultural, Natural	www.cha.go.kr
	Research on the revision of buffer zones of World Heritage properties	2010	National	Cultural, Natural	www.cha.go.kr
	World Heritage interpretation research project	2011	National	Cultural, Natural	www.cha.go.kr
Malaysia	Preliminary findings on mammals survey at Gunung Mulu National Park	2009	Local	Natural	
	Amphibians of Mulu National Park	2009	Local	Natural	
	Ichthyofauna survey of Sayap, Kinabalu Park, Sabah	2007	Local	Natural	
	Observation of the rare Agamid lizard <i>Caloteskinabaluensis</i> de Grijs	2007	Local	Natural	
	Notes on Zingiberaceae in Serinsim northern part of Mount Kinabalu	2007	Local	Natural	
Myanmar	Research project for Pyu Ancient Cities	2003 -	National	Cultural	http://www.myanmar.com/Ministry/culture/
Nepal	Species research and conservation – rhino	2008	National	Natural	www.dnpwc.gov.np
	Research and conservation – tiger	2011	National	Natural	www.dnpwc.gov.np
	Tiger – GPS collaring	2011	National	Natural	www.dnpwc.gov.np
	Species research and conservation – elephant	2004	National	Natural	www.dnpwc.gov.np
	Genetic study of vulture	2011 -	National	Natural	www.dnpwc.gov.np
New Zealand	Campbell Island teal reintroduction plan	2003	Local	Natural	
	Effects of pest control on forest invertebrates in Tongariro National Park	2006	Local	Natural	
	Caring for archaeological sites	2007	National	Cultural, Natural	
	New Zealand's remaining indigenous cover: recent changes and biodiversity protection needs	2008	National	Natural	
Pakistan	Archaeological research work at Jinan wali Dheri, Taxila	2006	Regional, local	Cultural	
	Archaeological research work at Badalpur, Taxila	2007	Regional, local	Cultural	
	Archaeological research at Moenjodaro	2007	Regional, local	Cultural	
	Excavation at Buddhist site of Takht-i-Bahi, Mardan	2005	Regional, local	Cultural	
	Conservation, preservation and restoration at Shish Mahel, Lahore Fort	2008	National, regional, local	Cultural	

State Party	Name	Date	Scope	Type	Website
Palau	Research on the Yapese quarry sites in Airai	2006	National	Cultural	
	Research on coral reefs and coastal areas	Ongoing	National	Natural	
	Traditional Imeong cultural village	2010	National	Cultural	
	Earthwork and terraces	2009	National	Cultural	
Papua New Guinea	Kokoda Track and Owen Stanley ranges, including Mt Victoria, Kosipe and Mt Albert Edward	2009-2011	National, local	Cultural, Natural	
Philippines	Nurturing Indigenous Knowledge Education (NIKE)	2006-	Regional	Cultural	www.nikeprogramme.org
	Integrated Coastal Enhancement Coastal Research, Evaluation and Adaptive Management for Climate Change Program (ICE-CREAM)	2009-	Local	Natural	www.tubbatahareef.org
	Heritage Homeowner's Preservation Manual, Vigan, Philippines	2010	Local	Cultural	
	Maximizing the value of ecological and socio-economic data in support of conservation, planning for key understory bird species in Palawan, Philippines	2009	Local	Natural	
	Developing infrastructure guidelines for the Rice Terraces of the Philippine Cordilleras	2009	Local	Cultural	
	Cetaceans, sharks, turtles, fish and benthos, Crown of Thorns, invertebrates and seabirds	2010	Local	Natural	www.tubbatahareef.org
Tonga	Langi Tombs	Ongoing	Local	Cultural	
Turkmenistan	National training on the conservation of earthen structures	2007	Regional	Cultural	
Uzbekistan	Documentation of cultural heritage using GIS in condition assessment of urban fabric of Historic Centre of Bukhara	2005-2011	National	Cultural	
Vanuatu	Development and World Heritage in Chief Roi Mata's Domain (CRMD)	2008-	Local	Cultural	
	Nominating CRMD for World Heritage listing, an assessment of costs and benefits	2009	Local	Cultural	
	Unseen monuments, managing Melanesian Cultural landscapes	2011	Regional	Cultural	
	CRMD, challenges for a World Heritage property in Vanuatu	2009	Local	Cultural	
	Artok biodiversity and traditional knowledge survey	2010	Local	Cultural	
Viet Nam	Project: plan for preserving and promoting the values of Complex of Huế monuments for the period 1996-2010 and Project: amendment to the plan for preserving and promoting the values of Complex of Huế monuments for the period 2010-2020	1996-2010, 2010-2012	National	Cultural	www.huedisan.com.vn
	Integrated culture and tourism strategy toward sustainable development in Quang Nam (home to two World Heritage sites)	2009-2011	Local	Cultural	www.hoianheritage.net

Selected training and educational programmes in heritage conservation and management in Asia and the Pacific

State Party	Organization	Scope	Type	Programme	Level	Website
Australia	Deakin University	International, national, regional, local	Cultural	Cultural heritage (e.g. heritage and sustainable cultural tourism, cultural landscapes, conservation management planning, heritage law, planning and property market)	Master's, one-year graduate certificate (part time), one-year graduate diploma	www.deakin.edu.au/arts-ed/chcap
	Australian National University Institute for Professional Practice in Heritage and the Arts	International, national, regional, local	Cultural and natural (emphasis on cultural)	Professional development courses (e.g. physical conservation of buildings, cultural landscape, communities and place, disaster planning for heritage sites); or as part of a graduate programme in the Research School of Humanities Liberal Arts programme	Graduate certificate, graduate diploma, professional development training (five or more days)	http://ippha.anu.edu.au/ ; http://rsha.anu.edu.au/liberal-arts
	University of Queensland	International, national, regional, local	Primarily cultural	Museum studies, international heritage protection	Graduate certificate, graduate diploma, professional development training (five days)	http://www.emsah.uq.edu.au/index-new.html?page=37084&pid=114407
	Donald Horne Institute for Cultural Heritage, University of Canberra	International, national, regional, local	Cultural	Cultural heritage conservation (e.g. Ethics and professional practice, issues in cultural heritage management, indigenous society and heritage)	Bachelor's, professional training (short courses)	http://www.canberra.edu.au/centres/donald-horne
	Centre for Cultural Materials Conservation, University of Melbourne	International	Cultural	Cultural materials conservation (coursework and minor theories)	Postgraduate diploma, Master's	http://cultural-conservation.unimelb.edu.au/
	University of Tasmania Faculty of Science, Engineering and Technology	National, regional, local	Predominantly natural	Environment and wilderness studies, Wilderness and protected area management	Bachelor's, Master's and higher degree, professional training courses	http://fcms.its.utas.edu.au/scieng/scieng/
Bhutan	Institute of Language and Cultural Studies, Royal University	National	Cultural	Cultural studies	Degrees	www.rub.edu.bt
Cambodia	Département des Etudes Francophones, Université Royale de Phnom Penh	National	Cultural and natural	Programme de Valorisation du Patrimoine aux Etudiants en Tourisme		www.urpp.org

State Party	Organization	Scope	Type	Programme	Level	Website
China	World Heritage Institute of Training and Research for Asia and Pacific Region	International	Cultural and natural	Advanced Course in World Heritage Conservation and Management (e.g. World Heritage conservation and Operational Guidelines, nomination of sites to the World Heritage List, World Heritage site interpretation and presentation); risk management workshop	Professional training, five-month certificate programme, ten-month diploma programme	http://www.whitrap.org/
	World Heritage Research Centre, College of Urban and Environment Sciences, Peking University	National	Cultural			
	School of Tourism Management, Sun Yat-sen University	National	Cultural and natural	Tourism management	Bachelor's, Master's	http://stm.sysu.edu.cn/index.html
	Institute for Tourism Studies (Macao), Tourism and Hotel School	Regional, local	Cultural and natural	Cultural heritage specialist guide training	Professional training (240 hours) certificates	http://www.ift.edu.mo/EN/Specialist_Guide/Home/Index/271
	Hong Kong University, Faculty of Architecture	International	Cultural	Architectural conservation programme	Master's (one year full-time, or two years part-time)	http://acp.arch.hku.hk/
Fiji	University of the South Pacific	Regional	Natural and natural	Community Conservation, Cultural Heritage 100 level history units (e.g. 2009 Pacific Islands community-based conservation course)	Pacific Island certificate	www.usp.ac.fj
India	Wildlife Institute of India	National	Natural	Wildlife sciences, advanced wildlife management (e.g. capsule courses in wildlife management, interpretation and conservation education, endangered species and zoo management, control of illegal wildlife trade in India)	Master's, postgraduate diploma, short-term courses, certificate courses	http://www.wii.gov.in/ ; wii@wii.gov.in
	National Research Laboratory for Conservation of Cultural Property	International	Cultural	Training in conservation (e.g. care of artefacts, orientation workshop on care and maintenance of museum objects, conservation of audio-visual heritage)	Short courses (one to two weeks), professional training	http://nrlc.gov.in/english/training.htm
	School of Planning and Architecture	International	Cultural	Architecture conservation, landscape architecture	Master's	http://www.spa.ac.in/courses.aspx
Indonesia	Faculty of Landscape Architecture and Environmental Technology (Jakarta), Trisakti University	National	Cultural	Landscape architecture	Master's	http://www.trisakti.ac.id/falt/lansekap/

State Party	Organization	Scope	Type	Programme	Level	Website
Japan	National Research Institutes for Cultural Properties, Tokyo	National	Cultural	Programmes offered by Japan Centre for International Cooperation in Conservation (e.g. conference on international cooperation on conservation, workshop on public systems for protection of cultural property)	Conferences, seminars and workshops	http://www.tobunken.go.jp/index_e.html
	Nara National Research Institute for Cultural Properties	National	Cultural	International academic exchanges relating to cultural property conservation: a variety of international projects including joint research, exchanges of research personnel, technical training, restoration and preservation projects	International academic exchanges	http://www.nabunken.go.jp/english/index.html
	Cultural Heritage Protection Cooperation Office, Asia-Pacific Cultural Centre for UNESCO	National	Cultural	Human Resources Development Programme, international conference, invitation programme for international educational exchange of teachers and professions, regional activity (e.g. survey and restoration of historic monuments, conservation of wooden structures, research, analysis and preservation of archaeological sites)	Conferences, human resources development programme, international academic exchanges	http://www.nara.accu.or.jp/english/index.html
	University of Tsukuba	International, national	Cultural	World Heritage studies (World Heritage Convention, cultural tourism, evaluation and conservation of buildings)	Master's, Ph.D., professional training	http://www.heritage.tsukuba.ac.jp/eng/index.html
	Research Center for Disaster Mitigation of Urban Cultural Heritage, Ritsumeikan University	International, national	Cultural	Training course on disaster risk management of cultural heritage (e.g. theory and methodology of disaster risk management, case studies, team projects)	Professional training	http://www.ritsumei-gcoe.jp/heritagerisknet.dmuch/;dmuchitc@st.ritsumei.ac.jp
Korea, Republic of	Training Centre for Traditional Culture	National	Cultural and natural	Natural heritage site managers' course, on-site training, Buddhist heritage site managers' course, heritage and school education (e.g. cultural properties law, theories on cultural properties management, cultural properties administration, cultural heritage survey methods)	Professional training for natural site managers	www.nuch.ac.kr
Lao People's Democratic Republic	National University of Laos	National	Cultural	B.A. in archaeology and cultural resource management, started in 2009	Bachelor's	www.nuol.edu.la

State Party	Organization	Scope	Type	Programme	Level	Website
Malaysia	Sarawak Forests Department	Local	Natural	Park Guide training, required for Park Guides as stated in the National Parks and Nature Reserves Ordinance 1998	Professional training	
	Faculty of Built Environment, Universiti Teknologi Malaysia	National	Cultural and natural	Tourism planning	Master's	http://fab.utm.my/academic-programmes/postgraduate-programmes/master-of-science-tourism-planning/
	Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA	National	Cultural and natural	Heritage and conservation management (e.g. conservation principles and theory, community-based heritage conservation, economics of heritage and conservation)	Master's (one year full-time, or two years part-time)	http://fspu.uitm.edu.my/v1/
Maldives	Maldives National University Faculty of Education	National	Natural	Environment management	Bachelor's	mnu.gov.mv
Myanmar	Field School of Archaeology, Pyay	National	Cultural	Applied archaeology	Postgraduate diploma (one year)	http://www.myanmar.com/Ministry/culture/
New Zealand	Department of Conservation and Nelson Marlborough Institute of Technology	National	Cultural and natural	One-year certificate in conservation ranger training: field and track maintenance, historic heritage, biodiversity (e.g. animal pest control methods, ongoing track inspection, plant identification, historic heritage basic principles)	One-year certificate	www.nmit.ac.nz
	Department of Conservation	National	Cultural and natural	Short courses in conservation (e.g. natural heritage, field skills, animal ecology, bird identification, principles of historic heritage)	Short courses (online and field-based)	www.doc.govt.nz
	School of Art History, Classics and Religious Studies, Victoria University of Wellington	National	Cultural	Museum and heritage studies	Master's, graduate diplomas, graduate certificates	http://www.victoria.ac.nz/sacr/about/overview-intros/museum-and-heritage-studies
	University of Auckland	National	Cultural	Museums and cultural heritage	Bachelor's, Master's	http://www.arts.auckland.ac.nz/uoa/home/about/subjects-and-courses/museums-and-cultural-heritage/postgraduates-tudy-42
	Lincoln University	National	Natural	Degree and diploma courses	Bachelor's, Master's and higher degree	www.lincoln.ac.nz
	Massey University	National	Cultural and natural	Degree and diploma courses	Bachelor's, Master's and higher degree	www.massey.ac.nz

State Party	Organization	Scope	Type	Programme	Level	Website
Pakistan	Pakistan Institute of Archaeological Training and Research Institute, Lahore	National and Regional	Cultural	Certificates are awarded by the Institute under the auspices of the Department of Archaeology and Museums, Government of Pakistan	Certificates	
	National College of Arts	National	Cultural	Architecture	Bachelor's	http://www.nca.edu.pk/architecture.htm
Papua New Guinea	James Cook University	Regional	Cultural and natural	Bachelor/Master of Social Sciences (environment and heritage)	Bachelor's, Master's	www.jcu.edu.au
Philippines	Graduate School, University of Santo Tomas	National	Cultural	Architecture historic preservation (e.g. heritage and cultural tourism, heritage research and documentation)	Master's	http://graduateschool.ust.edu.ph/
	University of the Philippines	National	Cultural	Archaeological studies programme (e.g. foundations of archaeology, scientific archaeological studies, field methods in archaeology)	Diplomas, Master's, Ph.D.	http://asp.upd.edu.ph/program.html
Sri Lanka	Postgraduate Institute of Archaeology, University of Kelaniya	National	Cultural	Heritage studies, museology, archaeology	Master's, Ph.D., professional training	http://www.pgjar.lk/
	Department of Architecture, University of Moratuwa	National	Cultural	Architectural conservation and heritage management	Bachelor's	http://www.mrt.ac.lk/archi/index.html
Solomon Islands	Solomon Islands College of Higher Education (SICHE)	National	Natural	Environmental studies	Certificates	www.siche.edu.sb;
	University of the South Pacific (USP-Honiara campus)	Regional	Cultural and natural	Environmental studies	Bachelor's	www.usp.ac.fj;
Thailand	Asian Centre for Tourism Planning and Poverty Reduction	National	Cultural and natural	Community-based tourism planning and management		http://www.tu.ac.th/org/socadm/actppr/about.htm
Tonga	Tonga Institute of Education	National	Cultural and natural		Courses	
Turkmenistan	Academy of Arts of Turkmenistan	National	Cultural	Architect, restorer, site manager		
	Turkmen State University	National	Cultural and natural	Archaeology, biology and botany		
	National Institute of sports and tourism	National	Cultural and natural	Tourism development, tourist industry, tourism management		
	Institute of Culture of Turkmenistan	National	Cultural and natural	Museum management, exhibitions, conservation and restoration of artefacts		
	Turkmen Agriculture University	National	Natural	Forestry, pedology		
	Institute of archaeology and ethnography of the Turkmenistan Academy of Sciences	Regional	Cultural	Doctorates of science, archaeology, conservation, history	Ph.D.	

State Party	Organization	Scope	Type	Programme	Level	Website
Viet Nam	Heritage guide training	National	Cultural and natural			http://www.hoi-anworldheritage.org.vn
	Department of Cultural Heritage in coordination with Asia/Pacific Cultural Centre for UNESCO	National	Cultural	Training on researching and documenting wooden structures	Professional training	http://www.hoi-anworldheritage.org.vn
	Asian Academy for Heritage Management	International	Cultural and natural	Field School Programme (In collaboration with various institutions for heritage conservation study in real-life situations), Cultural Heritage Specialist Guide Programme, Museum Capacity Building Programme, Training-of-Trainers Programme	Professional training (short term)	http://www.asianacademy.org/network-activities.html
	United Nations Institute for Training and Research	International	Cultural and natural	World Heritage management	Professional training	http://www.unitar.org/hiroshima/management-and-conservation-of-world-heritage-sites

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* One property was divided into two properties.

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One property was inscribed during the USSR period.
 * 11 cultural properties were inscribed as one property.

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47	China	Temple of Heaven: an Imperial Sacrificial Altar in Beijing																																																				
48	China	Mount Wuyi																																																				
49	China	Dazu Rock Carvings																																																				
50	China	Mount Qincheng and the Dujiangyan Irrigation System																																																				
51	China	Ancient Villages in Southern Anhui – Xidi and Hongcun																																																				
52	China	Longmen Grottoes																																																				
53	China	Imperial Tombs of the Ming and Qing Dynasties																																																				
54	China	Yungang Grottoes																																																				
55	China	Three Parallel Rivers of Yunnan Protected Areas																																																				
56	China	Capital Cities and Tombs of the Ancient Koguryo Kingdom																																																				
57	China	Historic Centre of Macao																																																				
58	China	Yin Xu																																																				
59	China	Sichuan Giant Panda Sanctuaries- Wolong, Mt Siguniang and Jiain Mountains																																																				
60	China	Kaiping Diaolou and Villages																																																				
61	China	South China Karst																																																				
62	China	Fujian Tulou																																																				
63	China	Mount Sanqingshan National Park																																																				
64	China	Mount Wutai																																																				
65	China	Historic Monuments of Dengfeng in “The Centre of Heaven and Earth”																																																				
66	China	China Danxia																																																				
67	China	West Lake Cultural Landscape of Hangzhou																																																				
68	China	Chengjiang Fossil Site																																																				
69	China	Site of Xanadu																																																				
70	India	Ajanta Caves																																																				
71	India	Ellora Caves																																																				
72	India	Agra Fort																																																				
73	India	Taj Mahal																																																				
74	India	Sun Temple, Konârak																																																				
75	India	Group of Monuments at Mahabalipuram																																																				
76	India	Kaziranga National Park																																																				
77	India	Manas Wildlife Sanctuary																																																				
78	India	Keoladeo National Park																																																				
79	India	Churches and Convents of Goa																																																				
80	India	Khajuraho Group of Monuments																																																				
81	India	Group of Monuments at Hampi																																																				
82	India	Fatehpur Sikri																																																				
83	India	Group of Monuments at Pattadakal																																																				
84	India	Elephanta Caves																																																				
85	India	Great Living Chola Temples																																																				
86	India	Sundarbans National Park																																																				
87	India	Nanda Devi and Valley of Flowers National Parks																																																				
88	India	Buddhist Monuments at Sanchi																																																				
89	India	Humayun’s Tomb, Delhi																																																				
90	India	Qutb Minar and its Monuments, Delhi																																																				
91	India	Mountain Railways of India																																																				
92	India	Mahabodhi Temple Complex at Bodh Gaya																																																				
93	India	Rock Shelters of Bhimbetka																																																				

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143	Korea, Republic of	Seokguram Grotto and Bulguksa Temple																																																			
144	Korea, Republic of	Haeinsa Temple Janggyeong Pangeon, the Depositories for the <i>Tripitaka Koreana</i> Woodblocks																																																			
145	Korea, Republic of	Jongmyo Shrine																																																			
146	Korea, Republic of	Changdeokgung Palace Complex																																																			
147	Korea, Republic of	Hwaseong Fortress																																																			
148	Korea, Republic of	Gyeongju Historic Areas																																																			
149	Korea, Republic of	Gochang, Hwasun and Ganghwa Dolmen Sites																																																			
150	Korea, Republic of	Jeju Volcanic Island and Lava Tubes																																																			
151	Korea, Republic of	Royal Tombs of the Joseon Dynasty																																																			
152	Korea, Republic of	Historic Villages of Korea: Hahoe and Yangdong																																																			
153	Kyrgyzstan	Sulaiman-Too Sacred Mountain																																																			
154	Lao PDR	Town of Luang Prabang																																																			
155	Lao PDR	Vat Phou and Associated Ancient Settlements within the Champasak Cultural Landscape																																																			
156	Malaysia	Kinabalu Park																																																			
157	Malaysia	Gunung Mulu National Park																																																			
158	Malaysia	Melaka and George Town, Historic Cities of the Straits of Malacca																																																			
159	Malaysia	Archaeological Heritage of the Lenggong Valley																																																			
160	Marshall Islands	Bikini Atoll Nuclear Test Site																																																			
161	Mongolia & Russian Federation	Uvs Nuur Basin																																																			
162	Mongolia	Orkhon Valley Cultural Landscape																																																			
163	Mongolia	Petroglyphic Complexes of the Mongolian Altai																																																			
164	Nepal	Sagarmatha National Park						*			*	*	*	*	*	*	*							*	*	*																											
165	Nepal	Kathmandu Valley																																																			
166	Nepal	Chitwan National Park																																																			
167	Nepal	Lumbini, the Birthplace of the Lord Buddha																																																			
168	New Zealand	Te Wahipounamu – South West New Zealand																**																																			
169	New Zealand	Tongariro National Park																																																			
170	New Zealand	New Zealand Sub-Antarctic Islands																																																			
171	Palau	Rock Islands Southern Lagoon																																																			
172	Pakistan	Archaeological Ruins at Moenjodaro																																																			
173	Pakistan	Taxila																																																			
174	Pakistan	Buddhist Ruins of Takht-i-Bahi and Neighbouring City Remains at Sahr-i-Bahlol																																																			
175	Pakistan	Historical Monuments of Makli, Thatta																																																			
176	Pakistan	Fort and Shalamar Gardens in Lahore																																																			
177	Pakistan	Rohtas Fort																																																			
178	Papua New Guinea	Kuk Early Agricultural Site																																																			
179	Philippines	Tubbataha Reefs Natural Park																																																			
180	Philippines	Baroque Churches of the Philippines																																																			
181	Philippines	Rice Terraces of the Philippine Cordilleras																																																			
182	Philippines	Historic Town of Vigan																																																			
183	Philippines	Puerto-Princesa Subterranean River National Park																																																			
184	Solomon Islands	East Rennell																																																			
185	Sri Lanka	Sacred City of Anuradhapura																																																			
186	Sri Lanka	Ancient City of Polonnaruwa																																																			
187	Sri Lanka	Ancient City of Sigiriya																																																			
188	Sri Lanka	Sinharaja Forest Reserve																																																			
189	Sri Lanka	Sacred City of Kandy																																																			
190	Sri Lanka	Old Town of Galle and its Fortifications																																																			

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213	Viet Nam																																																				

	Inscription on the World Heritage List
	Inscription on the List of World Heritage in Danger
	State of conservation discussed by the World Heritage Committee
	Under the Reinforced Monitoring Mechanism

Notes on the table:

* State of conservation reported by the State Party, but not discussed by the World Heritage Committee.

** State of conservation of the Fiordland National Park (inscribed in 1986, integrated into Te Wahipounamu – South West New Zealand in 1990) was discussed.

National focal points for Periodic Reporting in Asia and the Pacific

State Party	Name	Title	E-mail	Telephone	Fax	Address
Afghanistan	Abdul Ahad Abassi	Director of the Historical Monuments, Ministry of Information and Culture	ahad.abassi@yahoo.com	+93.20.21.03.287		Mausoleum of King Abdulrahman, Zarnegar Park, Kabul – Afghanistan
	Ghayor Ahmadyar	Ministry of Agriculture	ghayor@gmail.com, ghayor.ahmadyar@mail.gov.af			The Ministry of Agriculture Kabul, Afghanistan
Australia	Samantha Burt	Assistant Director International Heritage Section Department of Sustainability, Environment, Water, Population and Communities	AustraliaWorldHeritage@environment.gov.au	+61.2.6274.1635	+61.2.6274.2095	Department of Sustainability, Environment, Water, Population and Communities GPO Box 787, Canberra ACT 2601, Australia
Bangladesh	Rakhi Roy	Assistant Director, Publication Section, Department of Archaeology	Fingerishi@yahoo.com darchaeologybd@yahoo.com	+880.29.11.84.76	+880.29.11.46.89	Department of Archaeology, F-4/A, Agargaon, Sher-e-Banglanagar, Dhaka, Bangladesh
	Imran Ahmed	Deputy Conservator of Forests, Forest Management Wing, Dhaka	imranforest@live.com	+880.17.11.44.52.47		Bon Bhaban, Agargaon, Dhaka, Bangladesh
Bhutan	Sangay Kinga	Division for Conservation of Heritage Sites	s.kinga@live.com	+975.2.322.694 / 325.118	+975.2.321.285	Division for Conservation of Heritage Sites Department of Culture Ministry of Home and Cultural Affairs PO Box 233, Thimpu, Bhutan
	Sonam Wangchuk Imran Ahmed	Chief of Forestry, Department Forests, Ministry of Agriculture & Forestry	sonamwangchuck@gmail.com	+975.232.5042	+975.233.5806	Wildlife Conservation Division, Department of Forest & Park Services
Brunei Darussalam	Rasidah Hidup	Head of Reserch, Ministry of Culture, Youth and Sports	Rasidah.Hidup@egc.gov.bn	+673.238.2911	+673. 238.0235	Ministry of Culture, Youth and Sports, Jln Kebangsaan, Bandar Seri Begawan, BA 1210, Brunei
	Aminah Haji Majid	Archaeology Officer, Brunei Museum Department	aminah.majid188@gmail.com	+673.114.0053	+673.238.1686	Muzium Maritim Brunei Darussalam, Jln Kota Batu, Bandar Seri Begawan, BD 1510
Cambodia	Kérya Chau Sun	Advisor, APSARA National Authority, Council of Ministers	apsara.ddta@online.com.kh	+855.16.83.15.20	+855.23.99.01.83	APSARA National Authority, No. 187, Rue Pasteur, Phnom Penh, Cambodia
	Peou Hang	Assistant Director-General Head of Department of Water Management	hangpeou@yahoo.com	+855.12.69.86.23	+855.23.99.01.83	APSARA National Authority, No. 187, Rue Pasteur, Phnom Penh, Cambodia

State Party	Name	Title	E-mail	Telephone	Fax	Address
Indonesia	Gatot Ghautama	Head of Sub-Directorate of Protection, Direktorat of Underwater Cultural Heritage, Direktorat of History and Archaeology	letoye2001@yahoo.com	+62.21.572.5531	+62.21.572.5531	Building E, 11th floor, Depdiknas, Jalan Jenderal Sudirman-Senayan Jakarta10270, Indonesia
	Sonny Partono	Director of Protected Area and Protection Forest Management	subdit.kpatb@gmail.com	+62.21.572.0229		Ministry of Forestry Republic of Indonesia Manggala Wanabakti Building, Block VII, 7th floor Jalan Jenderal Gatot Subroto, Jakarta 10270
Iran, Islamic Republic of	Atusa Momeni	Director General for Registration and Preservation and Rehabilitation of Intangible and Natural Heritage	atusa.momeni@yahoo.com' f_mehr273@yahoo.com.au	+98.21.33.95.30.00		Iranian Cultural Heritage, Handicrafts and Tourism Organization (ICHHTO), Emarat-e Ali, Golestan Palace, Paanzdah-e Khordaad Sq, Tehran, Iran (Islamic Republic of)
	Hajar Askari Chavardi	Expert for Registration , Preservation and Rehabilitation of Natural Heritage	askari_hajar@yahoo.com		+98.71.12.27.92.54	
Japan	Maki Sakamoto	Unit Chief, Office for World Cultural Heritage Monuments and Sites Division, Cultural Properties Department Agency for Cultural Affairs-Japan	m-sakamo@bunka.go.jp	+81.3.6734.2877	+81.6734.3822	3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959, Japan
	Kazuhiko Nishi	Cultural Properties Senior Specialist, Agency for Cultural Affairs	kinen@bunka.go.jp	+81.3.6734.2794		3-2-2 Kasumigaseki, Chiyoda-ko Tokyo 100-8959
	Yasuko Miyazawa	Technical Official, Biodiversity Planning Division, Ministry of the Environment, Japan	yasuko_miyazawa@env.go.jp	+81.3.3581.2794		1-2-2 Kasumigaseki Chiyoda-ku Tokyo 100-8975
Kazakhstan	Natalya Turekulova	President of ICOMOS/ Kazakhstan, Invited Specialist of 'Kazrestavratziya' of the Ministry of Culture	icomos@kumbez.kz,, n.turekulova@gmail.com	+7.727.27.30.767	+7.727.27.30.767	77, Furmanov Str., 136, 050004 Almaty, Kazakhstan
	Rystay Kulbaevna Tuleubaeva	Chief Specialist of the Ministry of the Environment Protection of the Republic of Kazakhstan	r_tuleubaeva@moos.kz	+7.317.27.41.253 / 7.40.846	+7.317.27.40.878	Ministries' Building, entrance 14, Astana 010000, Kazakhstan
Kiribati	Manikaoti Timeon	Secretary of Environment and Conservation Division Ministry of Environment, Lands and Agricultural Development	mtimeon650128@gmail.com	+686.28.211	+686.23.234	Ministry of Environment, Lands and Agricultural Development, PO Box 234, Bikenibeu Tarawa, Kiribati


State Party	Name	Title	E-mail	Telephone	Fax	Address
Korea, Democratic People's Republic of	Jong Min Yun	Senior staff for external affairs, National Bureau for Cultural Property Conservation (NBCPC)	NBCPC@co.chesin.com		+850.2.381.4410 / 16	Oesongdong, Central District, Pyongyang, DPRK
	Park Myong Il	Researcher and translator Korean Cultural Preservation Centre	nbcpc@co.chesin.com	+850.2.17111(ext. 381-6146)	+850.2.381.4410	Thongil-dong, Rangnang District, Pyongyang City
Korea, Republic of	Park Jeong-eun	World Heritage Coordinator, International Affairs Division	jeongeun07@korea.kr	+82.42.481.4735	+82.42.481.4759	Cultural Heritage Administration 139 Seonsa-ro, Seo-gu, Daejeon, Republic of Korea 302-701
	Park Hee-ung	Deputy Director of the International Affairs Division Cultural Heritage Administration	hwpark63@korea.kr			139 Seonsa-ro, Seo-gu, Daejeon, Republic of Korea 302-701
Kyrgyzstan	Elnura Korchueva	Secretary General, Commission of Kyrgyz Republic for UNESCO under State Ministry Foreign Affairs	natcomunesco@total.kg	+996.312.62.67.61	+996.312.62.67.61	54, Erkindik Str., Bishkek 720040, Kyrgyzstan
Lao People's Democratic Republic	Thongsasayavongkhamdy	Director General, Department of Heritage Ministry of Information and Culture	thongsas@gmail.com	+856.21.21.2423	+856.21.21.2423	Ministry of Information and Culture Setthathirath Road, PO Box 122, Vientiane, Lao PDR
	Khankham Keneboutta	Director of Management Office for World Heritage Site of Vat Phou and its associated settlements within the cultural landscape of Champassak	khankham55@hotmail.com	+856.20.55.45.85.45	+856.30.95.65.325	Champassak District, Champassak Province Lao PDR
Malaysia	Paulus A/K Meleng		paulusm@sarawaknet.gov.my			Sarawak Forestry Department Wisma Sumber Alam Jalan Stadium, Petra Jaya 93660 Kuching Sarawak, Malaysia
	Nor Azimah Supa'at	Department of National Heritage Ministry of Information, Communications and Culture Malaysia	norazimah@warisan.gov.my	+60.32.167.5100	+60.32.171.6039	10th floor, Chulan Tower Jalan Conlay 50450 Kuala Lumpur, Malaysia
Maldives	Shamiya Latheef	Director General at the Department of Heritage	shamiya@tourism.gov.mv			Department of Heritage 2nd floor, The National Museum Chandani Magu Male, Maldives
	Mohamed Zahir	Director General, Ministry of Housing and Environment	mohamed.zahir@mhe.gov.mv	+960.332.3224	+960.332.2512	Ghazee Building, 1st floor, Ameer Ahmed Magu, Male, Maldives
Marshall Islands	Kino S. Kabua	Secretary, Ministry of Foreign Affairs	kinokabua@gmail.com	+692.625.3181/3012	+692.625.4979	

State Party	Name	Title	E-mail	Telephone	Fax	Address
Micronesia, Federated States of	Rufino Mauricio	Secretary, FSM Department of Education	rufino.mauricio@fsmed.fm	+691.320.2609 / 2647		PO Box PS 87 Palikir, FSM 96941
	Augustine Kohler	Acting Director, Office of National Archives, Culture and Historic Preservation FSM National Historic Preservation Officer	kusgoose@hotmail.com	+691.320.2343 / 6922		PO Box PS 175 Palikir, FSM 96941
Mongolia	Purev Dashdorj	Specialist, External Cooperation Division Ministry of Education, Culture and Science	dashdorj@mecs.gov.mn	+976.51.260.367		Ministry of Education, Culture and Science room 415, 210620a Baga Toiruu 44, Zasgiin gazriin III bair, Sukhbaatar duureg, Ulaanbaatar, Mongolia
	Jamiyan Batsuuri	Director Management Office of Orkhon Valley Cultural Landscape, World Heritage Site	j_batsuuri@yahoo.com	+976.9911.5774		Songino Khairhan District , Horoolol-1, Subdistrict-15, Building-20, Apart-308 , Ulaanbaatar, Mongolia
Myanmar	Daw Nanda Hmun	Rectore, National University of Arts and Culture (Yangon)	nandahmun21683@gmail.com	+95.67.408.382	+95.67.408.384	Department of Historical Research, Ministry of Culture, Building 35, Nay Pyi Taw, Myanmar
	Kyaw Oo Lwin	Deputy Director-General Department of Archaeology, National Museum&Library	kyawoolwin.arch@gmail.com	+95.67.408.217	+95.67.408.039	
Nepal	Devendra Bhattarai	Epigraphy Officer, Department Of Archaeology, Government of Nepal	archaeologicalworld@yahoo.com	+977.1.425.0685 / 86 / 87	+977.1.426.2856	Department of Archaeology World Heritage Conservation Section Ramshahpath, Kathmandu, Nepal.
	Saraswati Sapkota	Assistant Ecologist, Department of National Parks and Wildlife Conservation	info@dnwc.gov.np	+977.1.422.0912 / 0850 / 7926	+977.1.422.7675	Department of National Parks and Wildlife Conservation Babarmahal, Kathmandu, Nepal PO Box 860
New Zealand	Paul Green	Conservator Tongariro-Taupo Conservancy	pgreen@doc.govt.nz	+64.7.386.8607	+64.7.386.7086	
Niue	Moira Enetama Robin Hekau	Manager of Taoga Niue Office	rmhekau.taoganiue@niue.nu	+683.46.56		PO Box 77, Alofi, Niue Island
Pakistan	Fazal Dad Kakar	Director General Department of Archaeology & Museums	fazaldadkakar@hotmail.com			Department of Archaeology and Museums, Government of Pakistan, Block No.2, Plot No.4, G-7 Markaz, Sitara Market, Islamabad
Palau	Dwight G. Alexander	Director/HPO, Bureau of Arts & Culture/Historic Preservation Office Secretary General, Palau National Commission for UNESCO	delbochel@gmail.com; histpres@palaunet.com	+680.488.3594	+680.488.2657	PO Box 1526, Koror, Palau 96940
	Faustina Rehuher Marugg	Minister of Community and Cultural Affairs	imuul@palaunet.com	+680.767.1126./2452	+680.767.3354	PO Box 2060, Koror, Palau 96940

State Party	Name	Title	E-mail	Telephone	Fax	Address
Papua New Guinea	Warilea Iamo	Secretary (Departmental Head) State Party, Department of Environment & Conservation	wiamo@dec.gov.pg	+675.323.1035 / 1045	+675.325.0182	PO Box 6601, BOROKO, Papua New Guinea
Philippines	Ma. Joycelyn Bolhayon-Mananghaya	Commissioner member, Culture Committee of the UNESCO National Commission of the Philippines	jbmananghaya@yahoo.com unescophilippines@yahoo.com.ph	+63.2.834.4818 / 834.3447	+63.2.831.8873	Department of Foreign Affairs Building, 2330 Roxas Boulevard, Pasay City 1300 Philippines
Samoa	Elisaia Talouli	Assistant CEO – Corporate Services Ministry of Natural Resources & Environment	elisaia.talouli@mnre.gov.ws	+685.23.800	+685.23.176	MNRE, Private Bag, Apia, Samoa
	Tuiolo Schuster	Principal Capacity Building Officer, Ministry of Natural Resources & Environment	tuiolo.schuster@mnre.gov.ws	+685.23.800	+685.23.176	Private Bag, Apia, Samoa
	Sina Ah Poe Malietoa	Assistant CEO Culture, Ministry of Education, Sports and Culture	s.ahpoe@mesc.gov.ws	+685.64.600 / 63.201	+685.21.917 / 23.639	Private Bag, Apia, Samoa
Singapore	To be appointed					
Solomon Islands	Joe Horokou	Director for Environment and Conservations, Ministry of Environment, Climate Change, Disaster Management & Meteorology	horokoujoe@gmail.com	+677.28.054		PO Box G21 Honiara, Solomon Islands
	John Tahinao	Director for Culture, Ministry of Culture and Tourism	kalsa.solomons@gmail.com	+677.26.848 / 28.603		PO Box G26 Honiara, Solomon Islands
	Aseri Yalangono	Deputy Secretary-General Solomon Islands National Commission for UNESCO	yalangono@gmail.com	+677.28.807		Ministry of Education & Human resource Development PO Box G28 Honiara, Solomon Islands
Sri Lanka	Senarath Dissanayake	Director General	senarathdi@yahoo.com	+94.11.269.5255	+94.11.269.6250	Department of Archaeology Sir Marcus Fernando Mawatha Colombo 07 Sri Lanka
	B.M.U.D. Basnayake	Secretary, Ministry of Environment	secoffice@menr.lk	+94.11.287.7290	+94.11.287.7292	82, Rajamal Watta Road Battaramulla, Sri Lanka
	Sugath Dharmakeerthi	Director (Natural Resources) Ministry of Environment	sugath2@gmail.com	+94.11.287.7287	+94.11.286.8072	82, Rajamal Watta Road Battaramulla, Sri Lanka
















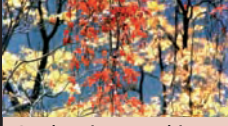







State Party	Name	Title	E-mail	Telephone	Fax	Address
Tajikistan	Rakhmatov Asliddin	Second Secretary Tajikistan National Commission for UNESCO	unesco@mfa.tj	+992.37.221.6001		12, Bokhtar Str., Dushanbe, Tajikistan
	Nurali Saidov	Director of State Agency of Natural Protected Areas of Committee for Environment Protection	nurali_saidov@hotmail.com nsaidov70@yahoo.com	+992.37.222.1467		62, Drujba Narodov Str., 734025, Dushanbe, Tajikistan
Thailand	Chote Trachu	Permanent Secretary, Ministry of Natural Resources and Environment	thailandworldheritage@gmail. com sawanitko@hotmail.com	+66.2.265.6585	+66.2.265.6586	60/1 Soi Phibulwattana 7, RamaVI Road, Sam-saen-nai, Phayathai, Bangkok 10400, Thailand
	Tharapong Srisuchat	Director of Archaeology, Fine Arts Department, Ministry of Culture	fad05@yahoo.com			81/1 Si Ayutthaya Rd. Dusit BKK 10300, Thailand
	Korapin Phayakprakarn	Officer, Network Coordinating and Organisation Development Sub-Division	kphayak@yahoo.com			Office of Natural Resources and Environmental Policy and Planning 60/1 Soi Pibulwattana 7, Rama VI Rd., Phayatai, Bangkok 10400, Thailand
Tonga	Tu'ilokamana Tuita.		tuitaf.tuilokamana@yahoo.com	+676.21.588	+676.25.750	
Turkmenistan	Kuvandyk Poladov	Secretary General, Turkmenistan National Commission for UNESCO	poladov@mail.ru kpoladov@yahoo.com	+93.12.93.08.67	+93.12.93.08.67	15, Bitarap Turkmenistan ave., Ashgabat, 744000, Turkmenistan
Uzbekistan	Abdusafikhon Rakhmanov	Deputy Head of the Principal Department for Preservation and Utilization of Cultural Monuments	merosuz@mail.ru	+998.71.227.09.93 / 227.08.21.	+998.71.227.09.93 / 227.08.21.	Ministry of Culture and Sports 18, Uzgarish Street, Tashkent, 100027, Uzbekistan
	Gulshad Shagiakhmetova	Leading specialist of the State BioControl of the State Committee of the Republic of Uzbekistan for Nature Protection	gosbiocontrol-uz@mail.ru	+998.71.215.79.36 / 215.79.35	+998.71.215.79.36 / 215.79.35	21a, Choshtepa Street, Tashkent, 100149, Uzbekistan
Vanuatu	Ralph Regenvanu	Director, Vanuatu National Cultural Council	ralph.regenvanu@ vanuatuCulture.org	+678.774.5001		
	Brigitte Kalmaly Laboukly	Manager, Vanuatu National Heritage Registry	laboukly@gmail.com	+678.22.129		PO Box 6601, BOROKO, Papua New Guinea
Viet Nam	Nguyen Viet Cuong	Department of Cultural Heritage, Ministry of Culture, Sports and Tourism of Viet Nam	cuongbvhtt@gmail.com	+84.4.3943.4443	+84.4.3943.9929	51 Ngo Quyen, Ha Noi, Vietnam
	Nguyen Quoc Hung	Deputy Director General of Department of Cultural Heritage, Ministry of Culture, Sports and Tourism of Viet Nam	nqhung@dsvh.gov.vn	+84.4.3943.3787	+84.4.3943.9929	51 Ngo Quyen, Ha Noi, Vietnam

World Heritage properties and managers in Asia and the Pacific




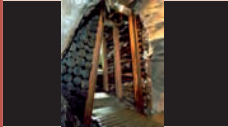



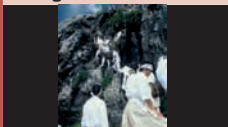






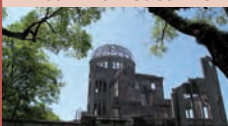
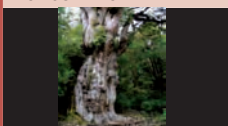
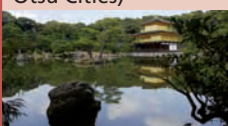


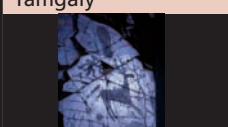

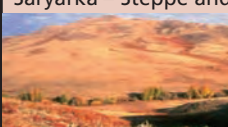
Afghanistan	Cultural Landscape and Archaeological Remains of the Bamiyan Valley		2003	(i)(ii)(iii)(iv)(vi)	Abdul Ahad Abassi ahad.abassi@yahoo.com	
	Minaret and Archaeological Remains of Jam		2002	(ii)(iii)(iv)	Abdul Ahad Abassi ahad.abassi@yahoo.com	
Australia	Australian Convicts Site		1994	(viii)(ix)	Olwen Beazley olwen.beazley@environment.nsw.gov.au	
	Australian Fossil Mammal Sites (Riversleigh/Naracoorte)		1994	(viii)(ix)	Ross Macleod ross.macleod@derm.qld.gov.au	John Schutz john.schutz@sa.gov.au
	Fraser Island		1992	(vii)(viii)(ix)	Ross Macleod Ross.MacLeod@derm.qld.gov.au	
	Gondwana Rainforests of Australia		1986-1994	(viii)(ix)(x)	Bob Conroy Bob.Conroy@environment.nsw.gov.au	
	Great Barrier Reef		1981	(vii)(viii)(ix)(x)	Russell Reichelt russell.reichelt@gbrmpa.gov.au	
	Greater Blue Mountains Area		2000	(ix)(x)	Bob Conroy Bob.Conroy@environment.nsw.gov.au	
	Heard and McDonald Islands		1997	(viii)(ix)	Tony Fleming tony.fleming@aad.gov.au	
	Kakadu National Park		1981-1987-1992	(i)(vi)(vii)(ix)(x)	Peter Cochrane peter.cochrane@environment.gov.au	
	Lord Howe Island Group		1982	(vii)(x)	Bob Conroy Bob.Conroy@environment.nsw.gov.au	
	Macquarie Island		1997	(vii)(viii)	Peter Mooney peter.mooney@parks.tas.gov.au	
Australia	Ningaloo Coast		2011	(vii)(x)	Peter Sharp peter.sharp@dec.wa.gov.au	
	Purnululu National Park		2003	(vii)(viii)	Peter Sharp peter.sharp@dec.wa.gov.au	
	Royal Exhibition Building and Carlton Gardens		2004 (2010)	(ii)	J Patrick Greene jpgreene@museum.vic.gov.au	
	Shark Bay, Western Australia		1991	(vii)(viii)(ix)(x)	Peter Sharp peter.sharp@dec.wa.gov.au	
	Sydney Opera House		2007	(i)	Greg McTaggart gmctaggart@sydneyoperahouse.com	
	Tasmanian Wilderness		1982-1989 (2010)	(iii)(iv)(vi)(vii)(viii)(ix)(x)	Peter Mooney peter.mooney@parks.tas.gov.au	
	Uluru-Kata Tjuta National Park		1987-1994	(v)(vi)(vii)(viii)	Peter Cochrane peter.cochrane@environment.gov.au	
	Wet Tropics of Queensland		1988	(vii)(viii)(ix)(x)	Andrew MacLean andrew.maclean@derm.qld.gov.au	
	Willandra Lakes Region		1981	(iii)(viii)	Bob Conroy Bob.Conroy@environment.nsw.gov.au	
	Bangladesh	Historic Mosque City of Bagerhat		1985	(iv)	Lovely Yasmin yasminlovely70@yahoo.com
Ruins of the Buddhist Vihara at Paharpur			1985	(i)(ii)(vi)	Mahabub-ul-Alam alam.mahabub0@gmail.com	
The Sundarbans			1997	(ix)(x)	Tapan Kumar Dey deytkcfwild@gmail.com	

Cambodia	Angkor 	1992 Kérya Chau Sun cskacacya@gmail.com	(i)(ii)(iii)(iv)	Historic Centre of Macao 	2005 Patrick Choi klchoi@icm.gov.mo	(ii)(iii)(iv)(vi)	
	Temple of Preah Vihear 	2008 Peou Hang Hangpeou@yahoo.com	(i)	Historic Ensemble of the Potala Palace, Lhasa 	1994-2000-2001 Qiong Da 1305182820@qq.com	(i)(iv)(vi)	Nimadanzeng
China	Ancient Building Complex in the Wudang Mountains 	1994 Shu Tao zhm6008@163.com	(i)(ii)(vi)	Historic Monuments of Dengfeng in "The Centre of Heaven and Earth" 	2010 Yin Yindong lixinzhao2011@163.com	(iii)(vi)	
	Ancient City of Ping Yao 	1997 Jia Zhongzhao pywwj@126.com	(ii)(iii)(iv)	Huanglong Scenic and Historic Interest Area 	1992 Tang Siyuan Andejun.618hL@126.com	(vii)	
	Ancient Villages in Southern Anhui – Xidi and Hongcun 	2000 Zheng Xiufa yxychb@126.com	(iii)(iv)(v)	Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang 	1987-2004 Zheng Xinmiao palacemuseum@yahoo.com.cn	(i)(ii)(iii)(iv)	Sun Qiren qirensun@163.com
	Capital Cities and Tombs of the Ancient Koguryo Kingdom 	2004 Cui Ming jjawwj@163.com	(i)(ii)(iii)(iv)(v)	Imperial Tombs of the Ming and Qing Dynasties 	2000-2003-2004 Li Bin bjsslwvk@sina.com	(i)(ii)(iii)(iv)(vi)	Li Wanggui qingdongling@163.com
	Chengjiang Fossil Site 	2012 Li Kang dwq177@126.com	(viii)	Jiuzhaigou Valley Scenic and Historic Interest Area 	1992 Feng Gang 449249464@qq.com	(vii)	
	China Danxia 	2010 Wang Zhiguang hnjst1003@126.com	(vii)(viii)	Kaiping Diaolou and Villages 	2007 Li Jiakai Diaolouban@kaiping.gov.cn	(ii)(iii)(iv)	
	Classical Gardens of Suzhou 	1997-2000 Yi Xueling, Xue Zhijian whcg@yahoo.cn	(i)(ii)(iii)(iv)(v)	Longmen Grottoes 	2000 Ma Chaolong mcl323@126.com	(i)(ii)(iii)	
	Dazu Rock Carvings 	1999 Li Fangyin dazurock@sina.com	(i)(ii)(iii)	Lushan National Park 	1996 Zheng Xiang redaipaomo@21cn.com	(ii)(iii)(iv)(vi)	
	Fujian Tulou 	2008 Tang Zhusong wshasyb@163.com Wang Huayang 67987835@qq.com Lai Xiaodong YDWWJSYG@163.COM	(iii)(iv)(v)	Mausoleum of the First Qin Emperor 	1987 Wu Yongqi Shengtao_ma@163.com	(i)(iii)(iv)(vi)	

China	Mogao Caves		1987 Fan Jinshi cgq312@163.com	(i)(ii)(iii)(iv)(v)(vi)	
	Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area		1996 Li Wenfei scfjyL@sina.com	(iv)(vi)(x)	
	Mount Huangshan		1990 Xu Jiwei chinahsgeopark@163.com	(ii)(vii)(x)	
	Mount Qingcheng and the Dujiangyan Irrigation System		2000 Lu Hongbing 147855392@qq.com	(ii)(iv)(vi)	
	Mount Sanqingshan National Park		2008 Yang Sha'ou Sqszwj2008@126.com	(vii)	
	Mount Taishan		1987 Tan Yegang Tsnijuan@163.com	(i)(ii)(iii)(iv)(v)(vi)(vii)	
	Mount Wutai		2009 Zheng Binxiu hrjwts@126.com	(ii)(iii)(iv)(vi)	
	Mount Wuyi		1999 Chen Xianzhen jczx422@126.com	(iii)(vi)(vii)(x)	
	Mountain Resort and its Outlying Temples, Chengde		1994 Lang Zunshan chdwenwuke@163.com	(ii)(iv)	
	Old Town of Lijiang		1997 He Shiyong Redrose4321@163.com	(ii)(iv)(v)	
	Peking Man Site at Zhoukoudian		1987 Yang Haifeng Liyang_800128@126.com	(iii)(vi)	
	Sichuan Giant Panda Sanctuaries - Wolong, Mt Siguniang and Jiayin Mountains		2006 Zhang Hu Zhanghu318sc@163.com	(x)	
	China	Sites of Xanadu		2012 Gao Hua ysd-sy@163.com	(ii)(iii)(iv)(vi)
		South China Karst		2007 Yuliang Fu gzyl0048@163.com Li Zheng Ping Ynshilin@126.com	(vii)(viii) Huang Jianwei Lbhjwei@163.com Zhang Xiaoning Wlfgc_1995@163.com
Summer Palace, an Imperial Garden in Beijing			1998 Kan Yue Bj_yhy@sohu.com	(i)(ii)(iii)	
Temple and Cemetery of Confucius and the Kong Family Mansion in Qufu			1994 Kong Deping qfwwlyj@sina.com	(i)(iv)(vi)	
Temple of Heaven: an Imperial Sacrificial Altar in Beijing			1998 Yang Xiaodong Wenwuke2005@yahoo.com.cn	(i)(ii)(iii) Duan Chao duanchao0828@163.com	
The Great Wall			1987 Liu Shuguang Changcheng1403@163.com	(i)(ii)(iii)(iv)(vi)	
Three Parallel Rivers of Yunnan Protected Areas			2003 (2010) Liu Wen Sjbl2000@21cn.com	(vii)(viii)(ix)(x)	
West Lake Cultural Landscape of Hangzhou			2011 Wang Shuifa ywj@hz.gov.cn	(ii)(iii)(vi)	
Wulingyuan Scenic and Historic Interest Area			1992 Tian Huayu 846056035@qq.com	(vii)	
Yin Xu			2006 Du Jiuming ayyxbs@126.com	(ii)(iii)(iv)(vi)	
Yungang Grottoes			2001 Zhang Zhuo Yg8123@126.com	(i)(ii)(iii)(iv)	
India		Agra Fort		1983 Superintending Archaeologist circleagr.asi@gmail.com	(iii)

India	Ajanta Caves 	1983 (i)(ii)(iii)(vi) Superintending Archaeologist circleaur.asi@gmail.com	India	Humayun's Tomb, Delhi 	1993 (ii)(iv) Superintending Archaeologist circledel.asi@gmail.com
	Buddhist Monuments at Sanchi 	1989 (i)(ii)(iii)(iv)(vi) Superintending Archaeologist circlebho.asi@gmail.com		Kaziranga National Park 	1985 (ix)(x) Surajit Dutta sduttaguw@yahoo.com
	Champaner-Pavagadh Archaeological Park 	2004 (iii)(iv)(v)(vi) Superintending Archaeologist circlevad.asi@gmail.com		Keoladeo National Park 	1985 (x) Anoop dirkeoladeo@gmail.com
	Chhatrapati Shivaji Terminus (formerly Victoria Terminus) 	2004 (ii)(iv) A. K. Pandey anooppandey64@gmail.com		Khajuraho Group of Monuments 	1986 (i)(iii) Superintending Archaeologist circlebho.asi@gmail.com
	Churches and Convents of Goa 	1986 (ii)(iv)(vi) Superintending Archaeologist circlegoa.asi@gmail.com		Mahabodhi Temple Complex at Bodh Gaya 	2002 (i)(ii)(iii)(iv)(vi) Nangzey Dorjee mahabodhi@hotmail.com
	Elephanta Caves 	1987 (i)(iii) Superintending Archaeologist circlemum.asi@gmail.com		Manas Wildlife Sanctuary 	1985 (vii)(ix)(x) Anindya Swargowary anindyaswargowari@yahoo.in
	Ellora Caves 	1983 (i)(iii)(vi) Superintending Archaeologist circleaur.asi@gmail.com		Mountain Railways of India 	1999-2005-2008 (ii)(iv) P. P. Roy director.dhr@gmail.com
	Fatehpur Sikri 	1986 (ii)(iii)(iv) Superintending Archaeologist circleagr.asi@gmail.com		Nanda Devi and Valley of Flowers National Parks 	1988-2005 (vii)(x) B. K. Gangte director.ndbr@yahoo.com
	Great Living Chola Temples 	1987-2004 (ii)(iii) Superintending Archaeologist circleche.asi@gmail.com		Qutb Minar and its Monuments, Delhi 	1993 (iv) Superintending Archaeologist circledel.asi@gmail.com
	Group of Monuments at Hampi 	1986 (i)(iii)(iv) Superintending Archaeologist circleban.asi@gmail.com		Red Fort Complex 	2007 (ii)(iii)(vi) Superintending Archaeologist circledel.asi@gmail.com
Group of Monuments at Mahabalipuram 	1984 (i)(ii)(iii)(vi) Superintending Archaeologist circleche.asi@gmail.com	Rock Shelters of Bhimbetka 	2003 (iii)(v) Superintending Archaeologist circlebho.asi@gmail.com		
Group of Monuments at Pattadakal 	1987 (iii)(iv) Superintending Archaeologist circledha.asi@gmail.com	Sun Temple, Konârak 	1984 (i)(iii)(vi) Superintending Archaeologist janhwij.asi@gmail.com		

India	Sundarbans National Park 	1987 (ix)(x) Subrat Mukherjee sundarbartiger@gmail.com	Armenian Monastic Ensembles of Iran 	2008 (ii)(iii)(vi) Sheryly Avedian avediansher@yahoo.com
	Taj Mahal 	1983 (i) Superintending Archaeologist circleagr.asi@gmail.com	Bam and its Cultural Landscape 	2004 (2007) (ii)(iii)(iv)(v) Ebrahimi Ebrahimi.researcher@yahoo.com
	The Jantar Mantar, Jaipur 	2010 (iii)(iv) S. P. Singh dirarch_raj@rediffmail.com	Bisotun 	2006 (ii)(iii) Hosein Raei hoseinraie@gmail.com
	Western Ghats 	2012 (ix)(x) S. K. Khanduri igfwl-mef@nic.in	Gonbad-e Qābus 	2012 (i)(ii)(iii)(iv) Jibreil Nokakdeh jnkandeh@yahoo.com
Indonesia	Borobudur Temple Compounds 	1991 (i)(ii)(vi) Marsis Sutopo marsissutopo@yahoo.com	Masjed-e Jāmé of Isfahan 	2012 (ii) Farhad Nazari fnazari54@yahoo.com
	Cultural Landscape of Bali Province: the <i>Subak</i> System as a Manifestation of the <i>Tri Hita Karana</i> Philosophy 	2012 (ii)(iii)(v)(vi) Etty Indriati ettykurtz@gmail.com	Meidan Emam, Esfahan 	1979 (i)(v)(vi) Fariba Saeidi Anaraki Isfahan_hc@yahoo.com
	Komodo National Park 	1991 (vii)(x) Sustyo Iriono tn_komodo@yahoo.com	Pasargadae 	2004 (i)(ii)(iii)(iv) Mohammad Hasan Talebian mh.talebian@gmail.com
	Lorentz National Park 	1999 (viii)(ix)(x) Yunus Rumarar lorentz.btn@gmail.com	Persepolis 	1979 (i)(iii)(vi) Mohammad Hasan Talebian mh.talebian@gmail.com
	Prambanan Temple Compounds 	1991 (i)(iv) Herni Pramastuti bp3diy@yahoo.com	Sheikh Safi al-din Khānegāh and Shrine Ensemble in Ardabil 	2010 (i)(ii)(iv) Nedaie behrooznedie@yahoo.com
	Sangiran Early Man Site 	1996 (iii)(vi) Harry Widiyanto h-widiyanto@indo.net.id	Shushtar Historical Hydraulic System 	2009 (i)(ii)(v) Amin Mahmoudzadeh aminmh77@yahoo.com
	Tropical Rainforest Heritage of Sumatra 	2004 (vii)(ix)(x) Gatot Subiantoro and Munawir whs.trhs@gmail.com	Soltaniyeh 	2005 (ii)(iii)(iv) Alireza Razeghi ar_razeghi@yahoo.com
	Ujung Kulon National Park 	1991 (vii)(x) Agus Priambudi balai_tnuk@yahoo.com	Tabriz Historical Bazaar Complex 	2010 (ii)(iii)(iv) Esmaeili Sangari f_esmaeili_s@yahoo.com

Iran, Islamic Republic of	Takht-e Soleyman 	2003 Farhad Azizi Zalani Farhadazizi79@gmail.com	(i)(ii)(iii)(iv)(vi)	Japan	Itsukushima Shinto Shrine 	1996 Nobuyuki Kimura n-kimura60128@pref.hiroshima.lg.jp	(i)(ii)(iv)(vi)	
	Tchogha Zanbil 	1979 Mozaffar FarhadPour farhadpoorm@yahoo.com	(iii)(iv)		Iwami Ginzan Silver Mine and its Cultural Landscape 	2007 (2010) Daisuke Mano sekaisan@pref.shimane.lg.jp	(ii)(iii)(v)	
	The Persian Garden 	2011 Mohammad Hasan Talebian mh.talebian@gmail.com	(i)(ii)(iii)(iv)(vi)		Ogasawara Islands 	2011 Yoko Oki YOKO_OKI@env.go.jp	(ix)	
Japan	Buddhist Monuments in the Horyu-ji Area 	1993 Tsuneki Koide koide-tsuneki@office.pref.nara.lg.jp	(i)(ii)(iv)(vi)	Japan	Sacred Sites and Pilgrimage Routes in the Kii Mountain Range 	2004 Seitaro Oda oda_s0002@pref.wakayama.lg.jp	(ii)(iii)(iv)(vi)	
	Gusuku Sites and Related Properties of the Kingdom of Ryukyu 	2000 Jun Miyazato miyazaju@pref.okinawa.lg.jp	(ii)(iii)(vi)		Shirakami-Sanchi 	1993 Sota Fukuchi SOTA_FUKUCHI@env.go.jp	(ix)	
	Himeji-jo 	1993 Yasumichi Murakami Yasumichi_Murakami@pref.hyogo.lg.jp	(i)(iv)		Shiretoko 	2005 Mariko Kimura MARIKO_KIMURA@env.go.jp	(ix)(x)	
	Hiraizumi – Temples, Gardens and Archaeological Sites Representing the Buddhist Pure Land 	2011 Yoshihiro Sato yoshi-satou@pref.iwate.jp	(ii)(vi)		Shrines and Temples of Nikko 	1999 Hidetsugu Sekitsuka sekitsukah01@pref.tochigi.lg.jp	(i)(iv)(vi)	
	Hiroshima Peace Memorial (Genbaku Dome) 	1996 Nobuyuki Kimura n-kimura60128@pref.hiroshima.lg.jp	(vi)		Yakushima 	1993 Toru Tsukamoto TORU_TSUKAMOTO@env.go.jp	(vii)(ix)	
	Historic Monuments of Ancient Kyoto (Kyoto, Uji and Otsu Cities) 	1994 Tadashi Mori t-mori71@pref.kyoto.lg.jp	(ii)(iv)		Mausoleum of Khoja Ahmed Yasawi 	2003 Maulen Sadykbekov azret_sultan@mail.ru	(i)(iii)(iv)	
	Historic Monuments of Ancient Nara 	1998 Tsuneki Koide koide-tsuneki@office.pref.nara.lg.jp	(ii)(iii)(iv)(vi)		Kazakhstan	Petroglyphs within the Archaeological Landscape of Tamgaly 	2004 Eleusiz Zhanpeisov tamgaly@mail.ru	(iii)
	Historic Villages of Shirakawa-go and Gokayama 	1995 Ryogo Tachi tachi-ryogo@pref.gifu.lg.jp	(iv)(v)			Saryarka – Steppe and Lakes of Northern Kazakhstan 	2008 Murat Aytzhanov korg@mal.ru	(ix)(x)
							Myrsabek Shanbosynov naurzum@mail.ru	

Kiribati	Phoenix Islands Protected Area 	2010 Tukabu Teroroko tukabut@gmail.com	(vii)(ix)	Korea	Seokguram Grotto and Bulguksa Temple 	1995 Sang Min Kwon kwon3517@korea.kr	(i)(iv)		
	Korea, DPR	Complex of Koguryo Tombs 	2004 Beatrice Kaldun b.kaldun@unesco.org		(i)(ii)(iii)(iv)	Kyrgyzstan	Sulaiman-Too Sacred Mountain 	2009 Nurumbetov Baltagul Attokurovich sulaimanto2010@yandex.ru	(iii)(vi)
Korea, Republic of		Changdeokkung Palace Complex 	1997 Sook Yoon yoongain11@hanmail.net	(ii)(iii)(iv)	Lao PDR		Town of Luang Prabang 	1995 Bounnhang Phongphichit bounnhang_ph@hotmail.com	(ii)(iv)(v)
	Gochang, Hwasun and Ganghwa Dolmen Sites 	2000 Jae Hoon Jeong aop33@korea.kr Seung Hui Youn for141@korea.kr	(iii)	Vat Phou and Associated Ancient Settlements within the Champasak Cultural Landscape 		2001 Khankham Kenbouta khankham55@hotmail.com	(iii)(iv)(vi)		
	Gyeongju Historic Areas 	2000 Sang Min Kwon kwon3517@korea.kr	(ii)(iii)	Malaysia		Gunung Mulu National Park 	2000 Engkamat Lading engkamat@sarawak.gov.my	(vii)(viii)(ix)(x)	
	Haeinsa Temple Janggyeong Panjeon, the Depositories for the Tripitaka Koreana Woodblocks 	1995 Eun Sil Hwang history117@korea.kr	(iv)(vi)			Archaeological Heritage of the Lenggong Valley 	2012 Zuraina Majid zuraina@heritage.gov.my	(iii)(iv)	
	Historic Villages of Korea: Hahoe and Yangdong 	2010 Mun Gyu Ryu kohistoria@korea.kr	(iii)(iv)	Malaysia		Kinabalu Park 	2000 Ludin Apin Ludi.Apin@sabah.gov.my	(ix)(x)	
	Hwaseong Fortress 	1997 Haun Su Kim 3335an@korea.kr	(ii)(iii)			Melaka and George Town, Historic Cities of the Straits of Malacca 	2008 Erne Bt Hamsah erne_arch@yahoo.com.sg	(ii)(iii)(iv)	
	Korea, Republic of	Jeju Volcanic Island and Lava Tubes 	2007 Eun Sil Yii unikes75@jeju.go.kr	(vii)(viii)		Marshall I.	Bikini Atoll Nuclear Test Site 	2010 July Note bikiniatolldivers@gmail.com	(iv)(vi)
		Jongmyo Shrine 	1995 Young-Min Ahn zero2022@korea.kr	(iv)			Mongolia	Orkhon Valley Cultural Landscape 	2004 Jamiyan Batsuuri J_batsuuri@yahoo.com
	Korea, Republic of	Royal Tombs of the Joseon Dynasty 	2009 Jae Hun Kang tf773@korea.kr	(iii)(iv)(vi)		Mongolia		Petroglyphic Complexes of the Mongolian Altai 	2011 Ayatkhan Atai

Mongolia	Uvs Nuur Basin*		2003 (ix)(x) Munkhuu Ankhbayar m.ankhaa88@yahoo.com	Pakistan	Rohtas Fort		1997 (ii)(iv) Saleem-ul-Haq Saleemul_haq@yahoo.com	
	Nepal	Kathmandu Valley			1979 (2006) (iii)(iv)(vi) Bhesh Narayan Dahal bheshdahal@hotmail.com	Taxila		1980 (iii)(vi) Muhammad Bahadar mbahadar@hotmail.com
Nepal	Lumbini, the Birthplace of the Lord Buddha		1997 (iii)(vi) Acharya Karma Sangbo Sherpa lumbinidt@info.com.np	Palau	Rock Islands Southern Lagoon		2012 (iii)(v)(vii)(ix)(x) Jose Ise Deborah Toribiong-Fambro coastalngnt@kororstate.org debbie.scy@kororstate.org	
	Chitwan National Park		1984 (vii)(ix)(x) Narendra Man Babu Pradhan npradhan@dnpwc.gov.np		Papua N.G.	Kuk Early Agricultural Site		2008 (iii)(iv) Vagi Renagi Genorupa vgenorupa@dec.gov.pg
	Sagarmatha National Park		1979 (vii) Bed Kumar Dhakal bedkumar@gmail.com			Baroque Churches of the Philippines		2003 (ii)(iv) Malou Jacob Pedro Galende Amadeo Escañan Virgilio Cabacang Emyjohn Domingo info@ncca.gov.ph
New Zealand	New Zealand Sub-Antarctic Islands		1998 (ix)(x) Stuart Genery sgenery@doc.govt.nz	Philippines	Historic Town of Vigan		1999 (ii)(iv) Eva Marie S. Medina admin@vigancity.gov.ph	
	Te Wahipounamu – South West New Zealand		1990 (vii)(viii)(ix)(x) Campbell Robertson crobertson@doc.govt.nz		Puerto-Princesa Subterranean River National Park		1999 (vii)(x) James Albert A. Mendoza jamas@puerto-undergroundriver.com	
	Tongariro National Park		1990-1993 (vi)(vii)(viii) Nicola Etheridge netheridge@doc.govt.nz		Rice Terraces of the Philippine Cordilleras		1995 (iii)(iv)(v) Renato Patacsil natopatacsil@yahoo.com	
Pakistan	Archaeological Ruins at Moenjodaro		1980 (ii)(iii) Gulam Murtaza Khoso directormprct@gmail.com	Solomon I.	Tubbataha Reefs Natural Park		1993-2009 (vii)(ix)(x) Angelique Songco tmo@tubbatahareef.org	
	Buddhist Ruins of Takht-i-Bahi and Neighbouring City Remains at Sahr-i-Bahlol		1980 (iv) Arshad Mughal gold_mughal@yahoo.com		East Rennell		1998 (ix) Greg Taieha gtaieha3@gmail.com	
	Fort and Shalamar Gardens in Lahore		1981 (i)(ii)(iii) Director General mafzalkh2002@yahoo.com		Ancient City of Polonnaruwa		1982 (i)(iii)(vi) Director General & Private Party dg@archaeology.gov.lk	
	Historical Monuments at Makli, Thatta		1981 (iii) Fateh Ali Sheikh fatahshaikh1979@gmail.com		Ancient City of Sigiriya		1982 (ii)(iii)(iv) Director General & Private Party dg@archaeology.gov.lk	

* Transboundary with the Russian Federation

Sri Lanka	 <p>Central Highlands of Sri Lanka</p> <p>2010 (ix)(x) H.M.P. Hitisekara U. Wickramasinghe conservatorgeneral@yahoo.com Director@dwc.gov.lk</p>	 <p>Thungyai-Huai Kha Khaeng Wildlife Sanctuaries</p> <p>1991 (vii)(ix)(x) Damrong Phidet hkkyt@dnf.go.th</p>
	 <p>Golden Temple of Dambulla</p> <p>1991 (i)(vi) Inamaluwe Sumangala Thero dg@rangiri.com</p>	 <p>Kunya-Urgench</p> <p>2005 (ii)(iii) Meretgul Gurjjeva monument@online.tm</p>
	 <p>Old Town of Galle and its Fortifications</p> <p>1988 (iv) Director General & Private Party dg@archaeology.gov.lk</p>	 <p>Parthian Fortresses of Nisa</p> <p>2007 (ii)(iii) Kurban Ballyev monument@online.tm</p>
	 <p>Sacred City of Anuradhapura</p> <p>1982 (ii)(iii)(vi) Director General & Private Party dg@archaeology.gov.lk</p>	 <p>State Historical and Cultural Park "Ancient Merv"</p> <p>1999 (ii)(iii) Redjep Jepbarov monument@online.tm</p>
	 <p>Sacred City of Kandy</p> <p>1988 (iv)(vi) Director General & Private Party dg@archaeology.gov.lk</p>	 <p>Historic Centre of Bukhara</p> <p>1993 (ii)(iv)(vi) Babaev Tuygun Mukhiddinovich s.babaev@ya.ru</p>
	 <p>Sinharaja Forest Reserve</p> <p>1988 (ix)(x) H.M.P. Hitisekara conservatorgeneral@yahoo.com</p>	 <p>Historic Centre of Shakhrysbz</p> <p>2000 (iii)(iv) Ravshan Qodirov keshoqsaroy.uz@inbox.uz</p>
Tajikistan	 <p>Proto-urban site of Sarazm</p> <p>2010 (ii)(iii) Abdurauf Razzokov rauf_razzokov@mail.ru</p>	 <p>Itchan Kala</p> <p>1990 (iii)(iv)(v) Sultonnazir Bobojonov xivaobida@mail.ru</p>
Thailand	 <p>Ban Chiang Archaeological Site</p> <p>1992 (iii) Somsuda Leyavanija archaeo.fad@gmail.com</p>	 <p>Samarkand – Crossroad of Cultures</p> <p>2001 (i)(ii)(iv) Naberaeva Maysara Ahmedjanovna sam_madaniymeros@mail.ru</p>
	 <p>Dong Phayayen-Khao Yai Forest Complex</p> <p>2005 (x) Damrong Phidet dpky@dnf.go.th</p>	 <p>Chief Roi Mata's Domain</p> <p>2008 (iii)(v)(vi) Richard Matanik roimatadomain@gmail.com</p>
	 <p>Historic City of Ayutthaya</p> <p>1991 (iii) Somsuda Leyavanija archaeo.fad@gmail.com</p>	 <p>Central Sector of the Imperial Citadel of Thang Long – Hanoi</p> <p>2010 (ii)(iii)(vi) Nguyen Van Son huhuhoandao@yahoo.com</p>
	 <p>Historic Town of Sukhothai and Associated Historic Towns</p> <p>1991 (i)(iii) Somsuda Leyavanija archaeo.fad@gmail.com</p>	 <p>Citadel of the Ho Dynasty</p> <p>2011 (ii)(iv) Do Quang Trong trongdsthegioi@yahoo.com.vn</p>
		Viet Nam

Viet Nam	Complex of Huế Monuments	1993	(iv)
		Phung Phu huedisan@gmail.com	
	Ha Long Bay	1994-2000	(vii)(viii)
		Ngo Van Hung btsthalong@hn.vnn.vn	
	Hoi An Ancient Town	1999	(ii)(v)
	Nguyen Chi Trung chitrunghoian@gmail.com		
My Son Sanctuary	1999	(ii)(iii)	
	Nguyen Cong Huong tanlap75@yahoo.com.vn		
Phong Nha-Ke Bang National Park	2003	(viii)	
	Luu Minh Thanh thanh_luuminh@ yahoo.com		

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