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**UNITED NATIONS EDUCATIONAL,
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**ORGANISATION DES NATIONS UNIES
POUR L'EDUCATION, LA SCIENCE ET LA CULTURE**

**CONVENTION CONCERNING THE PROTECTION OF THE WORLD
CULTURAL AND NATURAL HERITAGE**

**CONVENTION CONCERNANT LA PROTECTION DU PATRIMOINE
MONDIAL, CULTUREL ET NATUREL**

WORLD HERITAGE COMMITTEE / COMITE DU PATRIMOINE MONDIAL

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Item 7 of the Provisional Agenda: State of conservation of properties inscribed on the World Heritage List and/or on the List of World Heritage in Danger

Point 7 de l'Ordre du jour provisoire: Etat de conservation de biens inscrits sur la Liste du patrimoine mondial et/ou sur la Liste du patrimoine mondial en péril

MISSION REPORT / RAPPORT DE MISSION

**Kathmandu Valley (Nepal) (C 121bis)
Vallée de Kathmandu (Népal) (C 121bis)**

27 October – 2 November 2015

This mission report should be read in conjunction with Document:
Ce rapport de mission doit être lu conjointement avec le document suivant:

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REPORT ON THE JOINT WORLD HERITAGE CENTRE/ICOMOS/ICCROM REACTIVE MONITORING MISSION TO KATHMANDU VALLEY (NEPAL, C 121Bis)

From 27 October to 2 November 2015



Feng Jing, UNESCO World Heritage Centre
Catherine Forbes, ICOMOS
Gamini Wijesuriya, ICCROM

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The mission greatly appreciated the information and cooperation provided by the municipal officials of Kathmandu, Bhaktapur, and Lalitpur, particularly from Hanuman Dhoka Durbar Square Area Conservation Office. These local stakeholders, representing the custodians of the World Heritage property, were most helpful as they explained to the Mission the Municipality's early response works and ongoing efforts to address the emergency. Through their briefings, the Mission obtained an enhanced understanding of the emergency responses to the earthquake and mitigation measures to salvage and protect the cultural heritage of the Kathmandu Valley World Heritage property from further damage.

It is not possible to name the numerous officials, experts, consultants and other stakeholders who supported this mission. The Mission acknowledges the deep interest of the different stakeholders such as the representatives from universities, NGOs and local community members who provided invaluable information on a voluntary basis, and so readily shared their knowledge and experiences.

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EXECUTIVE SUMMARY

The World Heritage property of the Kathmandu Valley has suffered greatly from the earthquakes of April-May 2015. The damage has impacted important attributes, authenticity and integrity of the property, placing the Outstanding Universal Value (OUV) of the property at risk. The extent of loss varies from one monument zone to another. However, despite the losses, it should be noted that the majority of monuments remain standing. Thus the monument ensembles, both urban and religious, continue to provide a testament to the OUV for which the property was inscribed on the World Heritage List. Examples of the various building typologies (including tiered temples, domed stupas, palaces, sattals and vernacular urban architecture), urban structures (including durbar squares, public spaces and street patterns), and high levels of craftsmanship in brick, stone, timber and bronze survive in the many remaining structures. The coexistence of Hinduism, Buddhism and Tantrism also remains clearly evident.

Although many temples suffered severe damage or collapsed, with the exception of the large domed temple on the hill at Pashupati, numerous examples of the various architectural types still remain standing. The taller tiered temples appear to have suffered the greatest damage, although nearly all types of buildings have been affected to some extent. The palace ensemble in Hanuman Dhoka suffered considerable damage, but overall, it remains standing at this stage. Some towers and walls have collapsed and others will require substantial rebuilding to stabilise them. The palaces at Patan and Bhaktapur have suffered far less damage. Where structures have collapsed, many of the carved and ornamental elements that manifest the symbolic and artistic values for which the places are inscribed on the World Heritage List have been salvaged. They are currently being inventoried and stored and may be reinstalled when the buildings are rebuilt.

The integrity of the three urban precincts has been impacted through the loss of some monuments, with Hanuman Dhoka Durbar Square Monument Zone being the most affected, as several of its large temples have been destroyed. However, the significant structure and layout of the urban precincts, including their durbar squares, remain intact. The immense stepped masonry bases of the collapsed structures continue to stand as substantial place markers within the squares.

Among the four religious ensembles, the principal temples and stupas generally remain standing. The integrity of the groups has been impacted as follows:

- Changu Narayan was affected by the collapse of some smaller temples and its surrounding sattals;
- Pashupati was affected by damage to some of its outer temples;
- Swayambhu also suffered damage to smaller temples and lost many of its surrounding buildings, although some of these were more recent additions to the hilltop and were encroaching on the historic setting of the stupa;
- The top portion (above the dome) of the Boudhanath stupa was severely affected.

Despite the damage, the daily rituals and festivals associated with the monuments zones have continued. Thus, the social and spiritual values associated with each of the zones have been maintained.

Many traditional houses and other vernacular buildings located within the property have suffered damage from the earthquakes and are highly vulnerable. Their condition, the implementation of new building codes and economic pressures place them at risk of replacement with modern structures, which would impact the integrity and authenticity of the property. The traditional buildings located within the buffer zones to the monument zones, which contribute to the significant settings of the latter, are similarly affected.

In the Mission's view, this does not mean that some or most attributes cannot be recovered. It is acknowledged that earthquakes are a regular occurrence in Nepal, occurring on average every 80 to 100 years

in the Kathmandu Valley. Historically, many of the damaged structures have been rebuilt after each earthquake, replacing damaged elements with new ones. This practice of ‘cyclical renewal’ of the structures has sustained the heritage of the Kathmandu Valley over the centuries. Even though some structures have not been rebuilt after previous earthquakes and others have been replaced with new structures, the continuity and significance of the property has generally been maintained.

A new process of renewal could help to restore some of the attributes affected by the earthquake, thereby reducing the impact on the OUV of the property. What is needed, however, is a critical analysis of precisely what has been damaged and could be recovered and what has been lost and will need to be replaced by new structures, which in the case of dwellings might or might not reflect what existed before.

On the basis of the information available so far, the process of reconstruction for the religious monuments could be undertaken in a similar way to previous renewal projects. But for this process to be successful, it will be essential to ensure that there are adequately trained traditional craftspeople to sustain the high levels of traditional craftsmanship that are required to create and maintain the structures of the Kathmandu Valley. As the number of craftsmen with the required knowledge for reconstruction is currently low, the process of reconstruction will need to be linked with capacity-building measures to grow the artisans’ community and to enable the revival and transmission to another generation of this knowledge which contributes to the OUV of the property.

A Recovery Master Plan should set out the current situation in each monument zone and buffer zone and define the scope of the plan in terms of what attributes can be recovered, what needs to be rebuilt in a different form, and how the work will be phased and undertaken. A carefully designed recovery scheme could help to restore the attributes affected by the earthquake, thereby reducing the impacts on integrity and authenticity—but this will be an immense task.

The mission is aware that, while a proposal was made by the Advisory Bodies and the Centre at the 39th Session of the Committee to place the property in the List of World Heritage in Danger, this was not accepted at the time. The mission continues to support the Advisory Bodies and the Centre and is of the view that the property can be placed on danger list in accordance with Paragraph 179 of the *Operational Guidelines for the Implementation of the World Heritage Convention*. Taking into consideration the impacts of the earthquake disaster on the OUV of the Kathmandu Valley, including the impact on its authenticity and integrity, the mission further considers that the property might potentially face serious deterioration of its architectural and town-planning coherence, the deterioration of urban or rural spaces, the serious loss of historical authenticity, and an important loss of cultural significance. The mission is of the view that inscribing the property on the List of World Heritage in Danger and implementing comprehensive mitigation measures in collaboration with key national and international stakeholders holds the best prospect of overcoming the current threats.

As the mission was carried out only 4 months after the 39th session, the Committee may also wish to reconsider whether to inscribe the property on the List in Danger at its 41st session in 2017, after a further mission has helped define corrective measures and ascertain the progress accomplished by the State Party.

The Mission Team makes the following recommendations for additional action to be taken by the State Party:

RECOMMENDATION 1: ANALYSIS

- As a matter of urgency, prepare, update and elaborate lists of attributes for each of the seven monument zones, using the Statement of Outstanding Universal Value adopted by the Committee as a basis to establish priorities and guide decisions in relation to reconstruction and recovery of the World Heritage property. These lists should also include attributes that carry other national and local values.

- For each monument zone and as part of detailed condition assessments, continue with the analysis of which attributes have been damaged but could be recovered and which have been lost and will need to be replaced by new structures. In the case of dwellings, this may or may not reflect pre-existing structures.
- Based on this information, create a clearly laid-out and accessible database for the information gathered on each site still. To support restoration planning, baseline information should include location (GIS), a brief description of any damage, photographs, historical information and an assessment of the needs.
- Identify the degree of damage or loss of OUV within each monument zone and identify what can and cannot be restored whilst still maintaining OUV.

RECOMMENDATION 2: EMERGENCY RESPONSE WORK

- Continue the inventory process and the collection of comprehensive information on the damaged structures and objects/ building components recovered.
- Stabilize the remaining structures and ensure protection of people and visitors at sites open to the public.
- Provide security and weather protection to materials collected and stored outside.
- Where necessary, rearrange or reorganize traffic to ensure the safety of damaged monuments.
- Undertake further detailed mapping and recording of damaged structures.
- Prepare detailed condition assessment reports for each structure, including detailed assessment of the site's condition, the potential causes for the failure of building elements, and an evaluation of the effectiveness of previous conservation works.

RECOMMENDATION 3: RECOVERY MASTER PLAN

- Based on the work already carried out, complete the development of a Recovery Master Plan (RMP) for the World Heritage property as a whole, as well as for each of the seven monument zones. The RMPs should have a clear and detailed vision of what is to be achieved: whether and how monuments and vernacular buildings are to be restored or rebuilt; on which basis this work is justified based on what has survived; any available documentary evidence; ...
- Set an overall approach to recovery that reflects the specific attributes of OUV of the World Heritage property, as well as local and national values, including the importance of the monuments to daily life and the requirements for rituals and customary practices. This should lead to the development of specific objectives and actions.
- Based on the work already carried out, develop relevant Action Plans that establish clear priorities, criteria for consolidation, stabilization, restoration and/or reconstruction, and include realistic timeframes.
- In order to ensure the authenticity of reconstructed monuments, and given that an adequate community of traditional craftspeople will be needed, provide architects and engineers with extensive guidance for the assessment and documentation of the damage and for the works to be undertaken, in order to ensure that appropriate methodologies and materials are used and that the integrity and authenticity of the sites is guaranteed.
- Link the RMPs to larger national disaster management plans and to the area development plans and strategies.
- Include in the RMPs opportunities for social development and engagement with communities and other stakeholders within both the World Heritage Property and its buffer zones.
- Investigate potential risks from further earthquakes and other hazards (both natural and human), and prepare and implement appropriate disaster risk management plans (DRMP) for the monument zones and individual sites.

RECOMMENDATION 4: CAPACITY DEVELOPMENT

- With the assistance of the small number of highly skilled master craftspeople, develop a capacity-building programme to train more craftspeople, using the fieldwork opportunities provided during the restoration of the structures. This should include a scheme to consider long-term sustainability through the provision of reasonable remuneration and long-term employment.
- Develop, as a matter of urgency, an Action Plan to provide basic heritage training for newly-recruited professional staff (particularly architects and engineers). This training may be developed in collaboration with an international team of peers and should cover:
 - knowledge of traditional design and construction technologies used in the buildings of the world heritage property of the Kathmandu Valley;
 - heritage conservation principles and how they are applied to the restoration of the World Heritage property;
 - appropriate research methods, documentation, analysis and the conservation of surviving artefacts.

RECOMMENDATION 5: SUSTAINABLE SUPPLY OF MATERIALS

- Develop an Action Plan to secure a steady supply of suitable materials for rebuilding, including timber (which is known to be in very short supply and difficult to get), and bricks of suitable quality.
- Consult the national authorities regarding the establishment of a long-term supply of appropriate construction timber for the ongoing conservation and future repairs to monuments. Additionally, investigate planning opportunities to address such materials shortages resulting from similar earthquake or other disaster events in the future.
 - Investigate opportunities for the establishment of a suitable forestry program that would provide the types and quality of timber required for future repair and reconstruction work within the World Heritage property.
 - Investigate the possible establishment of brick factories that would produce the quality and type of bricks required for conservation and reconstruction works on World Heritage property.

RECOMMENDATION 6: COORDINATION

- Coordinate, consult and collaborate with national and local authorities, Site Managers, relevant community groups and other stakeholders to seek recovery, reconstruction and redevelopment solutions that respect and prioritise the maintenance and recovery of the OUV of the World Heritage property. This process must be based on a clear understanding by all parties of the following:
 - What constitutes the OUV for which the World Heritage property of the Kathmandu Valley was inscribed;
 - What are the specific attributes (tangible and intangible) within each of the seven monument zones that contribute to the OUV, including:
 - monuments,
 - public spaces,
 - collections,
 - cultural practices,
 - meanings,
 - cultural and spiritual associations and
 - the setting (urban and/or natural) of each element.

All of these elements make an important contribution to maintaining the OUV of the World Heritage property as a whole.

- Appropriately address Infrastructure and town planning issues within the property and buffer zones that may have an impact on the OUV.

- Coordinate with local authorities to develop and implement a community awareness programme, which shall provide relevant information regarding traditional seismic construction, reasons for failure, and the importance of routine maintenance in keeping buildings in good condition. This may require coordination with National Steering Committee to address building code issues and failure of modern construction technologies as well.
- Develop a support program (information and funding) for private owners of heritage properties located within the property and buffer zones to promote rehabilitation of traditional buildings in these zones.
- Engage with local community groups, including traditional *Guthis*, to facilitate appropriate use, management and maintenance of the sites in accordance with maintaining the OUV of the property.
- Develop a centralised and easily accessible database of information gathered by all those undertaking assessment of the monuments and repair works to enable knowledge sharing and to ensure that duplication of tasks is minimized.

RECOMMENDATION 7: MANAGEMENT STRUCTURES

- Strengthen the overall coordination mechanism between all institutions and management authorities and identify the roles of respective agencies.
- Develop a strategy for managing foreign input to ensure that it responds to the needs and priorities identified by Department of Archaeology (DoA) . A process of review needs to be put in place to ensure the works carried out, expertise and methodologies used, and resourcing (funds, materials, manpower) is compatible with DoA's Recovery Master Plan and Conservation Principles, Guidelines and Procedures.
- Establish Steering Committees as foreseen by the authorities to facilitate the coordination of work on each site.
- Revitalise all forms of traditional knowledge and management systems (e.g. *Guthi*) as appropriate and applicable to help the recovery process.

RECOMMENDATION 8: CONSERVATION POLICIES/GUIDELINES

- Based on the work already carried out (including the draft Conservation Guidelines), finalize the overall conservation principles, approaches, policies, guidelines and procedures to help recover the monuments and sites, with an emphasis on sustaining or recovering the OUV of the property, including integrity and authenticity. When finalizing this document, use the existing experience within the country and work with an international team of peers, as agreed by the DoA.

RECOMMENDATION 9: PLANNING FOR ONGOING CARE AND DEVELOPMENT

- Review the Integrated Management Plan (IMP) for the World Heritage property, taking into consideration the damage caused by the earthquakes, their impact on the OUV of the World Heritage property and the need for recovery.
- Prepare routine maintenance plans, which clearly set out tasks (and identify the purpose of each task), responsibilities, methods to be employed and periodic timeframes for the various buildings and sites. Routine maintenance procedures must then be implemented to minimize further deterioration and to maintain the sites in good condition.
- Regarding the Recovery Master Plan (RMP) mentioned above, for the property and for each of the monument zones, including their significant settings (provided by the buffer zones), provide a forward-looking framework for the management of ongoing conservation and development within the monument zones and their buffer zones. The RMPs should clearly elaborate the attributes carrying the OUV of each of the monument zones, the extent of loss (physical loss and loss of values) and potential for recovery (or absence thereof), and provide an overview of policies and guidelines

for future conservation, reconstruction, adaptation and development within the monument zones and their buffer zones. They should clearly identify where development may and may not occur, its type, scale, form, materials and fit within the urban or natural context. The RMPs should be prepared relatively quickly so as not to hold up housing and other essential development projects within the property.

- Specific conservation policies should be developed separately for each of the monuments and urban areas within the monument zones as required.
- Systems to control development should be created and implemented by the DoA and the local authorities to protect the monument zones' significant settings. These control systems should include allowed materials, heights, forms and types of development, and should also apply to the buffer zones.

RECOMMENDATION 10: SOCIAL REVITALISATION PROGRAMME.

- Develop an information programme for those who need to rebuild or repair their properties on the importance of historic buildings, their significant characteristics, traditional seismic design and the importance of routine maintenance in keeping buildings in good condition.
- Encourage and negotiate funds from donors, not only for major monuments, but also for the revitalisation of housing and community life, and to encourage the people (residents and local businesses) to engage in the recovery process.
- Investigate opportunities for providing financial and technical assistance to homeowners who need to rehabilitate their houses located within the monument zones and buffer zones to enable them to rebuild using traditional materials and methods.

RECOMMENDATION 11: ENGAGEMENT OF TOURISTS

- Develop a visitor management strategy, which includes interpretation opportunities that highlight the history and value of traditional buildings (including their seismic design).
- Enable tourists to view the reconstruction process, to watch craftsmen working, and to learn from the archaeological investigations carried out. This will require good tourist management through the provision of safe access to sites and appropriate safety measures for the sites and those working on them.

RECOMMENDATION 12: IN RELATION TO PARAGRAPH 179 OF THE OPERATIONAL GUIDELINES

- The mission is aware that, while a proposal was made by the Advisory Bodies and the World Heritage Centre at the 39th Session of the World Heritage Committee (Bonn, July 2015) to place the property on the List of World Heritage in Danger, this was not accepted at the time. The Mission continues to support the position of the Advisory Bodies and the World Heritage Centre and is of the view that the property can be placed on List of World Heritage in Danger in accordance with Paragraph 179 of the *Operational Guidelines for the Implementation of the World Heritage Convention*. Taking into consideration the impacts of the earthquake disaster on the OUV of the Kathmandu Valley, including its impact on the property's authenticity and integrity, the mission further considers that the property might potentially face serious deterioration of its architectural and town-planning coherence, of urban or rural spaces; the serious loss of historical authenticity; and an important loss of cultural significance. The mission is of the view that inscribing the property on the List of World Heritage in Danger and implementing comprehensive mitigation measures in collaboration with key national and international stakeholders holds the best prospect for overcoming the current threats.
- As the Mission was concluded only four months after the 39th session, and in recognition of the efforts being made by the Government of Nepal, the Mission is of the view that more time is required to demonstrate the State Party's capacity to mitigate the threats to the property caused by the

natural disaster. If these threats persist, they clearly represent both ascertained and potential danger to the property's OUV, in line Paragraph 179 of the Operational Guidelines. In this context, the Committee may also wish to reconsider whether to inscribe the property on the List of World Heritage in Danger at its 41st session in 2017, after a further mission has helped to define corrective measures and to ascertain the progress accomplished by the State Party.

RECOMMENDATION 13: INTERNATIONAL TECHNICAL SUPPORT

- Technical training and support should be provided by ICOMOS, WHC and ICRROM to assist the DoA in undertaking the enormous task of recovery of the World Heritage property. This support may include the following:
 - Development and provision of a cultural heritage training programme for professionals (especially engineers and architects) involved in the recovery and reconstruction works. This training should enhance the capacities of professionals with regard to their knowledge of traditional design and construction technologies used in the Kathmandu Valley, their understanding of heritage conservation principles, and how these apply to the recovery of the World Heritage property.
 - Provision of expert heritage advice in regards to the development of reconstruction principles.
 - Provision of technical expertise in relation to detailed damage assessments of structures and their physical contexts, and appropriate options for interventions or remediation.
 - Provision of assistance in development of community engagement programmes to promote appropriate repairs and maintenance of traditional houses by homeowners.
 - Capacity development in the development of long-term and economically sustainable programmes linking craftsmanship skills, development, property management and tourism opportunities.

1. BACKGROUND TO THE MISSION

1.1 WORLD HERITAGE INSCRIPTION AND STATEMENT OF OUTSTANDING UNIVERSAL VALUE

The property was originally inscribed on the World Heritage List in 1979 on the basis of criteria (iii), (iv) and (vi). A Retrospective Statement of Outstanding Universal Value (OUV) was adopted by the World Heritage Committee in 2012 (WHC-12/36.COM/8E, 124). The following is taken from the Retrospective Statement of OUV.

1.1.1 OUTSTANDING UNIVERSAL VALUE

Located in the foothills of the Himalayas, the Kathmandu Valley World Heritage property is inscribed as seven Monument Zones. These monument zones are the Durbar squares or urban centres with their palaces, temples and public spaces of the three cities of Kathmandu (Hanuman Dhoka), Patan and Bhaktapur, and the religious ensembles of Swayambhu, Baudhdhanath, Pashupati and Changu Narayan. The religious ensemble of Swayambhu includes the oldest Buddhist monument (a stupa) in the Valley; that of Baudhdhanath includes the largest stupa in Nepal; Pashupati has an extensive Hindu temple precinct, and Changu Narayan comprises traditional Newari settlement, and a Hindu temple complex with one of the earliest inscriptions in the Valley from the fifth century AD. The unique tiered temples are mostly made of fired brick with mud mortar and timber structures. The roofs are covered with small overlapping terracotta tiles, with gilded brass ornamentation. The windows, doorways and roof struts have rich decorative carvings. The stupas have simple but powerful forms with massive, whitewashed hemispheres supporting gilded cubes with the all-seeing eternal Buddha eyes.

As Buddhism and Hinduism developed and changed over the centuries throughout Asia, both religions prospered in Nepal and produced a powerful artistic and architectural fusion beginning at least from the 5th century AD, but truly coming into its own in the three hundred year period between 1500 and 1800 AD. These monuments were defined by the outstanding cultural traditions of the Newars, manifested in their unique urban settlements, buildings and structures with intricate ornamentation displaying outstanding craftsmanship in brick, stone, timber and bronze that are some of the most highly developed in the world.

Criterion (iii): The seven monument ensembles represent an exceptional testimony to the traditional civilization of the Kathmandu Valley. The cultural traditions of the multi ethnic people who settled in this remote Himalayan valley over the past two millennia, referred to as the Newars, is manifested in the unique urban society which boasts of one of the most highly developed craftsmanship of brick, stone, timber and bronze in the world. The coexistence and amalgamation of Hinduism and Buddhism with animist rituals and Tantrism is considered unique.

Criterion (iv): The property is comprised of exceptional architectural typologies, ensembles and urban fabric illustrating the highly developed culture of the Valley, which reached an apogee between 1500 and 1800 AD. The exquisite examples of palace complexes, ensembles of temples and stupas are unique to the Kathmandu Valley.

Criterion (vi): The property is tangibly associated with the unique coexistence and amalgamation of Hinduism and Buddhism with animist rituals and Tantrism. The symbolic and artistic values are manifested in the ornamentation of the buildings, the urban structure and often the surrounding natural environment, which are closely associated with legends, rituals and festivals.

The full Retrospective Statement of OUV, including reference to integrity, authenticity and protection and management requirements is included as Annex 5.

1.1.2 ATTRIBUTES

The OUV of the Kathmandu Valley World Heritage Site are supported and expressed by the following attributes as summarised in the Integrated Management Framework (IMF) (2007):

- The unique architectural style of the palaces, temples, stupas and other monuments that are defined by their form, scale, structure and materials;
- The highly developed craftsmanship of the structures and ornamentation;
- The urban structure, the character of urban fabric and the distinct natural environment that create the context within which the monuments are situated; and
- The traditions and functions that bind the monuments to their distinct context, in particular the beliefs, legends, rituals and festivals.

The IMF discusses these attributes in more detail under the following headings:

- Form and design;
- Materials and Substance;
- Use and Function;
- Traditions, Techniques and Management Systems;
- Location and Settings;
- Language and Other Forms of Intangible Heritage;
- Spirit and Feeling.

Detailed lists of attributes in each of the monument zones were not provided for this mission.

1.2 HISTORY OF INSCRIPTION

1.2.1 REDEFINITION OF BOUNDARIES

The redefinition of the boundaries has been suggested and discussed during World Heritage Committee meetings as early as in 1992. This was in response to urban expansion which had changed the character of the large area originally inscribed. The redefinition of the boundaries for the Kathmandu Valley World Heritage property was requested by the World Heritage Committee at its 28th session at Suzhou, 2004 and the State Party proposed minor boundary modification which was approved by the World Heritage Committee in July 2006 (Decision **30COM 8B.42**).

1.2.2 WORLD HERITAGE IN DANGER

The property was also inscribed on the List of World Heritage in Danger (2003) as the vernacular fabric of the property had been so damaged in six of the seven monument zones. Consequently, since the time of inscription, there has been a considerable loss of authenticity and integrity; therefore the property has detrimentally suffered as a whole. Then in **2007**, the property was removed from the List in Danger (Decision **31 COM 8C.3**), as the necessary management planning measures had been and were being implemented with the development of an Integrated Management Plan and the adoption of the boundary redefinition, to sufficiently satisfy the World Heritage Committee's requirements. However, the Committee continues to actively monitor the state of conservation to certify the best possible protection is ensured at the property.

1.3 REACTIVE MONITORING MISSION, OCTOBER–NOVEMBER 2015

On 25 April 2015, a 7.9 magnitude earthquake struck middle Nepal, 80 kilometers northwest of Kathmandu. The earthquake and the aftermath resulted in disastrous loss of human life and extensive damage to the historic monuments and buildings of the Kathmandu Valley World Heritage property. According to initial assessments carried out by UNESCO and its partners on the ground, the monuments and sites within the property suffered extensive damage, as did other cultural and natural heritage sites located in the area. In particular, major damage has been reported in the Durbar Squares of Patan, Hanuman Dhoka (Kathmandu) and Bhaktapur. The temples in all seven monument zones of the property were severely affected and many of them had collapsed completely.

In response to the extensive damage to the property of the earthquake and aftershock, the World Heritage Centre and the Advisory Bodies recommended that the World Heritage Committee inscribe the property on the List of World Heritage in Danger, during the 39th session of the World Heritage Committee (Bonn, Germany). The State Party requested postponement of danger listing in view of the enormous efforts made.

By decision **39COM COM 7B.69 (Annex 1)**, the World Heritage Committee requested that the State Party invite a joint World Heritage Centre/ICOMOS/ICCROM Reactive Monitoring Mission to consider the state of conservation of the property and the development of an emergency action plan by the Government of Nepal.

At the invitation of the Department of Archaeology (DoA) of Nepal, the joint Reactive Monitoring Mission to Kathmandu Valley took place from 27 October to 2 November 2015. The mission was composed of the following members:

1. Mr Feng JING, Chief of the Asia and the Pacific Unit, UNESCO World Heritage Centre (Paris)
2. Mrs Catherine Forbes, (Australia), representing ICOMOS International
3. Mr Gamini Wijesuriya, representing ICCROM.

As detailed in the Terms of Reference provided in **Annex 2**, the mission assessed the current state of conservation of the property in relation to on-going rescue operations being carried out by the State Party with the support of other donors. It also assessed progress with the emergency response to the disaster carried out and/or being carried out by the Department of Archaeology (DoA) with the support of various donors and agencies. This included immediate and urgent mitigation measures undertaken in relation to cultural heritage, such as securing sites and sifting the rubble for significant building elements and other artefacts of aesthetic, religious or archaeological value, the protection of remains, the compilation of inventories and storage of artefacts, the preparation of condition reports for damaged property to establish baseline information for each site (as envisaged in the Post Disaster Needs Assessment (PDNA) prepared by the Government of Nepal), and rebuilding the capacity of the management authorities. The mission also assessed progress made with planning for restoration and rebuilding in the short, medium and longer term, suggesting improvement of existing organisational structures and establishment of a Steering Committee to facilitate the coordination of all efforts in the recovery process with public and private sector stakeholders. The mission further reviewed the recovery Master Plan and the conservation approaches to restoration and re-building in relation to sustaining the OUV of the property. The revitalisation of traditional craftsmanship and skills for restoration and rebuilding was highlighted during the mission.

The UNESCO Kathmandu Office fully supported the mission members, providing logistical support and valuable information regarding the state of conservation of the property and historical documentation on the property. Detailed information on the actions taken by the Government authorities and local municipal and government authorities were also received and considered during the mission.

2. LEGAL AND MANAGEMENT FRAMEWORK

2.1 HERITAGE LEGISLATION

The Ancient Monument Preservation Act, 1956 (Fifth Amendment, gazetted in 1996), gives the Department of Archaeology (DoA), currently under the Ministry of Culture, the central responsibility for the conservation of cultural heritage throughout the country.

This Act gives the DoA the legal provisions to declare a monument or area to be a Protected Monument Zone (PMZ). The DoA is subsequently responsible for the protection of the site, including the prescription of building bylaws, approving requests for building permits and for any other construction activities within the zone. The DoA is given the authority to stop inappropriate and/or illegal building activities and to request for the demolition of unauthorized constructions.

The seven Monument Zones of the Kathmandu Valley World Heritage property have been declared PMZs and the boundaries have been gazetted under the provisions of the AMPA. The DoA is therefore responsible for the preservation of the areas comprising the property inscribed on the World Heritage List.

In addition to the 1956 Act, the following legislation or regulations complement the legal grounds upon which cultural heritage is protected in Nepal:

- Local Self-Governance Act (1999)
- Town Development Act (1988)
- Pashupati Area Development Trust Act (1987)
- *Guthi* Corporation Act (1964)
- Building Bylaws (2007)
- National Building Code (prepared in 1994, approved in 2005)

The seven Monument Zones of the Kathmandu Valley were inscribed as a single World Heritage property in 1979. Twenty-four years later, in 2003, the property was inscribed on the List of World Heritage in Danger due to the loss of traditional vernacular heritage and the threat of uncontrolled development.

From 2004 onwards, the State Party has committed itself to work closely together with the stakeholders and responsible international agencies to address the issues that have threatened the OUV of the Kathmandu Valley World Heritage property. One of the key achievements have been the process leading to the development of an Integrated Management Plan (IMP), which was prepared in close cooperation between the Department of Archaeology and the local authorities and site managers, with international support and expertise.

2.2 INSTITUTIONAL FRAMEWORK, MANAGEMENT STRUCTURE AND CO-ORDINATION MECHANISMS

As defined by the Ancient Monument Preservation Act 1956 (fifth Amendment, gazetted in 1996), the DoA is the principle authority for the coordination of conservation activities of the World Heritage properties. Powers in respect to enforcing bylaws and monitoring are handed down to the local authorities.

Clearly defined site managers have been established for each of the seven Monument Zones;

Identification and improvement of processes and linkages within the management structure have been carried out, and a clear system for the flow of information has been established. Separation of reporting and decision-making processes for regular, irregular and emergency cases are to be established.

For the conservation of historic buildings, community involvement and participation is to be encouraged, incorporating disaster and risk management.

The World Heritage property has been declared a PMZ under the Ancient Monument Preservation Act 1956, providing the highest level of national protection. The property is managed by the coordinative action of tiers of central government, local government and non-governmental organizations and the responsibilities and authorities are clearly enumerated in the (IMP). The implementation of the IMP has been reviewed in five-year cycles allowing necessary amendments and augmentation to address changing circumstances. A critical component that has been identified is the need for disaster risk management for the property.

The IMP defines the approach and strategies for the preservation of the Outstanding Universal Value (OUV) of the property through the improvement of existing institutional, legal and economic frameworks. The process is defined by the sixteen documents that comprise the IMP. The Integrated Management Framework is the official document that has been adopted by the State Party, and supplemented by a working document, the Integrated Plan of Action. Additionally, Management Handbooks have been prepared for each of the seven Monument Zones, each supplemented by individual Plans of Action. These documents are to be reviewed and revised at regular intervals.

With the completion of the IMP, a clearly defined approach and strategies for the protection of the OUV of the Kathmandu Valley has been put in place through improvement of existing legal and administration frameworks. However, the implementation of the IMP still requires further efforts by the State Party, in particular to enhance capacity, which is critical for the successful implementation of the IMP.

After the earthquake of April 2015, the DoA has been developing conservation guidelines and a Recovery Master Plan to address the emergency situation of post disaster restoration and rebuilding for the World Heritage property.

3. IDENTIFICATION AND ASSESSMENT OF ISSUES / THREATS

3.1 MANAGEMENT EFFECTIVENESS

3.1.1 COORDINATION

The mission team congratulate DoA and UNESCO for promptly and successfully establishing the Earthquake Response Coordination Office (ERCO) immediately following the humanitarian response and within two weeks of the initial earthquake striking the region. ERCO, which comprises various experts from DoA and ICOMOS Nepal, assisted financially by UNESCO, has been meeting on a regular basis (initially daily and now at least weekly) to coordinate and facilitate the emergency response to Nepal's cultural heritage sites including the World Heritage property of the Kathmandu Valley. The team notes that ERCO is located within the DoA office to provide assistance as required.

The mission team identified the following concerns in relation to management effectiveness of the property.

- There has been a lack of clear and effective direction from the Government of Nepal in relation to the disaster response and recovery, including in relation to the recovery of Nepal's cultural heritage, primarily due to other political priorities, such as formulation of a new national constitution, followed by general elections for a new government and political unrest. This has impacted the recovery coordination across the nation and has contributed to delay in the functioning of the National Reconstruction Authority. The mission team acknowledges the DoA's efforts to organize an appropriate response to the disaster in relation to Nepal's cultural heritage, despite the lack of political direction.
- Effective coordination needs to be developed and/or strengthened between DoA and the following:
 - other government authorities, both local and national, with responsibility over disaster response and recovery;
 - other government authorities, both local and national, with responsibility over urban planning and development in and around the World Heritage property, including development of urban infrastructure (roads, water, sewage, electricity, etc);
 - site management and local government authorities with responsibility over the management and development within the seven monument zones comprising the property;
 - Guthi Sansthan, local guthis and community organisations connected with each monument zone;
 - international parties offering funding and expert technical assistance; and
 - local contractors and international experts.
- To ensure that:
 - decisions made and works undertaken respect the OUV, integrity and authenticity of the World Heritage property, with a view to recovering, where possible, the attributes that support and express OUV;
 - works undertaken do not result in further physical damage to the monuments, their sites, or their significant settings;
 - works undertaken do not jeopardise future rehabilitation of the sites within the monument zones;
 - the response is coordinated, recognizing overlapping responsibilities;

- there is clear definition and shared understanding of what constitutes appropriate reconstruction and/or development within the individual monument zones and buffer zones, based on an analysis of what remains and other relevant evidence;
 - reconstruction of urban infrastructure, housing, businesses, etc within the core monument zones and buffer zones respects the OUV of the property, the attributes and its significant settings, and do not contribute to further deterioration of the heritage fabric; where reconstruction of vernacular buildings cannot reflect what has been destroyed, a clear rationale for replacement needs to be set out;
 - traditional cultural connections, rituals and practices continue within the monument zones and are maintained in a way that respects and supports the OUV of the World Heritage property; and
 - DoA priorities are followed in relation to what and how monuments are repaired or reconstructed, following strict guidelines.
- It is noted that there is likely to be considerable pressure to rebuild within the monument and buffer zones using new approaches and technologies that will potentially have considerable impact on the OUV of the property and its significant attributes. This needs to be addressed through effective communication between the DoA and the above listed parties.
 - In order to effectively maintain and recover OUV, it will be essential that the State Party liaises with and seeks expert guidance from the Advisory Bodies to the World Heritage Committee. All proposals for reconstruction, as well as new development within the World heritage property, must be consistent with maintaining the OUV of the property. To this end, as and when appropriate:
 - Expert technical assistance should be sought by the state party from the Advisory Bodies in the preparation of all recovery planning documents, including Recovery Master Plans, reconstruction principles, conservation policies, guidelines and procedures, as well as development of guidelines for any new development proposed within the monument zones and buffer zones of the property. These documents should, at minimum, be submitted to the Advisory Bodies for peer review prior to adoption and implementation.
 - Expert technical assistance should be sought by the state party from the advisory bodies to assist in the development and provision of specialist training programmes to the build capacity of staff, consultants, contractors, property managers and artisans to enable the effective recovery of the World Heritage property.
 - The Recovery Master Plans must be submitted to the World Heritage Committee for approval prior to implementation.
 - Proposals for reconstruction or replacement of collapsed structures within the monument zones should also be submitted for approval by the World Heritage Committee, with justifications and assessments of their impact on OUV.

3.1.2 ACTIONS TAKEN

The mission team acknowledge that DoA has undertaken the following essential tasks as part of the disaster response and congratulates them in their efforts. The DoA has:

- Undertaken appropriate emergency response actions to secure and stabilise the various monuments within the World Heritage property, and to salvage and protect materials, artefacts and collections from the collapsed or damaged buildings (including the severely damaged Hanuman Dhoka Palace Museum);
- Obtained some preliminary damage (rapid) assessment reports of the properties (these are simple visual assessments and not comprehensive);

- Established priorities for stabilization, repair and reconstruction of the structures based on the extent of damage. Highest priority has been given to severely damaged structures. These have been stabilized to prevent collapse. Partially damaged structures are prioritized for repair ahead of totally collapsed structures. The significant elements of the latter have been salvaged for future reconstruction;
- Commissioned documentation (measured drawings) of the damaged buildings to provide a basis for more detailed damage assessments and documentation for repairs;
- Prepared draft guidelines for the rehabilitation works to be used by DoA staff and contracted consultants to ensure appropriate repairs are undertaken;
- Contracted 40 architects and 25 engineers to prepare documentation for repairs and reconstruction of damaged structures within the World Heritage property;
- In association with Durham University, undertaken investigations of the Durbar Squares through the use of ground penetrating radar to prepare archaeological risk maps that identify potential archaeological remains under the squares to minimize disturbance in future infrastructure and reconstruction works;
- As a case study, has undertaken physical investigations of the Kasthamandap foundations to determine their condition and stability. Evidence suggests that the foundations of the monument are undamaged and that major interventions (such as the addition of deep piles) may not be required for reconstruction.
- Planned to undertake detailed structural analysis of selected monuments, although the rationale for choice of monuments is not clear. These investigations are to be managed by UNESCO.

The mission team identified the following additional needs that must be addressed before the detailed actions in the Recovery Master Plan are developed:

- Maps showing the extent of damage across all seven monument zones of the World Heritage property need to be produced to accompany the inventories. These should show relative levels of damage, including all totally collapsed, severely and partially damaged structures, in the core monument and buffer zones, and not just listed monuments, but also the vernacular and other urban structures;
- Detailed damage assessments are still required for all structures. These should review the extent of damage and identify causes of failure. The damage should be documented on detailed plans, sections and elevations, as well as in written reports and through detailed photographic recording.
- Assessment of the effectiveness (successes and failures) of the different methodologies and types of interventions used in reconstruction and seismic upgrade of monuments within the World Heritage property over the last 40-50 years is recommended as it would provide useful data for future decision making. If this research is to be undertaken, the evaluation of the interventions should take into consideration the relative age and condition of the works.
- Investigation of local ground conditions (including infrastructure such as paving, drainage, water and sewerage pipes) to determine their contribution to the failure of structures is recommended to identify changes required to minimize future risk to the monuments.
- Effective coordination of the activities being undertaken by the various organisations and teams working across the different monument zones is needed.
- Establishment of a centralised database is needed for the effective collation of damage assessments, research findings and works undertaken by the various teams on the different sites. It needs to be easily accessible to facilitate information sharing and to minimise duplication of activities.

- From the assembled materials, assessments then need to be made as to which attributes can be recovered/reconstructed on the basis of material recovered and adequate evidence, and which have been totally destroyed or damaged beyond recovery and need to be re-built in a different form;
- The draft conservation guidelines prepared by the DoA need to include conservation principles and conservation policies for different types of interventions and additional guidelines relating to ongoing conservation practices. The statement of OUV of the World Heritage property and the detailed attributes within each monument zone should be included as part of each document to guide decision making.
- In light of the current materials shortage, salvage of building elements, such as bricks and plain non-ornamented timbers, should be recovered and stored for reuse, and not left in public areas.

3.1.3 RECOVERY PLANNING

The mission team acknowledges that the Revised Integrated Management Plan (IMP) for the Kathmandu Valley World Heritage property was completed on the day of the earthquake. It now needs to be reviewed and updated in light of the recent events. Similarly, new action plans will be required to address the impacts of the earthquakes.

A Post Earthquake Rehabilitation and Restoration Policy (Proposed Recommendations) has been prepared which identifies roles, responsibilities and priorities in relation to the rehabilitation of the monuments, heritage sites, historic settlements and cultural structures. DoA has the coordinating role, supported by local government, community, the Guthi Sansthan, international organizations and experts. In this document higher priority is to be given to severely and partially damaged heritage structures than to the totally collapsed structures. DoA is responsible for coordinating supply of funds, materials, expertise and skills required for rehabilitation of Nepal's cultural heritage. Reference to the importance of maintaining OUV is missing from this policy document.

DoA has prepared draft conservation guidelines for the post earthquake repair, restoration and rehabilitation work. These were still being discussed and developed and the DoA was seeking the help of an international peer review team for their finalization.

A Draft Six-year Overview Rehabilitation Plan has been developed, which outlines tasks to be undertaken during the response, planning and implementation phases. The first year is devoted to the emergency response and planning phase. Projects will be undertaken at national, community or international level, depending on their location, heritage significance and complexity. In light of the extent of damage experienced and the resources available (financial, material and human), the proposed six-year timeline seems optimistic and probably inadequate. (Refer to Annex 9).

At the time of the mission, no Recovery Master Plans or detailed action plans had been prepared for the property as a whole or the individual monument zones. Steering committees have not been formed to guide the recovery on individual zones. The Recovery Master Plan is needed as the over-arching document for the recovery process that brings together documentation, analysis, and understanding of the attributes of OUV as a basis for defining the way forward for each of the areas, and with the areas for each of the key buildings and streets. The Recovery Master Plan should be reviewed by the Advisory Bodies and submitted to the World Heritage Committee for approval prior to adoption and implementation.

The mission team acknowledges that offers of financial and technical assistance have already been made to the Nepal Government by various countries to enable recovery of the individual monuments within the World Heritage property. The proposed programs need to be coordinated by the DoA to ensure that they are

consistent with the priorities and conservation approaches set out by the DoA, Action Plans and Recovery Master Plans, which are yet to be developed.

No structure or process has been established for DoA review of works undertaken by external consultants. Ideally this would include review and assessment of proposals prepared by consultants and /or organisations documenting and carrying out the work to ensure that they comply with the DoA priorities, policies and guidelines for repair and reconstruction works. To promote transparency and accountability, monitoring and periodic inspections and reporting on progress and expenditure is recommended.

Disaster Risk Management Plans taking into consideration all relevant hazards, both natural and human, have yet to be developed for the various sites. These are required as a matter of urgency as there is still the possibility of further earthquakes and the buildings are also vulnerable to other hazards at this time (fire, monsoon rains, floods and landslides) due to their condition and that of their surrounding environment.

3.2 EARTHQUAKE DAMAGE AND CONSEQUENT THREATS TO THE PROPERTY AND ITS OUTSTANDING UNIVERSAL VALUE

3.2.1 EARTHQUAKE DAMAGE

All seven monumental zones of the Kathmandu Valley World Heritage property were severely damaged by the earthquakes of 25 April and 12 May, with 33 monuments recorded as totally collapsed and 107 partially collapsed. Over 750 listed heritage monuments across the country were impacted by the earthquake. A preliminary list of the damaged monuments is included as Annex 8.

Further observations made by the mission team regarding threats to the OUV of the individual monument zones and their attributes are included below. Photographs are included as Annex 7.

Specific issues and threats to OUV are discussed in more detail in the following sections.

HANUMAN DHOKA DURBAR SQUARE MONUMENT ZONE

Hanuman Dhoka Durbar Square was the zone most heavily impacted by the earthquake with eleven monuments (eight tiered temples, two shikhara temples and a pillar) recorded as having totally collapsed, including Kasthamandap, reputedly the oldest temple in the square and the one after which the city is supposedly named. Almost all the temples and other monuments in the monument zone were damaged, including the Hanuman Dhoka Palace, which was severely damaged with portions still at risk of further collapse. Full damage assessments are yet to be carried out.

The loss of many of the larger tiered temples in Hanuman Dhoka Durbar Square has had a significant impact on the square and its architectural character, particularly the central portion of the square. Many of the smaller tiered temples, however, survive in the northern portion of the square and the tiered masonry bases of the collapsed temples, some of which are extremely high and have substantial footprints within the square, generally remain as landmarks within the square, maintaining some sense of the scale of the buildings lost.

The collections from the museum have been substantially salvaged and stored. The carved elements that provided the characteristic ornamentation to the demolished temples and demonstrated the high level of craftsmanship associated with the temples, have been salvaged and are now mostly stored in the palace courtyard. Due to lack of safe covered areas, many elements are stored under tarpaulins, but still exposed to the weather. Larger elements that are considered too large and heavy to be moved and therefore safe from theft, including two of the remaining highly significant posts of the Kasthamandap (two are still missing), remain in the public square, along with timber and bricks, which are not considered of such high value. The urgency to clear the squares for the Kumari's cart festival has led to many building elements being mixed up in the clean

up, with their origins not recorded. These will require sorting and inventorying before plans are made for their future.

Although some areas of the Durbar Square are roped off to prevent visitor access, large areas and many of the temples, even though damaged, have been reopened to the public. Several temples near the former public entrance to the Hanuman Dhoka Palace have loose bricks that pose a potential danger to the public if they fall.

Although temples have collapsed, in many cases the sacred elements at the centre of each temple have remained intact and daily offerings are continuing. Seasonal festivals are also continuing, including festivals associated with the Kumari (which include pulling a large cart through the square to the Kumari Ghar). Thus the attributes associated with the maintenance of traditional beliefs, rituals and festivals have been maintained.

More than 70 people died in the collapse of Kasthamandap due to Red Cross blood donations being taken in the temple at the time. In the urgency to retrieve bodies from the temple debris, heavy machinery was used, which caused considerable damage to the brick base of the temple as well as the collapsed elements. Subsequent archaeological investigations have revealed that the brick base, excluding the damage by the bulldozers, is sound and will provide a firm foundation for future rebuilding if this is considered appropriate.

Despite the extent of damage and loss of significant fabric, the Hanuman Dhoka Durbar Square Monument Zone still retains much of its significant urban character, which contributes to the OUV of the place. The attributes associated with the unique architectural style of its palaces, temples and monuments have been impacted, but most still remain evident and may be recovered. The salvage of the important carved timber, stone and metal elements from the monuments and the collections from the museum will enable their restoration at a future date. An archaeological risk map of the square has been prepared so that archaeologically sensitive areas can be avoided in future reconstruction works.

There has been substantial damage to many houses and other historic buildings in the core monument and buffer zone, with some collapses. Buildings are currently propped and awaiting proper damage assessments. Broken pipes under the squares, poor drainage and the pressure of urban infrastructure and development are continuing to threaten the fabric, integrity and authenticity of the core monument zone and buffer zone. The potential replacement of damaged buildings with modern structures, particularly if they are of a larger scale than the traditional buildings, will have a substantial impact on the significant urban character of Hanuman Dhoka Durbar Square, a key attribute of the monument zone and of its buffer zone.

BHAKTAPUR DURBAR SQUARE MONUMENT ZONE

Up to 250 monuments have been affected by the earthquake in the Bhaktapur monument zone. Five monuments (three temples, a sattal and a city gate) are recorded as having collapsed in the monument zone. Others have been partially damaged, including the recently restored museum wall in which the city's famous peacock window is located. Carved stone and timber elements from the collapsed temples have been salvaged and stored, although many elements are located outside in the weather. Damaged buildings have been propped.

Bhaktapur suffered badly in the 1934 earthquake with many temples not being rebuilt and others rebuilt on a much smaller scale. The recent losses include temples that collapsed previously, including one that had been reconstructed using cement mortar (Batsala Devi Temple). Others restored or rebuilt in recent years survived with very little damage, including one constructed with structural steel bracing elements to strengthen it, and another rebuilt totally in the traditional manner with timber bands embedded in the brickwork (Fifty-Five Window Palace).

There has been extensive damage to the traditional housing located in the buffer zone. As with the Hanuman Dhoka Durbar Square Monument Zone, urban pressure has been impacting the integrity and authenticity of the monument zone, including along the main path linking the various squares.

Daily rituals and seasonal festivals are continuing at all religious sites.

PATAN (LALITPUR) DURBAR SQUARE MONUMENT ZONE

Four tiered temples and a pillar are recorded as collapsed in the Patan Durbar Square. Damaged has also been sustained by the Patan Museum complex, including bulging walls and partial collapse of two recently restored towers. Loose bricks in the main entrance courtyard pose some risk to visitors.

Other monuments and housing in the Patan core and buffer monument zones have sustained more minor damage, mainly to roofs and towers. Some collapses were noted of previously abandoned buildings.

Daily rituals and seasonal festivals are continuing at all religious sites, although with reduced numbers of worshippers (due to the current fuel crisis).

CHANGU NARAYAN MONUMENT ZONE

The principal temple structure suffered partial damage to its brickwork (already re-laid at ground level) and its top windows (one of which has collapsed). The full extent of damage to the upper portions of the temple is unknown. Two smaller temples and the upper storey of the sattals that surrounded the temple courtyard have collapsed. This has had a substantial impact on the integrity of the temple complex and the important courtyard setting of the principal temple. Other temple structures, the stairs and entrance gate leading into the temple complex have also suffered partial damage. The temples have been propped, and the timber and bricks of the collapsed temples and sattals collected and stored.

The priests that occupied the sattals have moved into the local settlement located below the temple complex. Religious rituals have continued on a daily and weekly basis, as have the special seasonal festivals, although poverty is threatening this.

Houses in the settlement located along the principal approach path leading up to temple, and which form part of the monument zone, contributing to its distinctive setting, have also suffered full or partial collapse. Some rebuilding has commenced, but not necessarily using traditional methods and housing typologies.

PASHUPATI MONUMENT ZONE

Although the principal temple suffered only minor damage (reported by the site managers as no access was available for inspection by the mission team for customary reasons), considerable damage was experienced in other parts of the site. This includes damage to the buildings along the main access path to the main temple, all five temples in the central courtyard of the hostel for the aged (Pancha Deval), various other secondary buildings within the temple complex and damage to the Guheshwori Temple and Sattal on the north-east side of the hill (also no access available for inspection).

The greatest earthquake damage was experienced by the structures on the top of the hill, which included full or partial collapse of many small linga shrines and the collapse of the large dome over the Vishwarupa Temple after the monsoon rains. Only minor damage was reported to the temple after the earthquake in the form of a small hole in the dome. But the hole could not be covered and the rains that entered the building in subsequent months are thought to have caused the collapse.

All traditional religious rituals are continuing on the site, including consultation with priests, offerings and cremations.

Development pressure at the main temple site is threatening the aged hostel complex, which although identified as a monument on the 2006 Pashupati Monument Zone Plan, has been identified for demolition on the Master Plan for the site so that the principal temple complex may be extended to cater for the large numbers of pilgrims coming to the site, especially from India. The elderly residents are due to be relocated away from the temple complex. A new master plan is currently being developed for the site, but was not viewed by the mission team.

Earthquake damage was also experienced in the ancient settlement area to the west of the principal temple site, including to the Jayabageshwori Temple and the few remaining traditional houses in the settlement. Urban development in this area has seen the replacement of most of the traditional houses in the precinct with modern concrete and masonry structures. This has occurred as many of the traditional residents have moved out of the area, which is close to the temple complex, and new businesses have moved in to cater for the many pilgrims. The few remaining historic houses in the area are in poor condition, some collapsed. The traditional street layout of the area remains.

New solar lighting impacts visually on the setting of the monument zone along the Bagmati River.

Landslides appear to continue to be a threat around the hilltop, encroaching on the temple area and access paths.

SWAYAMBHU STUPA MONUMENT ZONE

Following the earthquake the main stupa experienced considerable cracking of its surface. Temporary consolidation was undertaken to protect the stupa during the monsoon rains. Further investigations and permanent repairs are to be undertaken during the dry season.

The Shantipur Temple located on the northern approach to the main stupa complex suffered considerable damage, including to its internal wall paintings (internal inspection not possible for customary reasons). In addition, several sattals, the museum and several other temples located around the top of the hill and surrounding the main stupa suffered either full or partial collapse. Relics were salvaged from the top of a small stupa that collapsed to the southwest of the main stupa. It has been covered for protection from the rains. Partially damaged temples have been propped, including two Shikhara temples that flank the eastern approach to the main stupa.

The retaining walls built to contain unstable ground below many of the sattals that collapsed on the south-western side of the hill are showing substantial cracks and dislocation, indicating that landslides are still a serious threat to the structures on the top of the hill. Reconstruction of structures on this unstable ground around the edges of the hill is likely to threaten the site's future stability. It was noted that the priest and monks associated with the site have housing in the settlement below the hill.

Daily rituals and seasonal festivals are continuing at the site.

BAUDDANATH MONUMENT ZONE

The section above dome of the stupa partially collapsed and has been dismantled for repair. The gold cladding to the top section and the relics out of the top of the stupa have been salvaged and stored securely within the precinct. The brickwork of the steps has been salvaged for reuse and the timber structure of the crown has been taken down for repair. The Yasti (central pole) was found to have decayed and a new Yasti has been prepared (carved from a single tree) and consecrated through twenty days of prayers and offerings by Buddhist monks associated with the site.

Pilgrims are continuing to visit the site, although they have no access to the circumambulation area, but daily rituals and seasonal festivals are continuing.

3.2.2 IMPACT OF EARTHQUAKES ON ATTRIBUTES OF OUV

The extent of damage to the attributes that support and express the OUV of the World Heritage property may be summarised as follows under the broad summary of attributes included in the Integrated Management Framework, although it is noted that this list must be augmented by detailed lists for each of the Monument Zones as part of the systematic analysis that needs to be undertaken:

LOSS OF AND THREATS TO UNIQUE ARCHITECTURAL ATTRIBUTES

The unique architectural attributes of the palaces, temples, stupas and other monuments, defined by their form, scale, structure and materials, are important attributes of the OUV of the World Heritage property.

PALACES

The palaces, which are the largest structures located within the three urban ensembles, comprise complexes of multiple interlinked buildings and towers arranged around courtyards. The buildings, usually three storeys high with the towers several storeys higher, have been built in stages over hundreds of years and demonstrate several architectural styles from different periods. They are generally brick with timber structural elements and highly decorated timber windows, doors, roof struts and bands. The most recent portions being rendered and painted.

- The Hanuman Dhoka Palace suffered the most damage, losing its tiered nine-storey palace tower, one of its oldest portions. It also experienced extensive structural damage to its more recent nineteenth century wings, which due to the type of damage will need to be substantially rebuilt. At present, although many of the carved elements have been salvaged and the damaged portions propped, large portions of the building remain in a precarious state and open to the weather with the likelihood of further damage from water entry and aftershocks. It would appear that sufficient physical and documentary evidence survives to enable rebuilding.
- The palace at Patan suffered some damage, with the loss of two recently reconstructed towers and a rear wing that was under construction at the time of the earthquake. The palace remains substantially intact. Loose bricks need to be restored.
- The recently rebuilt fifty-five window palace in Bhaktapur suffered minimal damage and stands as an excellent example of traditional anti-seismic design and construction.
- In general, with the exception of the nine-storey palace and nineteenth century wings of the Hanuman Dhoka Palace, the palaces do not appear to be under threat.

TIERED TEMPLES

The unique tiered temples for which the many of the Kathmandu Valley World Heritage sites are known, are mostly built of fired brick with mud mortar and timber structural elements. The roofs are covered with small overlapping terracotta tiles, with gilded brass ornamentation. The windows, doorways and roof struts have rich decorative carvings. Many of these tiered temples, which vary from three to nine tiers, are built on large stepped brick plinths.

- The tiered brick and timber temples as a group suffered considerable damage, particularly in the area of Hanuman Dhoka Durbar Square, which experienced the collapse of some of its largest and most historic examples, including Kasthamandap. However, many other fine examples of this temple type survived the disaster within the Kathmandu Valley World Heritage property, including within the

Hanuman Dhoka Monument Zone. Although the tall superstructures of these temples collapsed, the stepped pyramidal brick bases have survived.

STUPAS

The large domed stupas of the two Buddhist sites have simple but powerful forms with massive, whitewashed hemispheres supporting gilded cubes with the all-seeing eternal Buddha eyes and umbrella-like crowns.

- The large stupas have both survived, although the square top of Baudhanath has been disassembled for repair using the salvaged materials. The Yasti, or central pole, which was found to be rotten, has been replaced following 20 days of meditation and ritual offerings being made.
- The dome of Swayambhu was cracked, but the damage has subsequently been found to be relatively superficial.
- The stupa typology is not at risk, although instability of the hill top at Swayambhu may put the ancient stupa at risk in the future.

OTHER RELIGIOUS ATTRIBUTES

Other temple forms include the rectangular Shantipur temple at Swayambhu, the tall whitewashed stepped Shikhara style temples and a large square temple surmounted by a large dome (at Pashupati), which is more recent. These attributes are not defined in the OUV, but do have heritage value within the monument zones.

- The Shantipur temple, which has great spiritual and symbolic significance, suffered severe structural damage, as well as damage to its significant wall murals. The temple may not be able to be saved.
- The large dome of the nineteenth century Vishwarupa Temple located on top of the hill at Pashupati collapsed after the earthquake and monsoon rains. It was a particularly large and rare example of its type.
- There was some damage to Shikhara style temples at Swayambu, Pashupati and Bhaktapur
- A rare stone clad temple collapsed at Bhaktapur. The fracturing of the stones, due to the use of cement mortar in previous repairs, will make it very difficult to restore this monument.
- Other monument types were affected to varying degrees. Those located on or in the ground, such as step wells, generally survived relatively well. The sculptural elements on the tops of monumental pillars, on the other hand, fell during the earthquake and were damaged. Most are recoverable.

SATTALS

The sattals provide accommodation for the monks associated with each of the religious ensembles. They are generally vernacular style buildings of fired brick with mud mortar, timber structural elements and tiled roofs. They have intricately carved windows and, doors, bands and struts. They also often feature open undercroft areas supported on timber posts and beams, also carved. The sattals are usually built around the temples and make a significant contribution to their settings.

- The brick sattals that accommodated the monks suffered very badly at Changu Narayan and Swayambhu, where they collapsed. The monks' accommodation buildings at Pashupati were also damaged, but are still standing.

TRADITIONAL URBAN SHOP/HOUSES

The houses, which are mostly three storeys in height, built closely abutting each other and to property boundaries, are characterised by their high quality brickwork, intricately carved timber elements (windows, doors, posts, beams, bands and brackets), large overhanging tiled roofs and symmetry.

This attribute is at great risk in regard to integrity and authenticity as the earthquake damage has compounded already existing threats from urban infrastructure, rising ground levels, poor drainage and ever increasing development pressure.

- Lack of understanding among property owners of the effectiveness of traditional earthquake resistant construction technologies incorporated in traditional house designs and the belief that traditional buildings are not safe is likely to result in the loss of traditional house typologies, unless there is a good public awareness program and financial support provided to assist homeowners.
- The poor condition of many houses, resulting not just from earthquake damage, but also from lack of routine and periodic maintenance, and pressure from urban infrastructure (contributing to flooding during the monsoons and problems of decay resulting from this), is also placing traditional house typologies at risk. There is a need to discuss the links between lack of maintenance, decay of building materials and the failure of structural elements during the earthquake.
- In addition to these threats, vertical subdivision of the houses (through splitting the inheritance between family members) and multiple ownership issues as discussed in previous reports also continue to threaten the survival of traditional houses.

REST HOUSES

Other attributes of urban vernacular architecture include rest houses.

- Although some rest houses suffered some damage, most survived, probably due to their small scale.

Cyclical Renewal in relation to temples and other monuments

Cyclical renewal of the temples following earthquake is common practice in Nepal and is anticipated to continue. However, more detailed research is needed to identify particular attributes that may be under threat in relation to the various typologies.

- Wherever possible, the brick, timber, stone, terra cotta and mud building materials of the collapsed structures have been salvaged for reuse.

THREATS TO THE HIGH LEVELS OF CRAFTSMANSHIP

Many of the buildings that collapsed exhibited very high levels of craftsmanship in brick, stone, timber and metalwork. This is particularly evident in the ornamentation on the buildings.

Immediately following the earthquake, as many of the timber, stone and bronze decorative elements as possible were salvaged, inventoried and stored. Even so, many were lost or severely damaged by the earthquake and subsequent emergency response to recover people from the sites, whilst others were found to be already in a severe state of decay prior to the disaster. The ornamentation on the temples is intrinsically related to the use, beliefs and legends associated with the temples.

Threats to maintaining the traditionally high levels of craftsmanship and the symbolic and artistic values of the ornamentation on the temples include the following:

- There are few master craftsmen with the traditional skills and knowledge to recreate the highly ornamented elements that were lost. The potential use of unskilled craftsmen will impact the OUVs of the property.
- Local craftsmen that have high skill levels in timber and stone carving may not necessarily have the knowledge required to enable the relevant stories and legends to be depicted on each of the

temples (the Gods and Goddesses to be depicted, their poses, their location on particular elements within the temple, etc). The potential use of inappropriate carvings on the temples will have a substantial impact on authenticity.

- Craftsmen have traditionally held a very low position in society. There is a need for their skills and knowledge to be more highly valued within the community.
- Many bricklayers, masons and carpenters are not trained in traditional construction as modern materials and technologies have come to dominate the construction industry. Workers can earn a better living through engagement in modern construction.
- In addition, experienced construction workers seek employment outside the country in order to improve their earning capacity and improve the living standards of their families. This further depletes the number of skilled craftsmen available for undertaking reconstruction work on heritage sites.
- The possible importation of craftsmen from outside Nepal will also impact authenticity which identify the high level of craftsmanship, symbolic and artistic values exhibited in the ornamentation on the buildings as belonging to the Kathmandu Valley.
- The reconstruction of temples with simplified carvings to replace missing carvings will result in the loss of the ornamentation for which the temples are inscribed and fail to maintain the important craft skills and knowledge required to sustain the temples into the future. It will also leave gaps in the stories told on the temple sites.
- Some temples may only be entered by senior priests or monks. The restricted access to Shantipur temple at Swayambhu has implications for the salvage and/or repair of damage to the internal wall murals.
- The traditional timbers used in the construction of the temples and for their ornate carvings are now rare and extremely difficult to obtain.
- There is a lack of high quality bricks manufactured that are suitable for use in the monuments.

It should be noted that, despite the losses, fine representative examples of highly developed craftsmanship in brick, stone, timber and metal work have survived the earthquake.

LOSS OF AND THREATS TO THE UNIQUE URBAN AND ANCIENT SETTLEMENTS

The unique structure and fabric of the urban settlements provide the context within which the monuments are situated and contribute to their OUV. The distinctive character of these areas is defined by the scale, form, design and materials of the traditional Newari architecture of which they are comprised and the layout of the public squares and streets which give them their urban structure.

The three urban monument zones (Hanuman Dhoka, Patan and Bhaktapur) have all been affected by the damage to or collapse of the vernacular buildings that comprise them and give their distinct character. In Bhaktapur, many houses collapsed in and around the monument zone. In Hanuman Dhoka many buildings, particularly shop houses suffered severe damage and have been propped. Patan suffered less damage. The houses in the ancient settlements of Changu Narayan and Pashupati also suffered severe damage.

Loss of and threats to the unique attributes of the urban and ancient settlements include the following:

- There has been extensive damage to the monuments and to the traditional houses and other buildings that comprise the urban and ancient settlements. This has had considerable impact on the integrity of the protected monument zones.
- Although it is likely that many temples will be rebuilt, there is an anticipated threat to the urban and ancient settlements arising from the damage to the traditional houses. It is anticipated that there will be substantial pressure from owners, tenants and various authorities to rebuild using contemporary designs, technologies and materials that are considered more seismically resilient. Without financial

and technical support it is possible that they may not be rebuilt using traditional materials, technologies and craftsmanship, resulting in a loss of significant character and authenticity of these settlements.

- Development pressure continues to threaten the urban and ancient settlements. Although street layouts remain substantially intact, the number of traditional buildings remaining in the core monument zones continues to diminish, with the old buildings being replaced by new ones that differ in scale, detail and type of construction. It is anticipated that the earthquake will increase this pressure rather than diminish it.
- Urban infrastructure, in particular water and sewerage pipes, was also damaged by the earthquake. Replacement of urban infrastructure will be required, which will involve lifting pavements and road surfaces. It will be important that this is done in a coordinated way that relieves pressure on the historic urban fabric of the monument zones by lowering ground levels and improving drainage around the buildings. If this is not done, the buildings will continue to suffer from damp and decay leading to their eventual abandonment, failure and loss.

LOSS OF AND THREATS TO THE NATURAL ENVIRONMENTAL CONTEXT

Several of the sites are inscribed for their relationship to the natural environment, which provides their distinctive context. In most cases this relates to their hilltop or riverbank location, in rural or forest settings. The natural contexts within which these sites are situated are under threat jeopardising this aspect of OUV.

- The hilltop settings to three of the religious ensembles, Swayambhu, Pashupati and Changu Narayan, suffered minor landslides following the earthquake. This resulted in the collapse of several of the buildings within these ensembles, including the sattals of Swayambhu and Changu Narayan, which were important elements in the setting of these monument zones. Some of these appear to relate to erosion and deforestation (Pashupati and Changu Narayan), whereas others relate to intensive development on unstable ground (Swayambhu).
- Changu Narayan currently retains its rural hilltop setting, although the forest surrounding the hill has been substantially removed.
- The retaining walls built to stabilize the hill at Swayambhu have shown signs of failure due to the earthquake, resulting in collapse of the sattals and other structures above.
- If development continues to occur on unstable ground around the hilltop at Swayambhu, this may threaten the stability of the Stupa and the Shantipur Temple, as well as the other temples located around the edges of the hilltop.
 - Urbanisation and development continues to threaten some sites, in particular Pashupati and Swayambhu.

THREATS TO TRADITIONS, BELIEFS, LEGENDS, RITUALS AND FESTIVALS

Much of the significance of the temples is in their religious function. The beliefs, legends, rituals and festivals associated with the temples are important attributes of their OUV.

The traditional rituals and festivals associated with each of the religious monuments have generally continued with some adaptation to the changed conditions. Despite the damage to temples and shrines, daily offerings continue to be made and religious advice sought. Seasonal festivals have also continued with the clearing of rubble and the propping of damaged buildings along festival routes.

The impacts of the earthquake on traditions and customary practice include the following:

- The principal temples on each of the sites, with the exception of the temples in Hanuman Dhoka Durbar Square, are generally intact and fully functional.

- On the four primarily religious sites, most of the serious damage was to secondary temples. Even so, offerings continue to be made to linga and other sacred objects located at the centre of these shrines and temples.
- Generally, daily rituals and seasonal festivals have continued on all sites, including festivals and cultural routes that link the temples of the Kathmandu Valley with other temples in towns and cities across Nepal. The form of the festivals may have been adapted to take into consideration the safety of sites, but these adaptations are considered temporary.
- The impact of the earthquake on numbers of people participating in pilgrimages to the principal religious sites is unknown, although it is anticipated to have had some impact. This would also be considered temporary at this stage.
- It was noted that in Bhaktapur visitor numbers were about 25% of the usual at the time of year during which the mission took place (peak tourist season).
- There has been no perceived impact on the mix of Hindu, Buddhist and Tantric practices across the sites.
- If sites are closed or not reconstructed, practices may not continue at those sites.
- Due to heavy damage to Baudhanath temple, pilgrims are not in a position to conduct tradition circumambulation at the secondary level.

SUMMARY OF IMPACT ON ATTRIBUTES OF OUV

Overall it is undoubtedly the case that many of the key attributes of OUV have been severely damaged and some destroyed. However, there is a need to undertake a detailed analysis to assess the overall impact on OUV.

3.3 ISSUES RELATING TO EMERGENCY RESPONSE AND RECOVERY OF ATTRIBUTES AND OUTSTANDING UNIVERSAL VALUE

3.3.1 EMERGENCY RESPONSE

Emergency response included securing and stabilizing sites, and salvaging, inventorying, storing and protecting materials and artefacts from the sites. This process commenced almost immediately after the earthquake and is continuing. As there are insufficient covered areas adjacent the sites for dry storage of the materials, many have been stacked under tarpaulins until shelters can be constructed to protect them. It was noted that UNESCO has agreed to fund construction of suitable shelters. Materials that are regarded as less important or too heavy to move have been left in public areas.

Only rapid assessments of the damage to the monuments have been undertaken to date. More detailed damage assessments are yet to be undertaken. This work is to be contracted out to various consultants, with 40 architects and 25 engineers having been commissioned or in the process of being commissioned at the time of the mission.

Unstable structures have been shored up, although some of this work may need to be strengthened or redone considering the length of time that is likely to elapse between now and when permanent repairs can be undertaken. It was noted that timbers salvaged from the temples and other structures in the vicinity were used for the shoring. Those structures considered to be too unstable and unable to be repaired in situ have been demolished.

Temporary repairs have been undertaken on some sites to protect them from the monsoon rains. More permanent repairs will be undertaken once the necessary investigations have been completed to determine the most appropriate methods of repair to be used.

The loss of original or early fabric has had a considerable impact on the integrity of the various monument zones within the World Heritage property and their significant attributes. The way in which the structures are repaired or reconstructed will determine to what degree the authenticity of the property will be retained. It is acknowledged by the mission team that earthquakes are a regular occurrence in the Kathmandu Valley and that cyclical renewal of the structures should be considered as an authentic part of the process of the recovery for these sites. However, it was also noted that not all monuments were rebuilt following such events. Some took many years to rebuild, with some still undergoing that process following the 1934 earthquake at the time of the 2015 Gorkha earthquake. Others were replaced with new structures of different design (Refer to 3.2.4 below). The decision to rebuild was usually based on the relative importance of the monument to the local community and the availability of resources at the time. It will be important to identify the significance and history of each monument and to identify its important attributes and their relative contribution to maintaining the OUV of the property as a whole when considering reconstruction. If the rebuilt structures are to be considered as authentic in that they are seen to be continuing long standing traditions, it will be essential to ensure that the monuments are built using traditional craftspeople who are steeped in the building traditions of the area,

3.3.2 INVENTORIES

Due to the urgency to reopen some sites to the public so that daily rituals and seasonal festivals could continue, many sites, particularly those in Hanuman Dhoka Durbar Square, were cleared hurriedly. This resulted in many artefacts from the sites being mixed up during the salvage operations. Care will need to be taken in the sorting and inventorying of the artefacts prior to undertaking repair or otherwise of these structures.

A clearly laid-out and accessible database of the information gathered on each site still needs to be assembled. Baseline information should include location (GIS), brief description of damage, photographs, historical information and needs assessment to support restoration planning.

3.3.3 ISSUE OF HERITAGE EXPERTISE

Not all the consultants commissioned to carry out damage assessments and document repairs have heritage expertise or experience, training or even a good understanding of traditional seismic construction technologies as used in these structures. The lack of expertise threatens the authentic rehabilitation of the monuments within the World Heritage property (as discussed above). Thus the architects and engineers will need extensive guidance in assessing the damage, documenting and undertaking the works to ensure appropriate methodologies and materials are used to ensure retention of the integrity and authenticity of the sites.

Considering the magnitude of the task, although the DoA has a high level of archaeological expertise and experience, it has limited capacity in regard to engineering, architectural, planning or materials conservation expertise and experience. This is needed to provide adequate oversight, assess proposals, provide appropriate heritage advice as needed and monitor the work carried out by local and international architects, engineers, planners and conservators. Capacity development in this area will be critical.

3.3.4 ISSUE OF TRADITIONAL SKILLS AND KNOWLEDGE

There is a shortage of builders who have the necessary skills to undertake the high quality bricklaying and carpentry required for reconstruction. There is also a severe shortage of craftsmen, who not only have the skills to reproduce the timber and stone carvings and the metalwork to the quality for which the World

Heritage property was inscribed, but also the traditional knowledge required to know what sculptures should be placed where and in what form or pose on the structures to tell the stories associated with the gods and goddesses for which the temples were originally erected. This knowledge is passed down from one generation to another and takes considerable time and focus to learn. It is not learnt in a short-term training program, but rather through long-term apprenticeship and many years of experience working under a master craftsman.

Planning is required to ensure a sustainable future for master craftspeople, who can maintain and reconstruct the monuments of the world heritage property of the Kathmandu Valley and other heritage sites in Nepal. This will require appropriate and long-term training programs and provision of on-going work.

3.3.5 TENDERING PROCESSES

There is a risk that with the enormous extent of building work required to repair, restore or reconstruct monuments, and the sense of urgency to accomplish this task as soon as possible, that builders will be engaged who do not have the skills, knowledge or experience in traditional construction. It will be important that builders involved in tendering on the repair and reconstruction work should be able to demonstrate their expertise in the use of traditional building materials and construction technologies. The emphasis on building quality, rather than price and speed, will be very important to maintaining OUV.

3.3.6 ISSUE OF MATERIALS

There is a significant shortage of quality building timber in Nepal, particularly the Sal that was traditionally used in the construction of the buildings of the World Heritage sites of the Kathmandu Valley. Good management of the timber supply will be critical to repair and reconstruction works.

Timber shortage was also experienced following the 1934 earthquake, which also affected reconstruction in the monuments zones of the Kathmandu Valley. At that time, the timber shortage resulted in:

- many temples not being rebuilt,
- elements salvaged from several temples in some cases being combined to enable reconstruction of a single temple,
- some temples being reconstructed on a much smaller scale (e.g. reduced number of tiers), and
- some monuments being rebuilt in a totally different form from their tiered original, using different materials.

This resulted in considerable change to the sites compromising their integrity and authenticity at that time.

Long term planning is needed to provide sustainable sources of timber, not only for reconstruction following the recent 2015 earthquakes, but also in preparing for future earthquakes.

3.3.7 SAFETY ISSUE

Although some buildings have been closed to the public, others that are damaged have been reopened to enable daily rituals to continue and to facilitate tourist access. Although the buildings have been assessed as being structurally stable at this time, loose bricks at higher levels still pose a danger to people accessing the sites, particularly considering that subsequent earthquakes or tremors are still anticipated. Human safety must be a high consideration in the management of the sites.

3.3.8 BUILDING CONDITION

Many of the structures damaged by the earthquake were already in poor condition as a result of leaking roofs and poor drainage, with the brickwork suffering from rising damp and salt attack and the timber elements,

which are designed to provide the seismic strength of the buildings, also showing signs of decay (rot and insect infestation).

Plants (some perennial grasses, but others the size of small trees) were found to be growing in the roofs and walls of some of the buildings. Traditionally the roofs would be weeded before Daishan, but this year this does not appear to have been done. The team was informed that the people who used to do this work no longer want to do it as it is of low status.

The poor condition of the buildings and the lack of routine maintenance increases their risk of failure in future earthquakes and other hazards.

3.3.9 ROUTINE MAINTENANCE AND REPAIRS

The traditional guthi system of management, which operated prior to the transfer of the temples to the state, included provision for on-going maintenance of the temples. As part of this system land was usually gifted with the temples to provide a source of income to support their on-going needs, such as daily and weekly offerings, festivals, food and accommodation for the monks/priests, maintenance and repairs. The dismantling of the traditional guthi system and the loss of guthi lands has left the temples with few funds to manage and maintain the sites. The state has taken on some of this responsibility, but funds are extremely limited.

It is noted that the draft Conservation Guidelines prepared by DoA refer to cyclical renewal in association with maintenance. It should be recognised that systematic routine maintenance and ensuring a dry physical environment will extend the life of the structures considerably, reducing the need for such regular replacement of component elements.

3.3.10 URBAN INFRASTRUCTURE

Archaeological investigations at Kasthamandap in Hanuman Dhoka Durbar Square have revealed that ground levels have risen considerably (possibly as much as 2m) since the temple was originally built. In addition, ground-penetrating radar has indicated that many pipes under the Durbar Squares have been broken, most likely during the recent earthquakes. Potentially, the combination of rising ground levels, leaking pipes and poor drainage around the monuments will be contributing to rising damp and decay of the key structural elements of the monuments, compromising their long-term survival and their ability to withstand future earthquakes.

The historic houses located within the core monument zones and buffer zones are also suffering as a result of rising ground levels and poor drainage. The ground floor levels of the houses that would originally have been set well above ground level are now located well below the existing street levels, with the monsoon rains draining into them. The buildings are not only very difficult to access, but also extremely damp and difficult to maintain, and many are in poor condition, putting them at high risk of future failure and abandonment.

3.3.11 URBANISATION AND PRIVATELY OWNED HERITAGE

Urbanisation is continuing to threaten the integrity and authenticity of the core monument zones and the buffer zones. Controls to urban development in the monument zones and buffer zones do not appear to be enforced, with new buildings varying from the traditional buildings in their scale, form and use of materials, thereby altering the character of the significant urban settings to the monument zones. Earthquake damage to historic houses (many of which are currently propped to stabilise them) will contribute to increased pressure to replace traditional buildings with modern concrete structures that are considered by the general populace to be more earthquake resistant.

Lack of community awareness regarding traditional seismic design and the true causes of structural failure during the recent earthquakes (including poor condition resulting in decay of structural elements arising from urban pressure and lack of maintenance) will increase this pressure. Added to these issues are the existing issues arising from low ceiling heights and lack of basic modern services (making the buildings unattractive for occupation), on-going vertical subdivision of houses (making them too small to be functional) and multiple ownership issues (resulting in lack of use and maintenance).

3.3.12 IMPACT OF SOLAR STREET LIGHTING

Solar street lighting has recently been installed at many of the sites, particularly those located in urban areas. Although these lights provide safety and security, they detract visually from the sites and their sense of authenticity as significant heritage places. However, they do reduce the need for extensive, unsafe and unattractive electrical infrastructure throughout the monument zones.

3.3.13 POLITICAL SUPPORT

To date the political situation has prevented some decision-making in relation to recovery and reconstruction. As a result there is a delay in distribution of funds by the government to enable the necessary response. With the recent selection of a new Prime Minister, deputies and ministers, it is hoped that this situation may soon be resolved.

The border issue between Nepal and India has further hampered response and recovery efforts, particularly as it has created serious fuel and material shortages.

3.4 POSITIVE AND NEGATIVE DEVELOPMENTS IN THE CONSERVATION OF THE PROPERTY SINCE THE LAST REPORT TO THE WORLD HERITAGE COMMITTEE

3.4.1 POSITIVE DEVELOPMENTS

The mission team acknowledge the following positive developments in the conservation of the property since the last report to the World Heritage Committee:

- There has been an effective emergency response to the earthquake at all the monument zones, which has included securing and stabilizing the damaged structures; salvaging the most important elements from those structures as far as possible, cleaning, inventorying and storing them.
- Collections have also been salvaged, and are in the process of being cleaned, inventoried and stored.
- Many sites have been reopened to public.
- Daily rituals and seasonal festivals have been able to continue at most sites.
- Interpretive signage has been erected for visitors to show what the sites were like prior to the earthquake and to give some sense of the cyclical nature of earthquakes in the Kathmandu Valley.
- ERCO was established by UNESCO Kathmandu and DoA soon after the earthquake to coordinate the emergency response.
- An expert advisory body was formed to address conservation issues.
- Conservation guidelines are currently being prepared and were viewed in draft form by the mission team.
- The national policy for the earthquake response contains reference to the heritage in the recovery and sets priorities for reconstruction.

- Rapid assessments of the damage at the various sites have been undertaken by UNESCO and DoA staff. These include brief reports on the geological conditions and an historical briefing document, which gives a background to the monuments most affected.
- Some archaeological investigations have been undertaken to establish archaeological risk maps of the Durbar Squares and to understand the foundation conditions of the monuments that have collapsed.
- Consultants have been recruited to prepare drawings of the monuments, undertake more detailed damage assessments and to document repairs
- 40 new architects and 25 engineers have been or were in the process of being appointed.

3.4.2 NEGATIVE DEVELOPMENTS

The mission team note the following negative developments in the conservation of the property since the last report to the World Heritage Committee:

- Some sites are moving ahead in their repair and reconstruction without adequate prioritization, reconstruction guidelines or recovery planning being in place and without appropriate consultation with DoA, or with the Advisory Bodies or the World Heritage Committee. Where the damage is minor, this is not so important, although repairs may be carried out without the proper oversight and guidance of the DoA.
- In Hanuman Dhoka Durbar Square some market stalls have moved onto the damaged temple bases at night dislodging stones and bricks.
- Whilst the reopening of sites to the public has been a positive development, the safety of visitors has not been sufficiently addressed in some places. People are occupying or using areas around structures that are not stable and could potentially fail causing injury.
- Engagement of architects, engineers and building contractors without appropriate knowledge in traditional Newari construction and limited understanding of heritage conservation principles, which are important to maintaining OUV, integrity and authenticity, will potentially result in simplistic and inexpert analysis being undertaken and poor decisions being made in relation to the repair and reconstruction of the monuments, leading to detrimental and irreversible interventions and changes being made.

4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

4.1 ARE OUTSTANDING UNIVERSAL VALUE AND INTEGRITY MAINTAINED?

The World Heritage property of the Kathmandu Valley has suffered greatly from the earthquake. Although the extent of loss varies from monument zone to monument zone, with the full extent yet to be fully assessed. It should be noted, however, that despite the losses, the majority of monuments within the monument zones remain standing and the monument ensembles continue to provide testimony to the OUV for which the property was inscribed. Key attributes, although eroded by the disaster, generally continue to support the OUV of the property. .

In summary:

- Examples of the high levels of craftsmanship in brick, stone, timber and bronze survive in many remaining structures.
- The coexistence of Hinduism, Buddhism and Tantrism also remains clearly evident.
- Although many temples suffered severe damage or collapse, with the exception of the large domed temple on the hill at Pashupati, numerous examples of the various architectural attributes still remain standing. The taller tiered temples appear to have suffered the greatest damage, although nearly all attributes have been affected to some extent.
- The palace ensemble in Hanuman Dhoka has suffered considerable damage, but at this stage, with the exception of the nine-storey palace, generally remains standing. Some towers and walls have collapsed and others will require substantial rebuilding to make them stable. The palaces at Patan and Bhaktapur have suffered far less damage.
- Although many structures have collapsed, the carved and ornamented elements that manifest the symbolic and artistic values for which the places are inscribed on the World Heritage list have been salvaged and may be reinstalled when the buildings are rebuilt. They are currently being inventoried and stored.
- The three urban monument zones have had their integrity impacted through the loss of some of their principal monuments, with Hanuman Dhoka Durbar Square being the most affected. However, the significant structure and layout of the urban precincts, including their durbar squares, remain intact. The immense stepped masonry bases of the collapsed structures continue to stand as substantial place markers within the squares.
- Among the four religious ensembles, the principal temples and stupas remain standing. Changu Narayan has lost its surrounding sattals, impacting its integrity and setting. Swayambhu has also lost many of its surrounding buildings, although some of these were more recent additions to the hilltop and were encroaching on the historic setting of the stupa. The top portion of the Bauddanath stupa above the dome was severely affected.
- The rituals and festivals associated with each of the sites have revitalized, despite the loss of the structures that housed various linga, sacred places or objects. Thus the social and spiritual values associated with each of the sites have been maintained.

It is acknowledged that earthquakes are a regular occurrence in Nepal, occurring every 80 to 100 years in the Kathmandu Valley. Historically, the damaged structures have been rebuilt after each earthquake, with replacement of the damaged elements with new. This practice of 'cyclical renewal' of the structures has sustained the heritage of the Kathmandu Valley over the centuries. Even though some structures have not been rebuilt after previous earthquakes and others have been replaced with new structures, the significance of the property has generally been maintained over the centuries.

The process of reconstruction has the potential to sustain the high levels of traditional craftsmanship that are required to create and maintain the structures of the Kathmandu Valley. Although the number of craftsmen with the required knowledge for reconstruction is currently few, the process of reconstruction will enable this knowledge, which contributes to the OUV of the property, to be passed on to another generation.

Regardless of the impact of the earthquake, nearly all the monument zones continue to be vulnerable to urban pressure and encroaching and uncontrolled urban development. This has been previously addressed in the IMP.

Many traditional houses within the monument zones have suffered damage from the earthquake and are highly vulnerable due to their condition; some have been completely destroyed. The application of new building codes and economic pressure, will place them at high risk of replacement with modern structures. This will impact the integrity and authenticity of the property.

A carefully designed recovery scheme could help to restore the attributes affected by the earthquake, thereby reducing the impacts on integrity and authenticity.

4.2 FOLLOW-UP MEASURES

4.2.1 MEASURES TO PREVIOUS DECISIONS OF THE WORLD HERITAGE COMMITTEE ON THE STATE OF CONSERVATION OF THE PROPERTY

This mission did not review any of the previous decisions and measures taken by the State Party. However with regard to the last decision (**39COM.7B.69**) the State party invited the WHC, ICOMOS and ICCROM on a joint mission to assess the state of conservation and to review the emergency action plan/activities.

- As reported to the Committee, practical emergency response training was provided by UNESCO, ICCROM, ICOMOS-ICORP, ICOM and the Smithsonian Institute to DoA staff and other Nepali professionals shortly after the earthquake (within 2 months), through the program, 'First Aid for Nepal's Cultural Heritage for Recovery and Reconstruction'. The skills developed have enabled the DoA staff and others to undertake salvage and stabilization works in relation to the World Heritage property and other affected heritage sites around Nepal. Training was also provided to army and police officers, who assisted in emergency response and salvaged the museum collections from dangerous parts of the Hanuman Dhoka Palace. The inventorying of items salvaged is ongoing. Follow up training is anticipated by DoA staff to further develop these skills and prepare a manual that can be used by staff.
- Although the need for a disaster risk management (DRM) plan for the property is highlighted in the IMP, this had not been undertaken prior to the earthquake. DRM Planning needs to be developed and implemented across all sites, particularly considering their increased vulnerability at this time.
- The IMP, which is the guiding document for management of the world heritage sites, was reviewed just prior to the earthquake. This must now be reviewed again in light of the recent events to address the current state of conservation of the sites, and the current and future issues and needs arising.
- The Plan of Action must also be reviewed to address the immediate, short and medium term tasks required for recovery.

4.2.2 MEASURES WHICH THE STATE PARTY PLANS TO TAKE TO PROTECT THE OUTSTANDING UNIVERSAL VALUE OF THE PROPERTY

The following measures are proposed by DoA to protect the OUV of the property. These measures are identified in the documents provided and presentations made by the DoA to the mission team.

- Ongoing salvage of artefacts and materials, sorting, inventorying and providing safe storage.
- Detailed damage assessments of damaged monuments.
- Investigation of causes of failure and to find the most appropriate solutions for rebuilding that respect and support the OUV of the property, and the integrity and authenticity of the fabric and the place.
- Upgrade of stabilization works to monuments that will not be able to be repaired immediately.
- Repair of all damaged monuments, beginning with those at greatest risk of further failure.
- Recruitment of multidisciplinary professionals as necessary to fill gaps in knowledge and expertise and to assist with necessary research, documentation, conservation and rebuilding tasks.
- Finalization of conservation guidelines for those working on repair and conservation works to the monuments.
- Identification of suitable master craftsmen who can undertake the task of rebuilding, and facilitation of appropriate training for other craftsmen under their tutelage, to develop the needed knowledge and skills.
- Securing supply of suitable materials for rebuilding. This includes timber, which is known to be in very short supply and difficult to get, and bricks of suitable quality.
- Development of site specific recovery master plans and overall recovery master plan for the property.
- Coordination of the work with different agencies including foreign donors.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The World Heritage property of the Kathmandu Valley has suffered greatly from the earthquake and the damage to attributes has placed the OUV of the property at risk. The extent of loss varies from monument zone to monument zone. It should be noted, however, that despite the losses, the majority of monuments remain standing. Thus, the monument ensembles, both urban and religious, continue to provide a testament to the OUV for which the property was inscribed on the World Heritage List. Examples of the various building typologies (including tiered temples, domed stupas, palaces, sattals rest houses, houses and other vernacular urban architecture), urban structures (including durbar squares, public spaces and street patterns), and high levels of craftsmanship in brick, stone, timber and bronze survive in many remaining structures, customary rituals and practices continue, and the coexistence of Hinduism, Buddhism and Tantrism remain clearly evident.

Although many temples suffered severe damage or collapse, with the exception of the large-domed temple on the hill at Pashupati, numerous examples of the various architectural types still remain standing. The taller tiered temples appear to have suffered the greatest damage, although nearly all types have been affected to some extent. The palace ensemble in Hanuman Dhoka has suffered considerable damage, but at this stage, generally remains standing. Some towers, including the nine storey palace, and some walls have collapsed and others will require substantial rebuilding to make them stable. The palaces at Patan and Bhaktapur have suffered far less damage. Although many structures have collapsed, many of the carved and ornamented elements that manifest the high level of craftsmanship and symbolic and artistic values for which the places are inscribed on the World Heritage list have been salvaged and may be reinstalled when the buildings are rebuilt. They are currently being inventoried and stored.

The integrity of the three urban precincts had their integrity impacted through the loss of some of their monuments, with Hanuman Dhoka Durbar Square Monument Zone being the most affected, with several of its large temples having been destroyed. However, the significant structure and layout of the urban precincts, including their durbar squares, remain intact. The immense stepped masonry bases of the collapsed structures continue to stand as substantial place markers within the squares.

Among the four religious ensembles, the principal temples and stupas generally remain standing, However, the integrity of the groups has been impacted as follows:

- Changuarayan was affected by the collapse of some smaller temples and its surrounding sattals.
- Pashupati was affected through damage to some of its outer temples.
- Swayambhu also suffered damage to smaller temples and lost many of its surrounding buildings, although some of these were more recent additions to the hilltop and were encroaching on the historic setting of the stupa.
- The top portion (above the dome) of the Boudhanath stupa has severely affected.

Despite the damage, the daily rituals and seasonal festivals associated with the monuments zones have been continued. Thus, the social and spiritual values associated with each of the zones have been maintained.

Many traditional houses and other vernacular buildings located within the monument zones suffered damage from the earthquake and are highly vulnerable. Due to their condition, the implementation of new building codes and economic pressures place them at risk of replacement with modern structures, which would impact the integrity and authenticity of the monument zones. The traditional buildings located within the buffer zones, and which contribute to the significant settings of the monument zones, are similarly affected.

It is acknowledged that earthquakes are a regular occurrence in Nepal, occurring every 80 to 100 years in the Kathmandu Valley. Historically, many of the damaged structures have been rebuilt after each earthquake, with replacement of the damaged elements with new. This traditional practice of ‘cyclical renewal’ of the structures has sustained the heritage of the Kathmandu Valley over the centuries. Even though some structures have not been rebuilt after previous earthquakes and others have been replaced with new structures, the significance of the property has generally been maintained over time.

In June 2015, the World Heritage Committee discussed the possible inscription the property on the List of World Heritage in Danger at its 39th session and decided against it at the state party’s request. This mission was undertaken to review the state of conservation of the property, the emergency measures undertaken by the Government of Nepal, in collaboration with donor and other partners from the international community, to mitigate the threats to the property, and the development of an Emergency Action Plan. In recognition of the efforts being made by the Government of Nepal the mission is of the view that more time is required to demonstrate the State Party’s capacity to mitigate the threats to the property caused by the natural disaster. If they persist, these threats would represent a clear ascertained danger to the property’s OUV in line Paragraph 179 of the Operational Guidelines.

Despite the extent of damage, a carefully designed and implemented recovery scheme could help to restore the affected attributes, thereby reducing the impacts on their integrity and authenticity. The process of reconstruction has the potential to sustain the high levels of traditional craftsmanship that are required to create and maintain the structures of the Kathmandu Valley. Although the number of craftsmen with the required knowledge for reconstruction is currently low, the process of reconstruction will enable this knowledge, which contributes to the OUV of the World Heritage property, to be passed on to another generation.

5.2 RECOMMENDATIONS

The Mission team makes the following recommendations for additional actions to be taken by the state party:

5.2.1 COORDINATION

- Coordinate, consult and collaborate with national and local authorities, Site Managers, relevant community groups and other stakeholders to seek recovery, reconstruction and redevelopment solutions that respect and prioritise the maintenance and recovery of the OUV of the World Heritage property. This process must be based on a clear understanding by all parties of the following:
 - What constitutes the OUV for which the World Heritage property of the Kathmandu Valley was inscribed;
 - What are the specific attributes (tangible and intangible) within each of the seven monument zones that contribute to the OUV, including:
 - monuments,
 - public spaces,
 - collections,
 - cultural practices,
 - meanings,
 - cultural and/or spiritual associations and
 - the setting (urban and/or natural) of each element.

All of these elements make an important contribution to maintaining the OUV of the World Heritage property as a whole.

- Appropriately address Infrastructure and town planning issues within the property and buffer zones that may have an impact on the OUV.

- Coordinate with local authorities to develop and implement a community awareness programme, which shall provide relevant information regarding traditional seismic construction, reasons for failure, and the importance of routine maintenance in keeping buildings in good condition. This may require coordination with National Steering Committee to address building code issues and failure of modern construction technologies as well.
- Develop a support program (information and funding) for private owners of heritage properties located within the property and buffer zones to promote rehabilitation of traditional buildings in these zones.
- Engage with local community groups, including traditional *Guthis*, to facilitate appropriate use, management and maintenance of the sites in accordance with maintaining the OUV of the property. Develop a centralised and easily accessible database of information gathered by all those undertaking assessment of the monuments and repair works to enable knowledge sharing and to ensure that duplication of tasks is minimized.

5.2.2 EMERGENCY RESPONSE WORK

- Continue the inventory process and the collection of comprehensive information on the damaged structures and objects/ building components recovered.
- Stabilize the remaining structures and ensure protection of people and visitors at sites open to the public.
- Provide security and weather protection to materials collected and stored outside.
- Where necessary, rearrange or reorganize traffic to ensure the safety of damaged monuments.
- Undertake further detailed mapping and recording of damaged structures.
- Prepare detailed condition assessment reports for each structure, including detailed assessment of the site's condition, the potential causes for the failure of building elements, and an evaluation of the effectiveness of previous conservation works.

5.2.3 RECOVERY MASTER PLAN

- As a matter of urgency, prepare, update and elaborate lists of attributes for each of the seven monument zones based on the Statement of Outstanding Universal Values adopted by the Committee. The list also should include attributes that carry other national and local values, both tangible and intangible. Include clear descriptions of the following:
 - Important architectural typologies that exist within the monument zones and their key characteristics – palaces, temples, stupas, step wells, other monuments, vernacular architecture (sattals, rest houses, shop houses, etc) – built form, scale, materials, characteristic features, symmetry/geometry, traditional anti-seismic construction technologies, important building elements that demonstrate high levels of craftsmanship;
 - Important characteristics of the traditional urban settlements, including public spaces, street and laneway layouts, block sizes, vernacular architectural typologies, relationships to the street, scale, materials, rhythms, etc;
 - Important contribution that the vernacular architecture makes to providing the distinctive urban setting of each of the monument zones;
 - Important landscape features and their contribution to the distinctive setting to the monument zones, including important views;
 - Important spiritual values, meanings, associations, rituals, customary practices, legends and festivals associated with the site and important connections to other sites;
 - Important artworks on buildings;
 - Important collections housed at the sites;

- Important contribution that the buffer zones make to providing an appropriate and authentic setting to the World Heritage property, and thus in maintaining OUV—include traditional building typologies, scale, built form, materials, traditional details (windows, doors, roof, walls, etc.)
- Identify the degree of damage or loss of OUV within each monument zone and identify what can and cannot be restored whilst still maintaining OUV, integrity and authenticity.
- Use the statements of OUV to establish priorities and guide decision making in relation to reconstruction and recovery of the World Heritage property.
- Based on the work already carried out, complete the development of the Recovery Master Plan (RMP) for the World Heritage property as a whole, as well as each of the seven monument zones. The RMPs should have a clear and detailed vision of what is to be achieved in terms of whether and how monuments and vernacular buildings are to be restored or rebuilt and the basis and justification for this work, in terms of what has survived and documentary and other evidence;
- Set out an overall approach to recovery that reflects the specific attributes of OUV of the World Heritage property, as well as local and national values, including the importance of the monuments to daily life and requirements for rituals and customary practices. This should lead to the development of specific objectives and actions.
- Based on the work already carried out, develop relevant action plans, which establish clear priorities, criteria for consolidation, restoration and/or reconstruction and realistic timeframes.
- In order to ensure authenticity of reconstructed monuments, an adequate community of traditional craftspeople will be needed, and architects and engineers will need extensive guidance in assessing the damage, documenting and undertaking the works to ensure appropriate methodologies and materials are used to ensure retention of the integrity and authenticity of the sites.
- Link the RMPs to larger national disaster management plans and to the area development plans/strategies
- Include in the RMPs opportunities for social development and engagement of communities and other stakeholders within both the World Heritage Property and its buffer zone.
- Investigate potential risks from further earthquakes and other hazards (both natural and human), and prepare and implement appropriate disaster risk management plans (DRMP) for the monument zones and individual sites.

5.2.4 MANAGEMENT STRUCTURES

- Strengthen the overall coordination mechanism with all institutions and management authorities, and identify the roles of respective agencies.
- Use the statements of OUV to guide discussion with the various authorities responsible for recovery of the city and its infrastructure within or in close proximity to the World Heritage property, and property managers and stakeholder groups responsible for recovery and management of activities within the monument zones.
- Develop a strategy for managing foreign input to ensure that it responds to the needs and priorities identified by DoA. A process of review needs to be put in place to ensure transparency and accountability in relation to the works carried out, expertise and methodologies used, and resourcing (funds, materials, manpower).
- Establish Steering Committees as foreseen by the authorities to facilitate planning processes and coordination of work on each site.
- Revitalise all forms of traditional knowledge and management systems (eg. Guthi), as appropriate and applicable to each site to help the recovery process.

5.2.5 CONSERVATION POLICIES/GUIDELINES

- Review the IMP for the World Heritage property taking into consideration the damage caused by the earthquakes, its impact on the OUV of the World Heritage property and the need for recovery. The IMP should address reconstruction issues and determine the approach that should be adopted for those assets that cannot be rebuilt as before.
- Based on the work already carried out (including preparation of the draft conservation guidelines), finalize the overall conservation principles, approaches, policies, guidelines and procedures to help recover the monuments and sites, with an emphasis on sustaining or recovering the OUV of the property, including integrity and authenticity.
- In finalizing the IMP and conservation principles, use the existing experience within the country and work with an international team of peers as agreed by the DoA.
- Include statements of OUV for each of the monument zones and buffer zones in all documents designed to guide the recovery of the World Heritage property in those zones.
- Assess the potential impacts of proposed interventions, reconstruction or new works on the OUV of the World Heritage property and develop mitigation strategies to reduce impacts on the significant fabric and OUV of the property.

5.2.6 PLANNING FOR ONGOING CARE AND DEVELOPMENT

- Review the Integrated Management Plan (IMP) for the World Heritage property, taking into consideration the damage caused by the earthquakes, their impact on the OUV of the World Heritage property and the need for recovery.
- Prepare routine maintenance plans, which clearly set out tasks (and identify the purpose of each task), responsibilities, methods to be employed and periodic timeframes for the various buildings and sites. Routine maintenance procedures must then be implemented to minimize further deterioration and to maintain the sites in good condition.
- Regarding the Recovery Master Plan (RMP) mentioned above, for the property and for each of the monument zones, including their significant settings (provided by the buffer zones), provide a forward-looking framework for the management of ongoing conservation and development within the monument zones and their buffer zones. The RMPs should clearly elaborate the attributes carrying the OUV of each of the monument zones, the extent of loss (physical loss and loss of values) and potential for recovery (or absence thereof), and provide an overview of policies and guidelines for future conservation, reconstruction, adaptation and development within the monument zones and their buffer zones. They should clearly identify where development may and may not occur, its type, scale, form, materials and fit within the urban or natural context. The RMPs should be prepared relatively quickly so as not to hold up housing and other essential development projects within the property.
- Specific conservation policies should be developed separately for each of the monuments and urban areas within the monument zones as required.
- Systems to control development should be created and implemented by the DoA and the local authorities to protect the monument zones' significant settings. These control systems should include allowed materials, heights, forms and types of development, and should also apply to the buffer zones.

5.2.7 CAPACITY DEVELOPMENT

- With the assistance of the small number of highly skilled master craftspeople, develop a capacity-building programme to train more craftspeople, using the fieldwork opportunities provided during

the restoration of the structures. This should include a scheme to consider long-term sustainability through the provision of reasonable remuneration and long-term employment.

- Develop, as a matter of urgency, an Action Plan to provide basic heritage training for newly-recruited professional staff (particularly architects and engineers). This training may be developed in collaboration with an international team of peers and should cover:
 - knowledge of traditional design and construction technologies used in the buildings of the world heritage property of the Kathmandu Valley;
 - heritage conservation principles and how they are applied to the recovery of the World Heritage property;
 - appropriate research methods, documentation, analysis and the conservation of surviving artefacts.

5.2.8 SUSTAINABLE SUPPLY OF MATERIALS

- Develop an Action Plan to secure a steady supply of suitable materials for rebuilding, including timber (which is known to be in very short supply and difficult to get), and bricks of suitable quality.
- Consult the national authorities regarding the establishment of a long-term supply of appropriate construction timber for the ongoing conservation and future repairs to monuments. Additionally, investigate planning opportunities to address such materials shortages resulting from similar earthquake or other disaster events in the future.
 - Investigate opportunities for the establishment of a suitable forestry program that would provide the types and quality of timber required for future repair and reconstruction work within the World Heritage property.
 - Investigate the possible establishment of brick factories that would produce the quality and type of bricks required for conservation and reconstruction works on World Heritage property.

5.2.9 SOCIAL PROGRAMME FOR THE REVITALISATION OF MONUMENTS AND TRADITIONAL HOUSING

- Develop an information programme for those who need to rebuild or repair their properties on the importance of historic buildings to the OUV of the World Heritage property and their significant characteristics that contribute to the integrity and authenticity of the property.
- Include information on traditional seismic design and the importance of routine or periodic maintenance to keep buildings in good condition, emphasizing the importance of these techniques to ensure the building's resilience to earthquakes.
- Encourage and negotiate funds from donors, not only for major monuments but also for the revitalisation of community life and houses, and to encourage community engagement in the recovery process.
- Investigate opportunities for providing financial and technical assistance to homeowners who need to rehabilitate their houses located within the monument zones and buffer zones, in order to enable them to rebuild using traditional materials and methods.

5.2.10 ENGAGEMENT OF TOURISTS

- Develop a visitor management strategy with interpretation opportunities highlighting the value and importance of traditional buildings (including seismic design) as well as the development history of the monument zones (including changes over time due to earthquakes).
- Enable tourists to view the reconstruction process, to watch craftsmen working, and to learn from the archaeological investigations carried out. This will require good tourist management through the provision of safe access to sites and appropriate safety measures for the sites and those working on them.

5.2.11 RECOMMENDATION WITH REGARD TO PARAGRAPH 179 OF THE OPERATIONAL GUIDELINES

- The mission is aware that, while a proposal was made by the Advisory Bodies and the World Heritage Centre at the 39th Session of the World Heritage Committee (Bonn, July 2015) to place the property on the List of World Heritage in Danger, this was not accepted at the time. The Mission continues to support the position of the Advisory Bodies and the World Heritage Centre and is of the view that the property can be placed on List of World Heritage in Danger in accordance with Paragraph 179 of the *Operational Guidelines for the Implementation of the World Heritage Convention*. Taking into consideration the impacts of the earthquake disaster on the OUV of the Kathmandu Valley, including its impact on the property's authenticity and integrity, the mission further considers that the property might potentially face serious deterioration of its architectural and town-planning coherence, of urban or rural spaces; the serious loss of historical authenticity; and an important loss of cultural significance. The mission is of the view that inscribing the property on the List of World Heritage in Danger and implementing comprehensive mitigation measures in collaboration with key national and international stakeholders holds the best prospect for overcoming the current threats.
- As the Mission was concluded only four months after the 39th session, and in recognition of the efforts being made by the Government of Nepal, the Mission is of the view that more time is required to demonstrate the State Party's capacity to mitigate the threats to the property caused by the natural disaster. If these threats persist, they clearly represent both ascertained and potential danger to the property's OUV, in line Paragraph 179 of the Operational Guidelines. In this context, the Committee may also wish to reconsider whether to inscribe the property on the List of World Heritage in Danger at its 41st session in 2017, after a further mission has helped to define corrective measures and to ascertain the progress accomplished by the State Party.

5.2.12 INTERNATIONAL TECHNICAL SUPPORT

- Technical training and support should be provided by ICOMOS, WHC and ICRROM to assist the DoA in undertaking the enormous task of recovery of the World Heritage property. This support may include the following:
 - Development and provision of a cultural heritage training programme for professionals (especially engineers and architects) involved in the recovery and reconstruction works. This training should enhance the capacities of professionals with regard to their knowledge of traditional design and construction technologies used in the Kathmandu Valley, their understanding of heritage conservation principles, and how these apply to the recovery of the World Heritage property.
 - Provision of expert heritage advice in regards to the development of reconstruction principles.
 - Provision of technical expertise in relation to detailed damage assessments of structures and their physical contexts, and appropriate options for interventions or remediation.
 - Provision of assistance in development of community engagement programmes to promote appropriate repairs and maintenance of traditional houses by homeowners.
 - Capacity development in the development of long-term and economically sustainable programmes linking craftsmanship skills, development, property management and tourism opportunities.

ANNEXES

Annex 1:	World Heritage Committee Decision 39COM 7B.69 (Bonn, 2015)
Annex 2:	Terms of Reference
Annex 3:	Mission Agenda as conducted
Annex 4:	People met during the Mission
Annex 5:	Adopted Retrospective Statement of Outstanding Universal Value, 2012
Annex 6:	Boundary Map of the Kathmandu Valley in 1979, 2006
Annex 7:	Photographs from the Mission, October–November, 2015
Annex 8:	Preliminary List of Collapsed and Partially Damaged Monuments Owing to Earthquake on 25th April 2015 (2072/1/12)
Annex 9:	Draft Six-year Overview Rehabilitation Action Plan

ANNEX 1:

Decision adopted by the World Heritage Committee at its 39th session (Bonn, 2015)

Kathmandu Valley (Nepal, C 121 bis)

Decision: 39 COM 7B.69

The World Heritage Committee,

1. Having examined Document WHC-15/39.COM/7B.Add,
2. Recalling Decision **37 COM 7B.65**, adopted at its 37th session (Phnom Penh, 2013),
3. Expresses its profound sympathy and deepest condolences to the State Party of Nepal for the tragic loss of life and damage caused to the property, following the devastating earthquake of 25 April 2015;
4. Takes note of the information provided by the State Party, the World Heritage Centre and the Advisory Bodies concerning the actions undertaken in response to the devastating earthquake and acknowledges the efforts made by the Department of Archaeology of Nepal to ensure the safeguarding of the property in spite of the difficulties being experienced;
5. Considers that the extensive damage of the earthquake to the property represents both ascertained and potential danger, in accordance with paragraphs 177 to 179 of the *Operational Guidelines*;
6. Requests the State Party to invite a joint World Heritage Centre/ICOMOS/ICCROM Reactive Monitoring mission at an appropriate time, and by **1 December 2015**, to consider the state of conservation of the property and the further development of the emergency action plan;
7. Calls upon the international community to provide financial and technical support to the State Party of Nepal in protecting, conserving and restoring the World Heritage property of Kathmandu Valley following the earthquake;
8. Also requests the State Party to submit to the World Heritage Centre, by **1 February 2016**, an updated report, including a 1-page executive summary, on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 40th session in 2016.

ANNEX 2

Terms of Reference for a Joint World Heritage Centre/ICOMOS/ ICCROM

Reactive Monitoring Mission to Kathmandu Valley (Nepal)

27 October - 2 November 2015

In accordance with **Decision 39 COM 7B.69** (Annex 1) made by World Heritage Committee at its 39th session (Bonn, June 2015) regarding the state of conservation of the World Heritage property of Kathmandu Valley in Nepal, the joint World Heritage Centre /ICOMOS/ICCROM Reactive Monitoring Mission will assess the impact on Outstanding Universal Value (OUV) of the property from the damages caused to the historical structures of the Durbar Squares of Patan, Hanuman Dhoka (Kathmandu) and Bhaktapur temples as well as other cultural heritage sites in the seven monument zones that have been severely affected by the devastating earthquake that struck Nepal in April 2015, and make recommendations on tasks listed below:

The Mission should carry out the following tasks:

- Assess the current state of conservation in relation to ongoing rescue operations being carried out by the State Party with the support of other donors in accordance with the provisions of paragraphs 177-179 of the *Operational Guidelines* for the implementation of the *World Heritage Convention*.
- Assess progress with **Emergency responses** to the Earthquake disaster, carried out/ being carried out by the Department of Archaeology with the support of various donors and agencies, including immediate and urgent mitigation measures relating to cultural heritage, such as sifting and securing rubble of archaeological value, the protection of remains, and the compilation of inventories and condition reports for damaged property in order to establish a baseline information for each site, as envisaged in the Post Disaster Needs Assessment (PDNA) prepared by the Government of Nepal, and including the re-building of the capacity of management authorities;
- Assess progress made with planning for restoration and re-building in the short medium and longer term, through:
 - The establishment of a proper structure (such as a **Steering Committee**) to oversee the emergency actions to address the threats and to define mitigation measures and the possible desired state of conservation of the property;
 - The development of a specific **Recovery Master Plan** for the World Heritage property (part of the Master Plan envisaged in the PDNA) based on a phased approach for immediate, mid-term and long-term projects linked to other economic and social initiatives and the tourism economy, that sets out realistic timeframes, the organisations involved, whether and how the private sector is involved, and the involvement of local communities;

- The development, before work is undertaken, of defined **Conservation Approaches** to restoration and re-building in relation to sustaining OUV, and which include specific guidelines for all re-building work, how work might incorporate measures to make structures more resilient to earthquakes while respecting authenticity, and measures for documentation and recording;
- Whether the engagement of national highly competent professionals and skilled traditional craftspeople can cope with extraordinary demands now being placed on them or whether additional support/capacity building is needed.;
- How sustainable supplies of necessary materials for restoration and rebuilding projects can be assured;
- How the restoration projects might contribute to the revitalization of local communities and how tourists might be engaged in understanding the skills and work involved for restoration;

The mission team should be able to conduct necessary field visits to the property to make these assessments, and in particular visit areas severely affected. The mission team should also hold consultations with the Nepali authorities at national and local levels, in particular the site management authorities as well as other relevant stakeholders.

- On the basis of the foregoing findings and in close cooperation with Department of Archaeology, Nepal and the related stakeholders, make recommendations to the Government of Nepal concerning the actions undertaken in response to the devastating earthquake to ensure the safeguarding of the property in spite of the difficulties being experienced;
- Prepare a joint report incorporating the above findings and recommendations of the Reactive Monitoring Mission for review by the World Heritage Committee at its 40th session. The report should follow the attached format and should be submitted to the UNESCO World Heritage Centre, ICOMOS and ICCROM Headquarters by 1 February 2016 at the latest in hard copy and an electronic version.

ANNEX 3

Mission programme to the Kathmandu Valley (Nepal)

27 October – 2 November 2015

Mission Members

Mr Feng Jing

Chief, Asia and the Pacific Unit, UNESCO World Heritage Centre, UNESCO WHC (Paris)

Mr Gamini Wijesuriya

Project Manager, Sites unit, ICCROM (Rome)

Mrs Catherine Forbes

ICOMOS International (Paris)

Final Agenda

Tuesday, 27 October 2015

Time	Programme	Remarks
9:30 – 10:30	Meeting at UNESCO Office in Kathmandu	Venue: UNESCO meeting hall
10:30 – 11:00	Transfer to DoA	UNESCO car
11:00 – 13:00	Meeting with Mr Bhesh Narayan Dahal, Director General, Department of Archaeology(DoA) and related staff <ul style="list-style-type: none">- Introduction- Objective by mission team- Briefing by DoA and discussion on pertinent issues	Venue: DoA Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT
13:00 – 14:00	Lunch break	
14:00 – 14:30	Transfer to Hanumandhoka Durbar Square monument	UNESCO and DoA vehicles

Time	Programme	Remarks
	zone	
14:30 – 17:00	Meeting with Ms Saraswati Singh, Executive Chief, Hanumandhoka Durbar Square Museum Development Committee and Kathmandu Metropolitan City staff <ul style="list-style-type: none"> - Introduction - Briefing by Museum Office - Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, KMC staff from its Heritage Division and Hanumandhoka Durbar Square Conservation Programme Office
17:00 – 17:30	Departure Hanumandhoka and transfer to hotel	

Wednesday, 28 October 2015

Time	Programme	Remarks
9:30 – 10:30	Departure hotel and transfer to Changu Narayan monument zone	UNESCO and DoA vehicles
10:30 – 12:30	Meeting with Mr Prahlad Pokharel, Executive Chief, Changu Narayan Municipality <ul style="list-style-type: none"> - Introduction - Briefing by Municipality and/or DoA site office, Bhaktapur - Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, Changu Narayan Municipality, DoA Site Office, Bhaktapur
12:30 – 13:00	Transfer to Bhaktapur	UNESCO and DoA vehicles
13:00 – 14:00	Lunch break	
14:30 – 17:00	Meeting with Mr Uddav Prasad Risal, Executive Chief, Bhaktapur Municipality <ul style="list-style-type: none"> - Introduction - Briefing by Municipality and DoA site office, Bhaktapur - Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, Bhaktapur Municipality, DoA Site Office, Bhaktapur
17:00 – 17:45	Departure Bhaktapur and transfer to hotel	

Thursday, 29 October 2015

Time	Programme	Remarks
9:30 – 10:30	Departure hotel and transfer to Patan monument zone	UNESCO and DoA vehicles
10:30 – 12:30	Meeting with Mr Bharatmani Pandey, Executive Chief, Lalitpur Sub-metropolitan City Office <ul style="list-style-type: none"> - Introduction - Briefing by Municipality and/or DoA site office, Bhaktapur - Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, Lalitpur Sub-metropolitan City Office, DoA Site Office, Patan
12:30 – 13:00	Transfer to Swayambhu	UNESCO and DoA vehicles

Time	Programme	Remarks
13:00 – 14:00	Lunch break	
14:30 – 17:00	Meeting with staff of Federation of Swayambhu Management and Conservation (FSMC) <ul style="list-style-type: none"> - Introduction - Briefing by DoA / FSMC - Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, FSMC staff
17:00 – 17:30	Departure Swayambhu and transfer to hotel	UNESCO vehicle

Friday, 30 October 2015

Time	Programme	Remarks
9:30 – 10:30	Departure hotel and transfer to Pashupati monument zone	UNESCO and DoA vehicles
10:30 – 13:00	Meeting with Mr Govinda Tandon, Member Secretary, Pashupati Area Development Trust (PADT) <ul style="list-style-type: none"> - Introduction - Briefing by PADT/ DoA - Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, PADT staff
13:00 – 14:00	Lunch break	
14:00 – 14:30	Transfer to Bauddhanath monument zone	UNESCO vehicle
14:30 – 16:30	Meeting with Mr Sampoorana Kumar Lama, Chairperson, Bauddhanath Area Development Committee (BANDC) and its staff <ul style="list-style-type: none"> - Introduction - Briefing by BANDC and DoA Site visit - Discussion on pertinent issues as necessary 	Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT, BANDC staff

Time	Programme	Remarks
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16:30 – 17:00 Departure Bauddhanath and transfer to hotel

Saturday, 31 October 2015

Time	Programme	Remarks
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9:30 – 17:30 Deskwork among mission team members and preparation of mission report

Sunday, 1 November 2015

Time	Programme	Remarks
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9:30 – 10:00 Departure hotel and transfer to DoA UNESCO vehicle

10:00 – 11:00 Mission outcome discussion with DoA Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT

11:00 – 16:00 Interaction program with stakeholders Venue: DoA
Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT and CWC members from Kathmandu Valley World Heritage site

16:00 – 17:00 Debriefing with DoA and UNESCO Participation: DoA, UNESCO WHC, ICOMOS, ICCROM, UNESCO KAT

ANNEX 4

People met during the Mission

DAY 1 : 27 OCTOBER 2015

1. Meeting at UNESCO Office in Kathmandu
 - 1.1. Christian Manhart, UNESCO Representative to Nepal and Head of UNESCO Office in Kathmandu
 - 1.2. Thomas Schrom, UNESCO Consultant for cultural heritage coordination
 - 1.3. Nipuna Shrestha, Responsible Officer, Culture Unit, UNESCO Office in Kathmandu
2. Briefing meeting at the Department of Archaeology (DoA)

Participation by:

- 2.1. Bhesh Narayan Dahal, Director-General, DoA Nepal
 - 2.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO
 - 2.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
 - 2.4. Sampat Ghimire, Senior Divisional Engineer, DoA Nepal
 - 2.5. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
 - 2.6. Nipuna Shrestha, Culture Unit, UNESCO Office in Kathmandu
 - 2.7. Sujan Shrestha, UNESCO Consultant (Structure engineer)
3. Site visit to Hanuman Dhoka Durbar Square Monument Zone

Participation by:

- 3.1. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO
 - 3.2. Debendra Bhattarai, Archaeological Officer, DoA Nepal
 - 3.3. Gopal Jha, Engineer, DoA Nepal
 - 3.4. Saraswati Singh, Chief of Hanuman Dhoka Museum Development Committee
 - 3.5. Narayan Babu Bhattarai, Chief of Heritage Division, Kathmandu Metropolitan City (KMC)
 - 3.6. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
 - 3.7. Nipuna Shrestha, Culture Unit, UNESCO Office in Kathmandu
 - 3.8. Sujan Shrestha, UNESCO Consultant (Structure engineer)

DAY 2 : 28 OCTOBER 2015

1. Site visit to Changu Narayan Monument Zone

Participation by:

- 1.1. Mission Members
 - 1.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO

- 1.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
- 1.4. Gopal Jha, Engineer, DoA Nepal
- 1.5. Rajendra Karki, Chief Executive Officer, Changu Naryana Municipality, Changu Narayan
- 1.6. Mangala Pradhan, Chief of Monument Conservation and Palace Maintenance Office, DoA Site Office, Bhaktapur
- 1.7. Mohan Krishna Shrestha, Engineer, Chief of Monument Conservation and Palace Maintenance Office, DoA Site Office, Bhaktapur
- 1.8. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
- 1.9. Nipuna Shrestha, Culture Unit, UNESCO Office in Kathmandu
- 1.10. Sujan Shrestha, UNESCO Consultant (Structure engineer)

2. Site visit to Bhaktapur Durbar Square Monument Zone

Participation by:

- 2.1. Mission Members
- 2.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO
- 2.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
- 2.4. Laxman Basukala, Engineer, DoA Nepal
- 2.5. Mangala Pradhan, Chief of Monument Conservation and Palace Maintenance Office, DoA Site Office, Bhaktapur
- 2.6. Mohan Krishna Shrestha, Engineer, Chief of Monument Conservation and Palace Maintenance Office, DoA Site Office, Bhaktapur
- 2.7. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
- 2.8. Nipuna Shrestha, Culture Unit, UNESCO Office in Kathmandu
- 2.9. Sujan Shrestha, UNESCO Consultant (Structure engineer)

Additional participation by:

- Chaitya Raj Shakya, Deputy Mayor, Bhaktapur Municipality
- Ram Govinda Shrestha, Acting Chief Executive Officer (also Head of Heritage Division), Bhaktapur Municipality
- Damodar Suwal, Tourist Information Officer, Bhaktapur
- Govinda Lasiwa, Tourist Information Officer, Bhaktapur

DAY 3 : 29 OCTOBER 2015

1. Site visit to Patan Durbar Square Monument Zone

Participation by:

- 1.1. Mission Members
- 1.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO

- 1.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
- 1.4. Chandra Shova Shakya, Chief of Heritage, Culture and Archaeology Conservation Centre, Lalitpur Sub Metropolitan City
- 1.5. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
- 1.6. Sujana Shrestha, UNESCO Consultant (Structure engineer)

2. Site visit to Swayambhu Monument Zone

Participation by:

- 1.1. Mission Members
- 1.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO
- 1.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
- 1.4. Mahendra Ratna Buddhacharya, General Secretary (volunteer engagement), Federation of Swayambhu Management and Conservation (FSMC), also from local Priest community
- 1.5. Panna Kaji Buddhacharya, Secretary (volunteer engagement), FSMC
- 1.6. Punya Sagar Lama, Treasurer, FSMC
- 1.7. Gyanu Lama (volunteer engagement), FSMC
- 1.8. Rajesh Suwal, FSMC staff
- 1.9. Dipendra Bajracharya, FSMC staff
- 1.10. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
- 1.11. Nipuna Shrestha, Culture Unit, UNESCO Office in Kathmandu
- 1.12. Sujana Shrestha, UNESCO Consultant (Structure engineer)

DAY 4 : 30 OCTOBER 2015

1. Visit to Pashupati Monument Zone

Participation by:

- 1.1. Mission Members
- 1.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO
- 1.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
- 1.4. Suresh Nepal, Member Secretary, Pashupati Area Development Trust (PADT)
- 1.5. Ramesh Kumar Uprety, Executive Director, PADT
- 1.6. Kosh Prasad Acharya, Former Executive Director, PADT
- 1.7. Shyam Shekhar Jha, Senior Director Officer, PADT
- 1.8. Rajendra Dhar Rajopadhyaya, Deputy Director, PADT
- 1.9. Bharat Marasini, Director of Planning, PADT
- 1.10. Rewati Raman Adhikari, Administrative Officer, PADT
- 1.11. Purusottam Khatriwada, Architect, PADT
- 1.12. Kedar Thapalia, Civil Engineer, PADT
- 1.13. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO

- 1.14. Nipuna Shrestha, Culture Unit, UNESCO Office in Kathmandu
- 1.15. Sujan Shrestha, UNESCO Consultant (Structure engineer)

2. Visit to Bauddhanath Monument Zone

Participation by:

- 1.1. Mission Members
- 1.2. Suresh Suras Shrestha, Chief Archaeological Officer, Chief of World Heritage Conservation Section, DoA Nepal, and also coordinating Earthquake Response Coordination Office (ERCO), DoA/UNESCO
- 1.3. Debendra Bhattarai, Archaeological Officer, DoA Nepal
- 1.4. Sampoor Kumar Lama, Chairman, Bauddha Nath Area Development Committee, BNADC
- 1.5. Basanta Raj Lama, Member, BNADC
- 1.6. Chakrajit Moktan, Member, BNADC
- 1.7. Dilendra Dhakal, Legal Advisor, BNADC
- 1.8. Milan Bhujel, Advisor, BNADC
- 1.9. Pasang Lama, Overseer, BNADC
- 1.10. Sandip Maharjan, Office Assistant, BNADC
- 1.11. Manindra Shrestha, UNESCO Consultant (Architect-Technical cum logistic support), ERCO, DoA/UNESCO
- 1.12. Sujan Shrestha, UNESCO Consultant (Structure engineer)

DAY 5 : 31 OCTOBER 2015

Self-deskwork among mission members

DAY 6 : 01 NOVEMBER 2015

- 1. Interaction program with stakeholders of Kathmandu Valley World Heritage Sites and DoA national experts - Presentation on mission outcome, debriefing and interaction with stakeholders

ANNEX 5

Adopted Retrospective Statement of Outstanding Universal Value, WHC-12/36.COM/8E, p. 124

Property	Kathmandu Valley
State Party	Nepal
Id. N°	121 bis
Dates of inscription	1979 - 2006

Brief synthesis

Located in the foothills of the Himalayas, the Kathmandu Valley World Heritage property is inscribed as seven Monument Zones. These monument zones are the Durbar squares or urban centres with their palaces, temples and public spaces of the three cities of Kathmandu (Hanuman Dhoka), Patan and Bhaktapur, and the religious ensembles of Swayambhu, Baudddhanath, Pashupati and Changu Narayan. The religious ensemble of Swayambhu includes the oldest Buddhist monument (a stupa) in the Valley; that of Baudddhanath includes the largest stupa in Nepal; Pashupati has an extensive Hindu temple precinct, and Changu Narayan comprises traditional Newari settlement, and a Hindu temple complex with one of the earliest inscriptions in the Valley from the fifth century AD. The unique tiered temples are mostly made of fired brick with mud mortar and timber structures. The roofs are covered with small overlapping terracotta tiles, with gilded brass ornamentation. The windows, doorways and roof struts have rich decorative carvings. The stupas have simple but powerful forms with massive, whitewashed hemispheres supporting gilded cubes with the all-seeing eternal Buddha eyes.

As Buddhism and Hinduism developed and changed over the centuries throughout Asia, both religions prospered in Nepal and produced a powerful artistic and architectural fusion beginning at least from the 5th century AD, but truly coming into its own in the three hundred year period between 1500 and 1800 AD. These monuments were defined by the outstanding cultural traditions of the Newars, manifested in their unique urban settlements, buildings and structures with intricate ornamentation displaying outstanding craftsmanship in brick, stone, timber and bronze that are some of the most highly developed in the world.

Criterion (iii): The seven monument ensembles represent an exceptional testimony to the traditional civilization of the Kathmandu Valley. The cultural traditions of the multi ethnic people who settled in this remote Himalayan valley over the past two millennia, referred to as the Newars, is manifested in the unique urban society which boasts of one of the most highly developed craftsmanship of brick, stone, timber and bronze in the world. The coexistence and amalgamation of Hinduism and Buddhism with animist rituals and Tantrism is considered unique.

Criterion (iv): The property is comprised of exceptional architectural typologies, ensembles and urban fabric illustrating the highly developed culture of the Valley, which reached an apogee between 1500 and 1800 AD. The exquisite examples of palace complexes, ensembles of temples and stupas are unique to the Kathmandu Valley.

Criterion (vi): The property is tangibly associated with the unique coexistence and amalgamation of Hinduism and Buddhism with animist rituals and Tantrism. The symbolic and artistic values are manifested in the ornamentation of the buildings, the urban structure and often the surrounding natural environment, which are closely associated with legends, rituals and festivals.

Integrity

All the attributes that express the outstanding universal value of the Kathmandu Valley are represented through the seven monument zones established with the boundary modification accepted by the World Heritage Committee in 2006. These encompass the seven historic ensembles and their distinct contexts. The majority of listed buildings are in good condition and the threat of urban development is being controlled through the Integrated Management Plan. However the property continues to be vulnerable to encroaching development, in particular new infrastructure.

Authenticity

The authenticity of the property is retained through the unique form, design, material and substance of the monuments, displaying a highly developed traditional craftsmanship and situated within a traditional urban or natural setting. Even though the Kathmandu Valley has undergone immense urbanization, the authenticity of the historic ensembles as well as much of the traditional urban fabric within the boundaries has been retained.

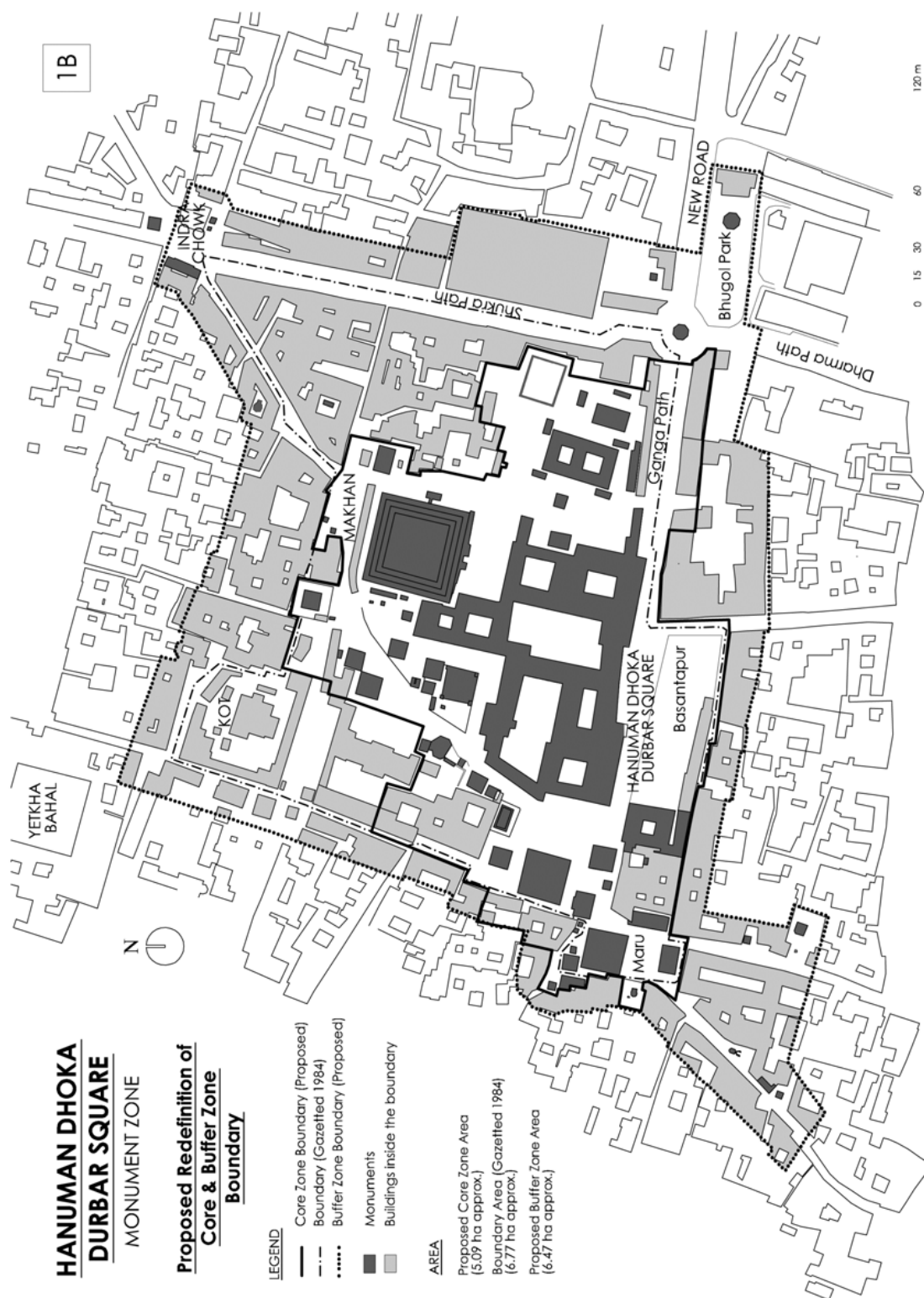
Protection and management requirements

The designated property has been declared a protected monument zone under the Ancient Monument Preservation Act, 1956, providing the highest level of national protection. The property has been managed by the coordinative action of tiers of central government, local government and non-governmental organizations within the responsibilities and authorities clearly enumerated in the Integrated Management Plan for the Kathmandu World Heritage Property adopted in 2007. The implementation of the Integrated Management Plan will be reviewed in five-year cycles allowing necessary amendments and augmentation to address changing circumstances. A critical component that will be addressed is disaster risk management for the property.

ANNEX 6

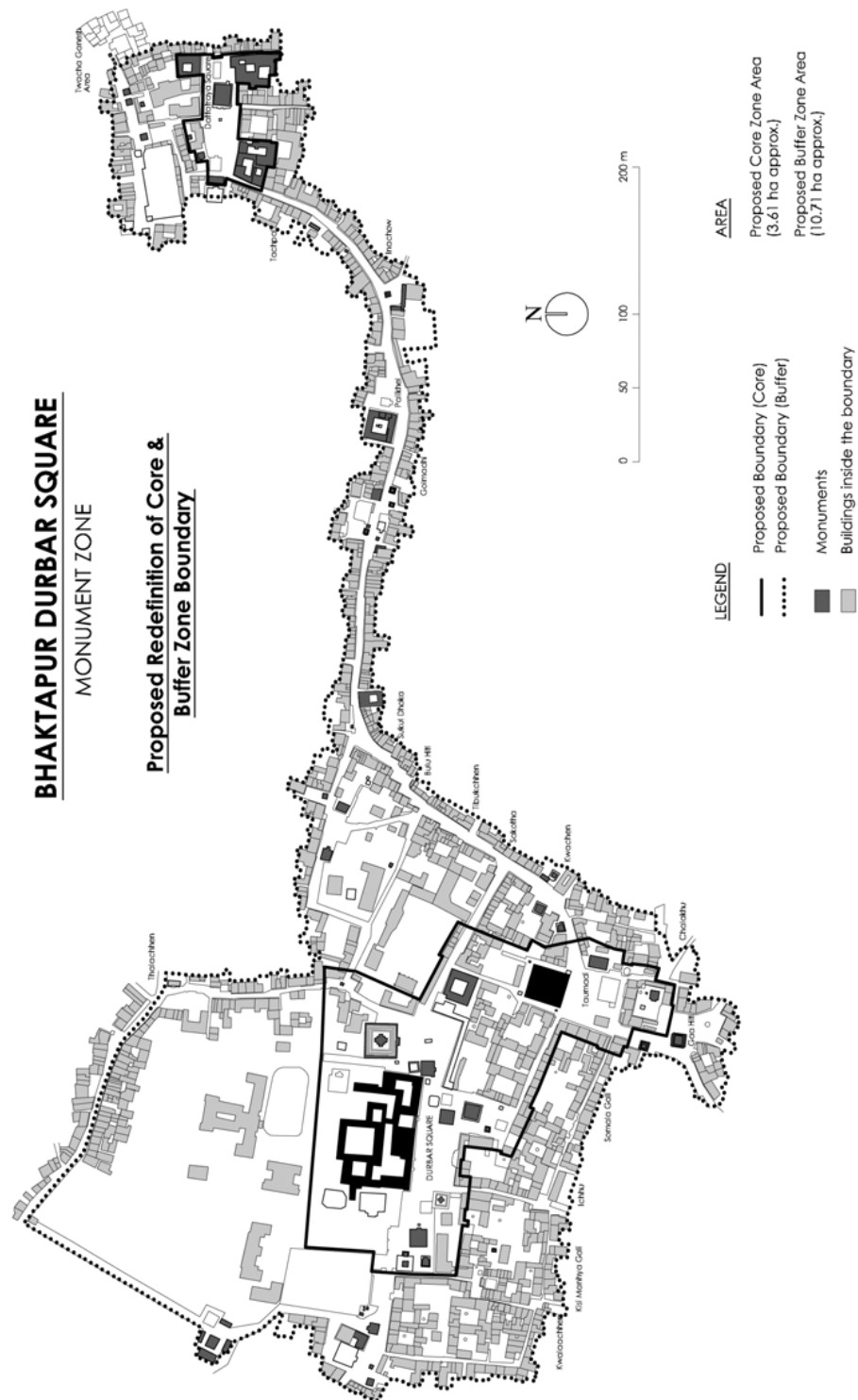
WORLD HERITAGE PROPERTY BOUNDARIES

Kathmandu Valley World Heritage Site in Danger Request for Minor Modification



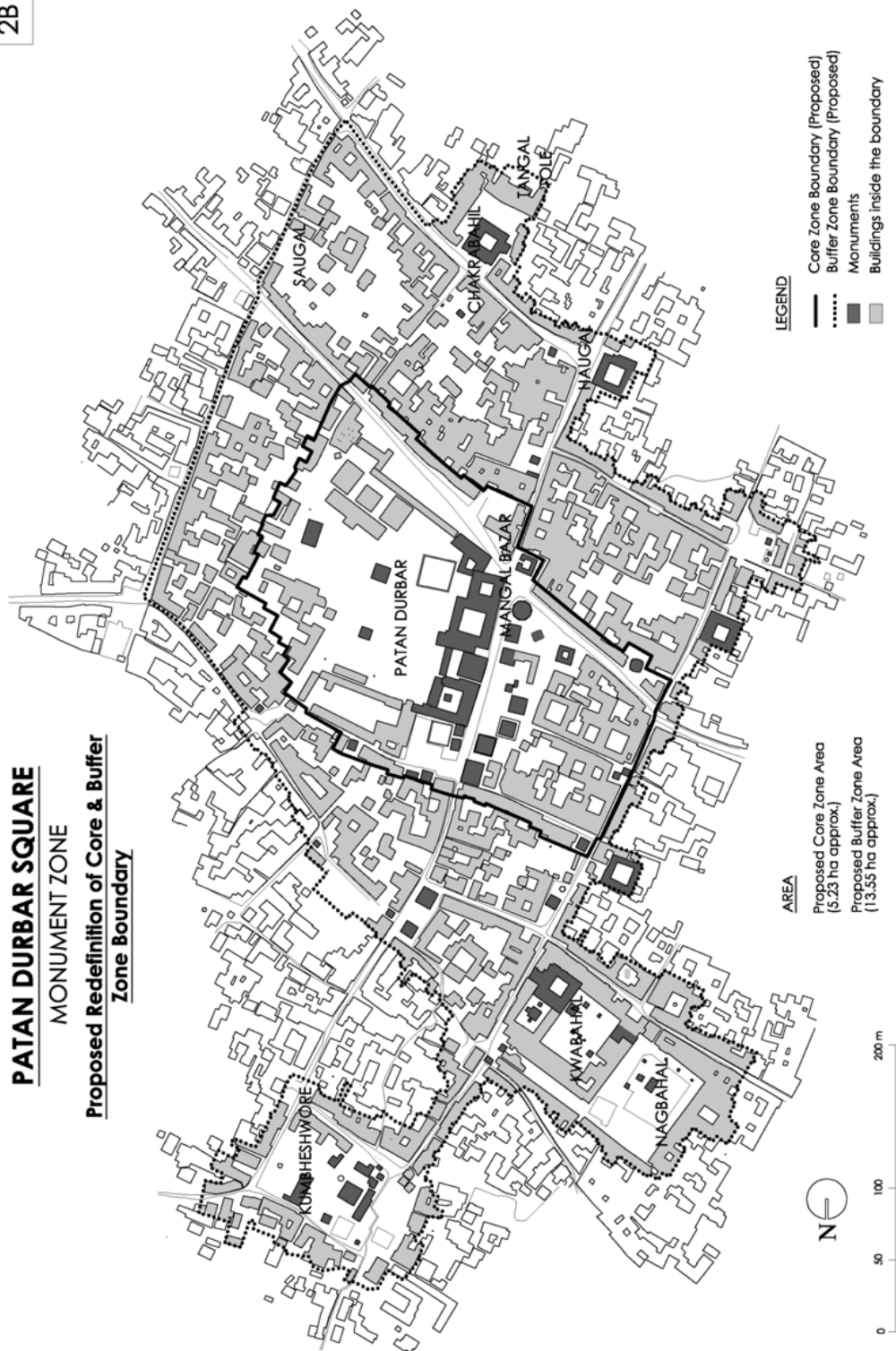
Kathmandu Valley World Heritage Site in Danger Request for Minor Modification

3B



Kathmandu Valley World Heritage Site in Danger Request for Minor Modification

2B



Kathmandu Valley World Heritage Site in Danger

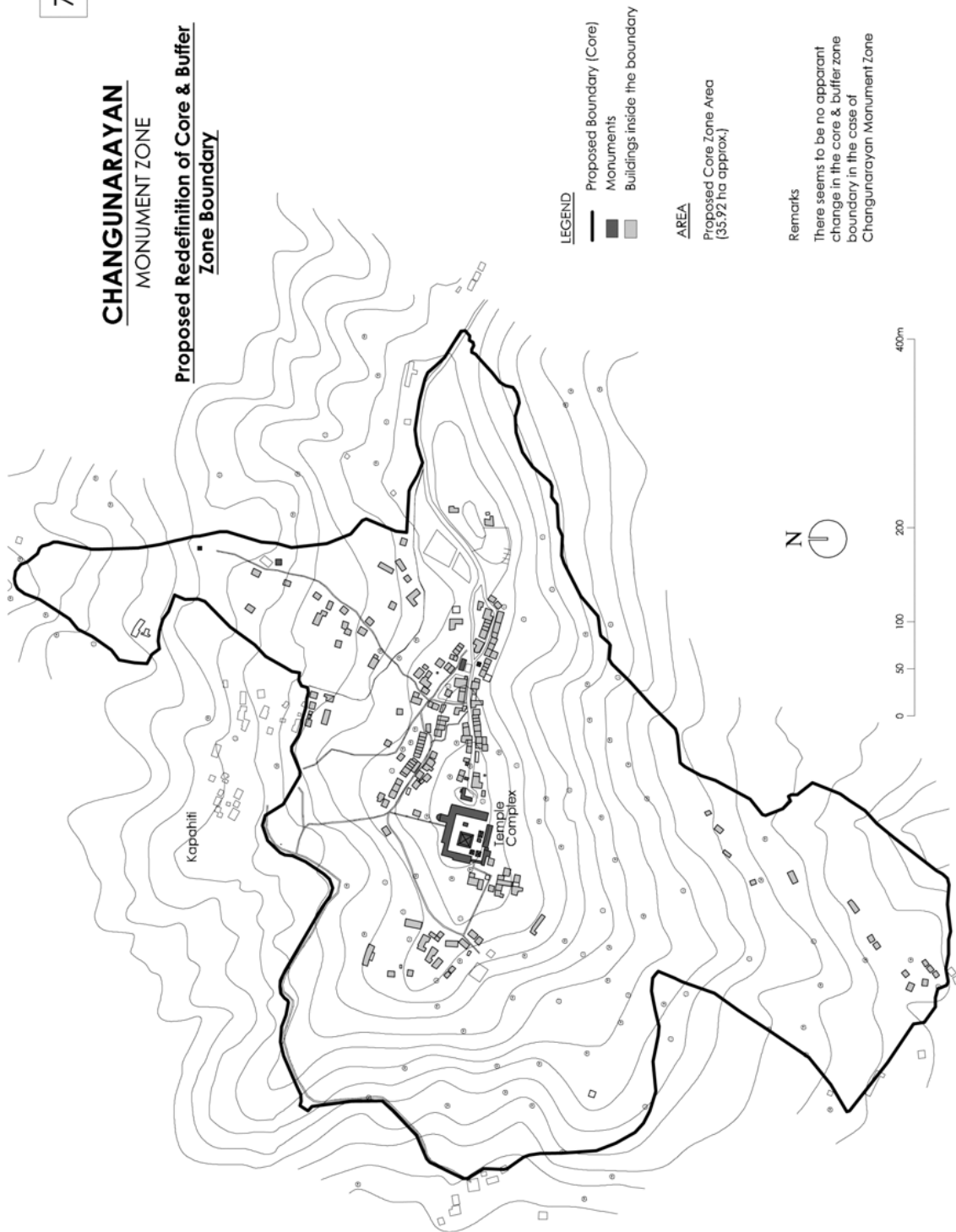
Request for Minor Modification

7B

CHANGUNARAYAN

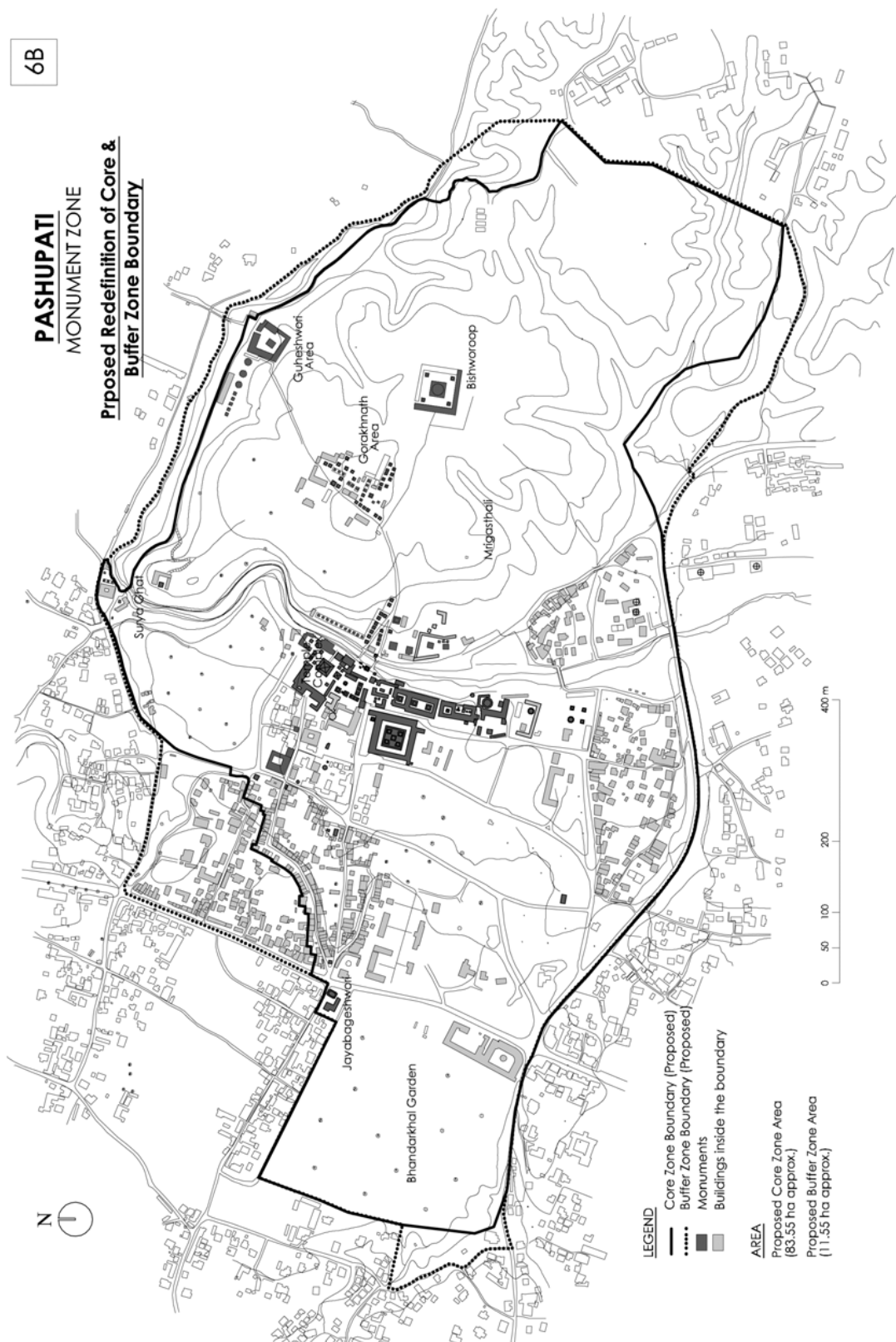
MONUMENT ZONE

Proposed Redefinition of Core & Buffer Zone Boundary



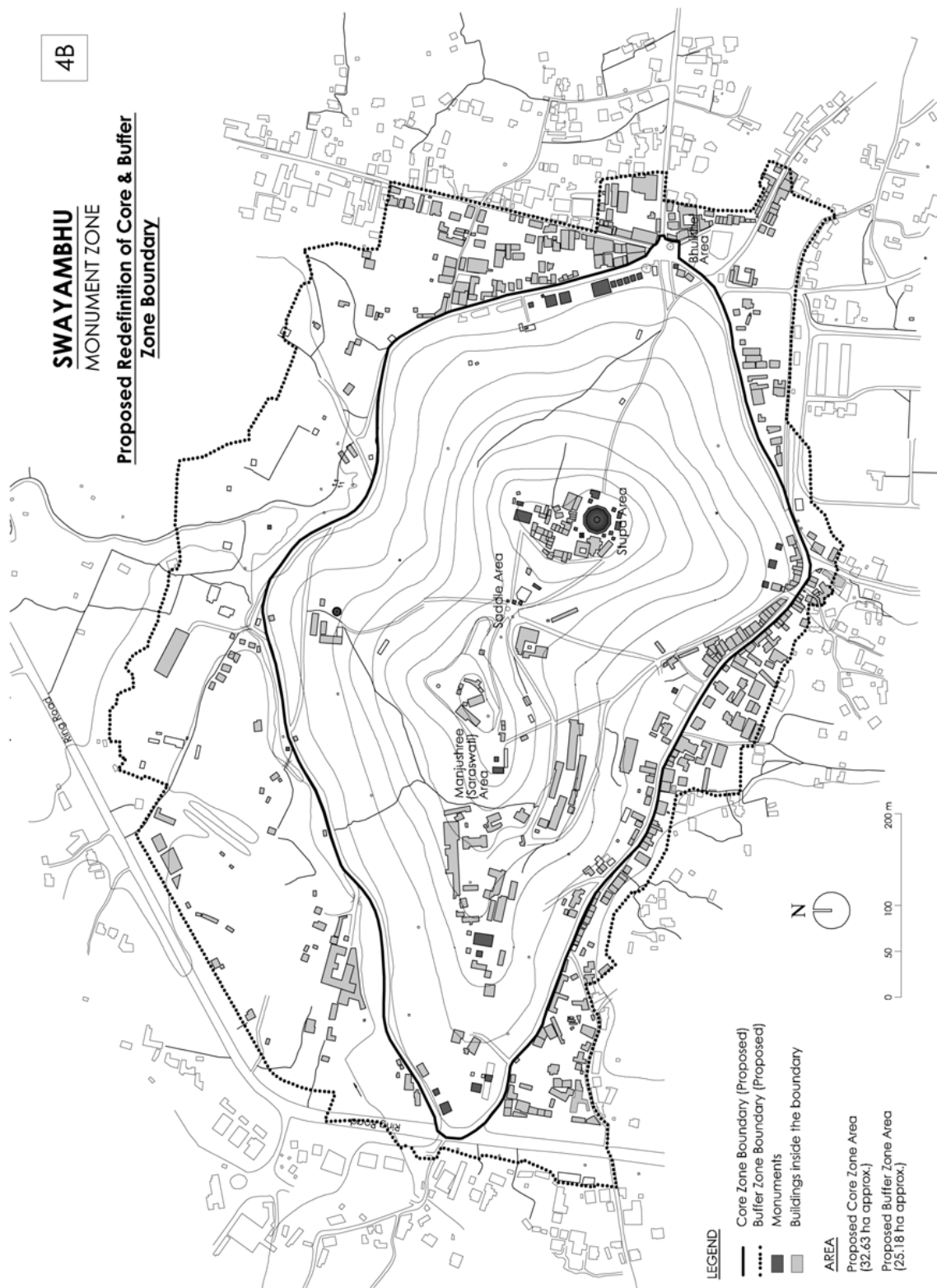
Kathmandu Valley World Heritage Site in Danger

Request for Minor Modification



Kathmandu Valley World Heritage Site in Danger

Request for Minor Modification



Kathmandu Valley World Heritage Site in Danger

Request for Minor Modification

5B

BAUDDHANATH MONUMENT ZONE

Proposed Redefinition of Core & Buffer Zone Boundary



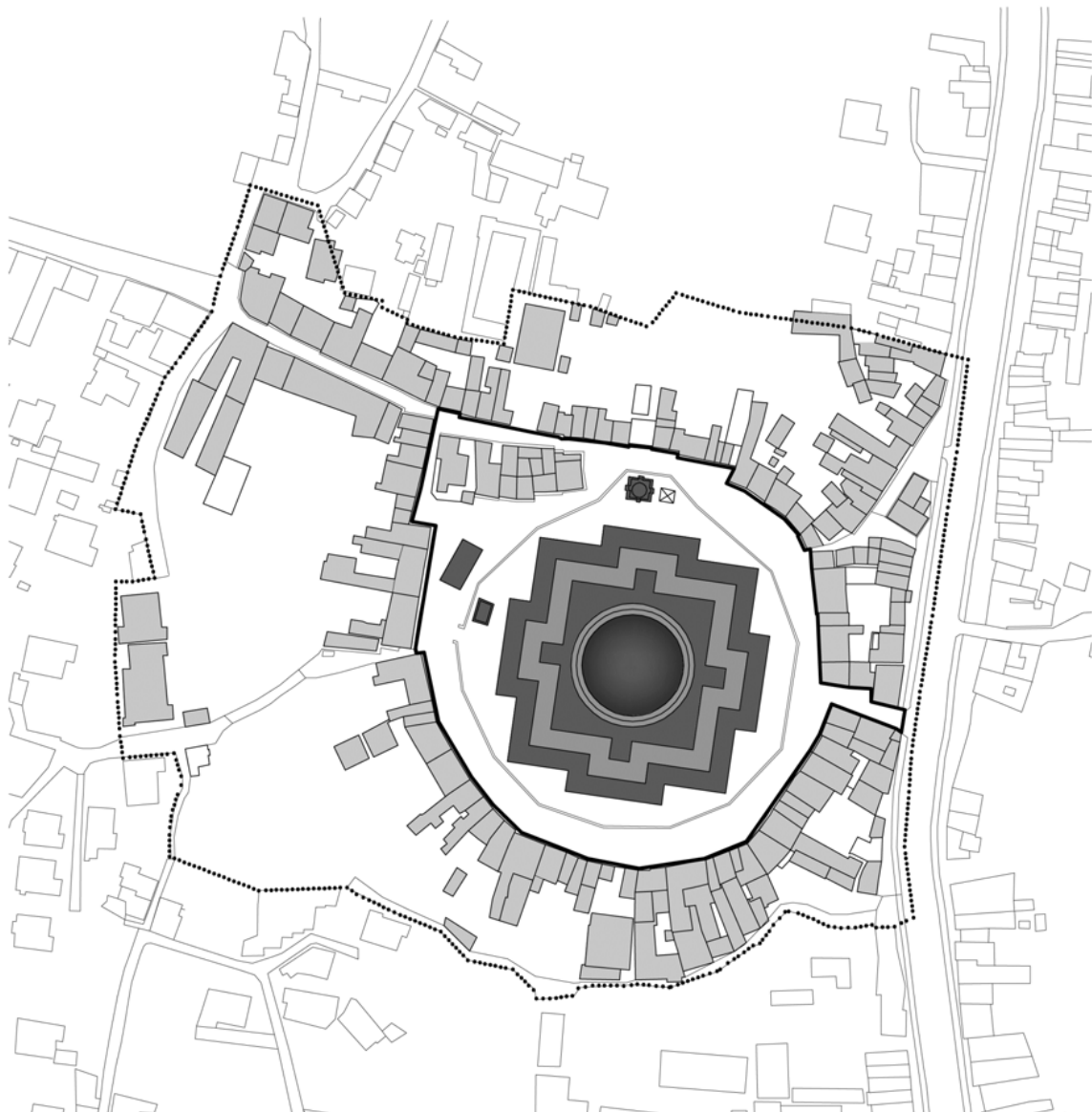
0 10 20 40 80 m

LEGEND

- Proposed Boundary (Core)
- Proposed Boundary (Buffer)
- Monuments
- Buildings inside the boundary

AREA

- Proposed Core Zone Area
(1.27 ha approx.)
- Proposed Buffer Zone Area
(2.83 ha approx.)



ANNEX 7

PHOTOGRAPHS FROM THE MISSION

HANUMAN DHOKA DURBAR SQUARE MONUMENT ZONE



Looking north over Hanuman Dhoka Durbar Square



Looking northeast towards Hanuman Dhoka Palace



Stepped temple bases in Hanuman Dhoka Durbar Square (Meju Dega Temple at centre).



Temples at northern end of Hanuman Dhoka Durbar Square are open to the public.



Looking west over Hanuman Dhoka Durbar Square and site of Kasthamandap



Archaeological investigations being carried out on base of Kasthamandap



Two remaining posts salvaged from Kasthamandap



Archaeological investigations of Kasthamandap site



Sorting and cleaning of relics from Kasthamandap



Relics gathered from Kasthamandap



Surviving temples at northern end of Hanuman Dhoka Durbar Square



Salvaged bricks stacked in Hanuman Dhoka Durbar Square



Temporary propping in place to support damaged structures (Degu Telegu on right)



Large stones that are too heavy to move remain in the public square



Temples are open to the public



Loose bricks in upper tier of temple provide a hazard to visitors



Temporary propping of Kumari Ghar (left) and protective hording around surviving lingum on tiered base of destroyed temple enables daily rituals to continue.



Skateboarding on temple base at night.



View along Ganga Path to Hanuman Dhoka Durbar Square showing loss of some traditional buildings in monument zone.



Damage to older portion of Hanuman Dhoka Palace (Nine Storey Palace)



Serious damage to and partial collapse of nineteenth century portions of palace (facing Nautale Durbar)



Salvaged timbers from collapsed temples stored in grounds of palace. Interpretive signage shows visitors what was there before the earthquake. Visitors can watch sorting process.



Damage to nineteenth century palace buildings



Propping of nineteenth century palace buildings

BHAKTAPUR DURBAR SQUARE MONUMENT ZONE



View looking east across Bhaktapur Durbar Square showing damage to museum (left) and loss of Batsala temple (centre, end of square)



Most temples in Bhaktapur monument zone remain standing.



Base of collapsed Fasidega Temple in core monument zone. Materials and carved elements have been salvaged and stored.



Damage to sattals located in core monument zone



Remaining stepped base of Basala temple, Bhaktapur Durbar Square



Batsala temple, which had been repaired using cement, collapsed.



Recently repstored Fifty Five Window Palace survived intact.



Salvaged stone carvings from collapsed temples stored in museum.



Damage to wall around Peacock window



Damage to wall around Peacock window



Severe damage to houses and other buildings located in buffer zone



Severe damage to houses and other buildings located in buffer zone



Storage of salvaged timbers in buffer zone



Storage of salvaged roof tiles in Bhaktapur monument zone

PATAN (LALITPUR) DURBAR SQUARE MONUMENT ZONE



Patan Durbar Square showing collapsed temples



Patan Durbar Square with collapsed temple in centre and archaeological investigation trench on left.



Propping of temple in Patan Durbar Square. Most temples in the square survived.



Recently restored tower on Patan Palace Museum collapsed



Loose bricks over opening in entrance courtyard to museum



People standing under area of unstable brickwork



Carved timber elements salvaged and stored inside Palace Museum, Patan



Rear wing of museum damaged and in process of being demolished.



Daily rituals and practices continue at religious sites despite damage to buildings



Daily rituals and practices continue at religious sites despite damage to buildings

CHANGU NARAYAN MONUMENT ZONE



Damage to houses in ancient settlement along path up to Changu Narayan Temple Complex



Damage to houses in ancient settlement along path up to Changu Narayan Temple Complex



Stairs and entrance gate to temple complex damaged. Upper floors of the sattals were severely damaged and were subsequently demolished. Materials are stored on site



Upper floors of sattals around temple complex were severely damaged and demolished. Materials have been salvaged stored.



Changu Narayan temple is propped. Corner brickwork has already been relayed. Laxmi Narayan Temple destroyed (left of main temple)



Daily rituals continue at the temple.

PASHUPATI MONUMENT ZONE



View south along ghat at Pashipatinath. New solar lighting is prominent.



View of ghat adjacent temple complex showing daily rituals continuing



Little damage to main temple in Pahupaiti complex



Damage to temple buildings in Guheshwari area



Damage to monuments in Gorakhnath area on top of hill



Collapse of dome to Vishwarupa temple on top of hill



Evidence of landslide near top of hill



Damage to shrines at centre of Pancha Deval



Street in ancient settlement showing damage to traditional housing, which was already in very poor condition



Damage to wall of Jayabashwari temple

SWAYAMBHU MONUMENT ZONE



Cracks in dome of Swayambhu stupa were sealed to protect the stupa during the monsoon rains. They are to be repaired during the dry season.



Severe damage was recorded at the Shantipur temple, including damage to the internal wall murals.



Partial collapse of the one the Shikhara style temples located to the east of the stupa.



Sattals collapsed around the edges of the hilltop. There is some evidence of movement in the retaining walls constructed to stabilise the hillside.

BAUDDANATH MONUMENT ZONE



The top portion of the Bauddanath stupa was damaged and has since been dismantled for repair.



The new Yasti (central pole) has been consecrated for erection at the top of the stupa.



The timber crown and canopy elements are to be repaired and re-erected on top of the stupa

ANNEX 8

PRELIMINARY LIST OF COLLAPSED AND PARTIALLY DAMAGED MONUMENTS OWING TO EARTHQUAKE ON 25TH APRIL 2015 (2072/1/12) -
INSIDE KATHMANDU VALLEY PMZ

**PRELIMINARY LIST OF Collapsed AND PARTIALLY DAMAGED MONUMENTS
OWING TO EARTHQUAKE ON 25TH APRIL 2015 (2072/1/12) - INSIDE KV-PMZ**

Updated 30 July 2015

SN	PI Code	DoA Grade	Name of Monuments	Typology	Location	PMZ / District	Condition Report
1	K-191	A	Maju Dega	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
2	K-202	A	Trailokyamohan Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
3		C	Kamdev Temple	Shikhara Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
4	K-197	A	Kasthamandapa	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
5	K-196	B	Shiva Temple (Shiva Ling Temple) (Behind Kasthamandap)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
6	K-189	A	Vishnu Temple (to the north of Maju Dega)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
7	K-155	A	Shiva Temple (in front of Taleju Temple)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
8	K-156	A	Shiva Temple (in front of Taleju)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
9			Pratap Stambha	Pillar	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
10	K-181	A	Radhakrishna Temple (Chyasin Mandap)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
11	K-154	B	Kageshwar Temple	Shikhara Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
	K-159		Mahadev Temple (By the side of Nag Pokhari)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Collapsed
12	K-186	A	Shiva Parvati Temple (Nava Yogini Temple)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
13			Vishnu Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
14	K-179	A	Degu Tale Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
15	K-152	B	Maha Vishnu Temple (Pancha Mukhi Laxmi Narayan Temple)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
16	K-164	A	Nautale Durbar (Basantapur Bhawan)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
17		B	Gaddhi Baithak	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
18	K-163	A	Nasal Chowk (cracks in the walls of west and south building)	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
19	K-170	A	Agam Chhen Temple (cracks & buckling in lower walls)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
20	K-172	A	Sundari Chowk	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
21	K-171	A	Mohankali chowk	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
22	K-168		Lohan Chowk	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
23		A	Daakha Chowk	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
24		A	Dasainghar Chowk	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
25	K-161	A	Mul Chowk (Southern façade)	Palace Building	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
26			Shiva Temple (Dasainghar)	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
27			Dhukutghar		Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
28	K-162	A	Panchamukhi Hanuman Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
29	K-157	A	Taleju Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
30			Kampukot		Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
31	K-204	A	Kumari Ghar	Dyo Chhen	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
32	K-180	A	Sweta Bairav	Shrine	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
33			Nagara house		Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
34	K-174a		Small Temple around Jagannath Temple		Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
35	K-175	A	Gopinath Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
36		B	Shiva (Bishwamvareswar) Temple (to the north of Mahavishnu)		Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
37	K-182	B	Saraswati Temple	Tiered Temple	Hanumandhoka	Hanumandhoka Durbar PMZ	Partially Damaged
38	K-208		Agam Dega (Krishna Temple in Nom. Document)		Basantapur	Hanumandhoka Durbar PMZ	Collapsed
39	P-132	A	Charnarayan Temple	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Collapsed
40	P-128	A	Shankararayan (Hari Shankar) Temple	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Collapsed
41	P-136a		Manimandap-1	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Collapsed
42	P-136a		Manimandap-2	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Collapsed
43			Pillar of Yognarendra Malla	Pillar	Patan Durbar Square	Patan Durbar PMZ	Collapsed
44	P-139		Radha Krishna Temple (to the north of Patan Durbar Square)	Tiered Temple	Swotha	Patan Durbar PMZ	Collapsed
45			Bishweshwar Mahadev Temple	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
46	P-127	A	Taleju of Mulchowk	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
47			Agamchhe of Mulchowk	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
48	P-122	A	Sundari Chowk (East Facade has Collapsed)	Palace Building	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
49			Radha Krishna (to the north of Patan Durbar Square)	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
50			Bahadur Shah Bhawan	Palace Building	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
51			Mu Chhen (adjacent to Bahadur Shah Bhawan)		Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
52	P-135	A	Bishwanath Temple	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
53	P-138	A	Bhimsen Temple	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
54	P-130	A	Degu Tale Temple	Tiered Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
55	P-133a		Temple inside Keshavnarayan Chowk		Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
56		B	Lamo Pati (Thana Pati)	Pati / Sattal	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
57	P-134	A	Krishna Temple	Shikhara Temple	Patan Durbar Square	Patan Durbar PMZ	Partially Damaged
58	P-105		Kumbheshwar Temple	Tiered Temple	Konti	Patan	Partially Damaged
59	P-107		Bagalamukhi Temple	Tiered Temple	Konti	Patan	Partially Damaged
60	B-10	A	Batsala Devi Temple	Shikhara Temple	Bhaktapur Durbar Square	Bkt Durbar PMZ	Collapsed
61	B-12	A	Shilu Mahadev Temple (Fasi Dega)	Domical Temple	Bhaktapur Durbar Square	Bkt Durbar PMZ	Collapsed
62			Kedarnath (Rameshwar?) Temple		Bhaktapur Durbar Square	Bkt Durbar PMZ	Collapsed

63			Betal Pati	Pati / Sattal	Taumadi	Bkt Durbar PMZ	Collapsed
64			Western Entrance of Bhaktapur Durbar Square	City Gate	Bhaktapur Durbar Square	Bkt Durbar PMZ	Collapsed
65			Taleju Temple	Tiered Temple	Bhaktapur Durbar Square	Bkt Durbar PMZ	Partially Damaged
66		A	Harishankar Sattal	Pati / Sattal	Bhaktapur Durbar Square	Bkt Durbar PMZ	Partially Damaged
67		A	Lal Balthak	Palace Building	Bhaktapur Durbar Square	Bkt Durbar PMZ	Partially Damaged
68	B-41	A	Nyatapol Temple	Tiered Temple	Taumadi	Bkt Durbar PMZ	Partially Damaged
69	B-42	A	Bhairavnath Temple	Tiered Temple	Taumadi	Bkt Durbar PMZ	Partially Damaged
70		A	Yesamari Sattal	Tiered Temple	Taumadi	Bkt Durbar PMZ	Partially Damaged
71	B-29	A	Pujari Matha	Residential Building	Dattatraya	Bkt Durbar PMZ	Partially Damaged
72			Bronze Art Museum Building		Bhaktapur	Bkt Durbar PMZ	Partially Damaged
73			Art gallery		Bhaktapur	Bkt Durbar PMZ	Partially Damaged
74			Police house		Bhaktapur Durbar Square	Bkt Durbar PMZ	Partially Damaged
75	B-11	A	Siddhilaxmi	Shikhara Temple	Bhaktapur Durbar Square	Bkt Durbar PMZ	Partially Damaged
76			Narayan Temple (to the east of Fasi Dega)		Bhaktapur Durbar Square	Bkt Durbar PMZ	Partially Damaged
77			Nriteshwor		Bhaktapur	Bkt Durbar PMZ	Partially Damaged
78	B-13a		Pati of Balakhu Ganesh	Pati / Sattal	Bhaktapur	Bkt Durbar PMZ	Partially Damaged
79		A	Jayabageshwori Temple	Tiered Temple	Chabahil	Pashupati PMZ	Partially Damaged
80		A	Guheshwori Temple	Shrine	Guheshwori	Pashupati PMZ	Partially Damaged
81		A	Sattal around Guheshwori Temple	Pati / Sattal	Guheshwori	Pashupati PMZ	Partially Damaged
82			Seto Sattal		Guheshwori	Pashupati PMZ	Partially Damaged
83			Sattal at Guheshwori (Bank of Bagmati)	Pati / Sattal	Guheshwori	Pashupati PMZ	Partially Damaged
84		B	Vishwarupa Temple	Domical Temple	Mrigasthali	Pashupati PMZ	Collapsed
85			Radhakrishna Temple		Mrigasthali	Pashupati PMZ	Collapsed
86			Ram Sita and Laxman Temple		Mrigasthali	Pashupati PMZ	Partially Damaged
87		B	Gorakhnath Temple	Shikhara Temple	Mrigasthali	Pashupati PMZ	Partially Damaged
88			Shivaparvati Temple (in the front of Gorakhnath Temple)		Mrigasthali	Pashupati PMZ	Collapsed
89			Bhandarghar (Gorakhnath Temple complex)		Mrigasthali	Pashupati PMZ	Partially Damaged
90			Ashram of Yogi Naraharinath		Mrigasthali	Pashupati PMZ	Partially Damaged
91			Chandreshwor Sattal	Pati / Sattal	Mrigasthali	Pashupati PMZ	Partially Damaged
92			Seto Shiva Temple (East of Bagmati river)		Ram Temple Area	Pashupati PMZ	Partially Damaged
93			Shiva Temple		Ram Temple Area	Pashupati PMZ	Partially Damaged
94			Ram Temple (Bank of Bagmati river)		Ram Temple Area	Pashupati PMZ	Partially Damaged
95			Ghat Pasal Sattal	Pati / Sattal	Ram Temple Area	Pashupati PMZ	Partially Damaged
96			Ram kuti (Bank of Bagmati river)		Ram Temple Area	Pashupati PMZ	Partially Damaged
97			Laxman Narayan Temple		Ram Temple Area	Pashupati PMZ	Partially Damaged
98			Ram Temple (Bank of Bagmati river)		Ram Temple Area	Pashupati PMZ	Partially Damaged
99			Nanak Sattal	Pati / Sattal	West of Bagmati	Pashupati PMZ	Partially Damaged
100			House in the backside of the Shiva Temple		West of Bagmati	Pashupati PMZ	Partially Damaged
101		A	Pancha Deval	Domical Temple	West of Bagmati	Pashupati PMZ	Partially Damaged
102		A	Vridhdhasram around Panchadeval	Pati / Sattal	West of Bagmati	Pashupati PMZ	Partially Damaged
103		C	Vajraghar		West of Bagmati	Pashupati PMZ	Partially Damaged
104		C	Sankaracharya Matha		West of Bagmati	Pashupati PMZ	Partially Damaged
105			Sankaracharya Shivalaya				Collapsed
106		C	Kulananda Jha sattal	Pati / Sattal	West of Bagmati	Pashupati PMZ	Partially Damaged
107			Ghyampe Pati	Pati / Sattal	West of Bagmati	Pashupati PMZ	Partially Damaged
108			Agam Ghar		West of Bagmati	Pashupati PMZ	Partially Damaged
109			Saptami Sattal	Pati / Sattal	West of Bagmati	Pashupati PMZ	Partially Damaged
110			Bhasar Tahabil Office		West of Bagmati	Pashupati PMZ	Partially Damaged
111			Rudragadeshwor Sattal		West of Bagmati	Pashupati PMZ	Partially Damaged
112			Sano Sadabrat		West of Bagmati	Pashupati PMZ	Partially Damaged
113			Sankarnarayan Sattal	Pati / Sattal	West of Bagmati	Pashupati PMZ	Partially Damaged
114			Mahasnan Ghar		West of Bagmati	Pashupati PMZ	Partially Damaged
115			Guruju Sattal		West of Bagmati	Pashupati PMZ	Partially Damaged
116			Shiva Temple (to the north of Pashupati complex)		West of Bagmati	Pashupati PMZ	Partially Damaged
117			Basuki Temple		West of Bagmati	Pashupati PMZ	Partially Damaged
118			Lal Ganesh Temple		West of Bagmati	Pashupati PMZ	Partially Damaged
119			Surya Temple (close to Lal Ganesh)		West of Bagmati	Pashupati PMZ	Partially Damaged
120			Pashupati Pakshala		West of Bagmati	Pashupati PMZ	Partially Damaged
121			Sitala Devi Pati		West of Bagmati	Pashupati PMZ	Partially Damaged
122			Sriko Pakshala		West of Bagmati	Pashupati PMZ	Partially Damaged
123		B	Jitjungaprakeseshwor Temple		West of Bagmati	Pashupati PMZ	Partially Damaged
124		B	Sattal around Jitjungaprakeseshwor Temple		West of Bagmati	Pashupati PMZ	Partially Damaged
125			Nava Durga Sattal		West of Bagmati	Pashupati PMZ	Partially Damaged
126			Rajrajeshwori Sangeet Asram		West of Bagmati	Pashupati PMZ	Partially Damaged
127		B	Prakasheshwor Temple		West of Bagmati	Pashupati PMZ	Partially Damaged
128			Mukteshwor (Near to Prakesheshwor)		West of Bagmati	Pashupati PMZ	Collapsed
129		C	Kirateshwor Sattal		West of Bagmati	Pashupati PMZ	Partially Damaged

130			Kirateshwor Sangeet Ashram		West of Bagmati	Pashupati PMZ	Partially Damaged
131			Kirateshwor Yagyashala		West of Bagmati	Pashupati PMZ	Partially Damaged
132			Shiva Temple (Guheshwori)		West of Bagmati	Pashupati PMZ	Partially Damaged
133			Anatanarayan (Batsala area)		West of Bagmati	Pashupati PMZ	Partially Damaged
134			Pancha Ganesh (Batsala area)		West of Bagmati	Pashupati PMZ	Partially Damaged
135			Pashupati Dharmashala			Pashupati PMZ	Partially Damaged
136			Bankali Bhajan Ghar		Bankali	Pashupati PMZ	Collapsed
137	K-329		Anantapur Temple	Shikhara Temple	Swayambhu Hill	Swayambhu PMZ	Collapsed
138			Tibetan Chhorten (to the south of main stupa) - Tashi Gorma?		Swayambhu Hill	Swayambhu PMZ	Collapsed
139	K-327		Karmaraj Mahavihara	Gumba	Swayambhu Hill	Swayambhu PMZ	Collapsed
140			Deva Dharma Mahavihara (Swayambhu Gumba?)	Gumba	Swayambhu Hill	Swayambhu PMZ	Collapsed
141	K-326		Shantipur	Shrine	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
142			Basubhandhu Chaitya	Chaitya	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
143			Pati in the east of Shantipur	Pati / Sattal	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
144	K-328		Pratappur	Shikhara Temple	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
145			Gyanmala Bhajan Sattal	Pati / Sattal	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
146			Museum Building		Swayambhu Hill	Swayambhu PMZ	Partially Damaged
147			Pillar in the west of main stupa	Pillar	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
148	K-331a		Sattal around Manjushri Temple	Pati / Sattal	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
149			Harati Temple	Tiered Temple	Swayambhu Hill	Swayambhu PMZ	Partially Damaged
150			Bauddha Stupa (cracks on the Trayodasabhavana / the Pinnacle has tilted)	Stupa	Bauddha	Bauddha PMZ	Partially Damaged
151			Changu Narayan Temple	Tiered Temple	Changu Narayan	Changu Narayan PMZ	Partially Damaged
152			Kleshwor Temple	Tiered Temple	Changu Narayan	Changu Narayan PMZ	Partially Damaged
153			Laxminarayan Temple		Changu Narayan	Changu Narayan PMZ	Collapsed
154			Shiva Temple		Changu Narayan	Changu Narayan PMZ	Collapsed
155			Sattal around Changu Narayan Temple	Pati / Sattal	Changu Narayan	Changu Narayan PMZ	Collapsed

ANNEX 9

Draft Sixyear Overview Rehabilitation Action Plan

OVERVIEW OF SIX YEAR REHABILITATION PERIOD

2015		2016		2017		2018		2019		2020		2021	
➡	➡	➡	➡	➡	➡	➡	➡	➡	➡	➡	➡	➡	
	SEASON 1 (Preparation & Emergency)	Monsoon	SEASON 2 [PRIORITY 1]	Monsoon	SEASON 3 [PRIORITY 2]	Monsoon	SEASON 4 [PRIORITY 3]	Monsoon	SEASON 5 [PRIORITY 4]	Monsoon	SEASON 6 [COMPLETION]	Monsoon	REACCESS
INTERNATIONAL PROJECTS													
NATIONAL PROJECTS													
COMMUNITY PROJECTS													

The rehabilitation period has been planned for six years. This would require a one year preparation and emergency phase, followed by four seasons of priority-wise project implementation. The last season would need to be reserved for completions and finalizing of projects. This provides a clear framework to plan out an initial strategy for post-earthquake rehabilitation of cultural heritage in Nepal.

The rehabilitation will take place on three levels.

1. International Level which includes the most complicated and largest projects focusing mainly on the World Heritage site
2. National Level will included all remaining listed monuments
3. Community Level will encompass all remaining heritage closely linked to the intangible values

OVERVIEW OF INITIAL SIX YEAR REHABILITATION PERIOD

The monsoon period in between will be utilized for planning and preparation works for subsequent stage.

The planning phase will ensure that all provisions required for implementation are considered and put in place which includes assessment, approach, strategy, institutional establishment and capacity as well as implementation requirements.

By the time the rains are over and work on site can begin without too much hindrance, the implementation phase would need to begin.

RESPONSE PHASE

The ongoing response phase was initially carried out by volunteers directly on site. This was carried out in some sites systematically and the building elements of the collapsed structures were salvaged and stored away. In other sites the process was slightly more chaotic and the challenge was to keep things under control as far as possible. In many sites the army and armed police assisted the work under the supervision of DOA staff.

The approach that was agreed upon was that the World Heritage sites, Tentative List sites and the DOA Listed Monuments would need to be proactively investigated, assessed and safeguarded. All other monuments would be left to the district authorities and communities to assess and safeguard. Some specific challenges needed direct involvement such as the case of the Hanuman Dhoka Palace Museum and the complex set of issues in Swayambhu. How far this was possible will need to be reviewed at the end of the response phase.

The Earthquake Response Coordination Office (ERCO) was established in DOA under the coordination of Chief of WH Section of the DOA, which will remain the coordination centre over the entire rehabilitation period.

PLANNING PHASE

The planning phase would have to prepare all issues required for the smooth implementation of restoration and rehabilitation works. The following five categories of issues needs to be reviewed, clarified and necessary steps for adopting and establishing will be undertaken.

1. Understanding overall circumstances and creating appropriate data base and inventory.

All the information on initial assessments, detailed assessments, monitoring reports, documentation and photography as well as later on the

conservation reports must be stored and made easily accessible.

2. Categorization and prioritization of projects:

All monuments, cultural objects and possibly the related intangible culture will be categorized and prioritized based on value and level of threat. The categorization will also take into account the approach, responsibility and procedures to be used for restoration and conservation.

3. Establish coordination and management system:

A coordination and management system will be needed for the rehabilitation phase which can only be handled through a temporary time-bound Coordination Committee/Steering Committee. The format for this committee along with its responsibilities and modus operandi will be clarified. The procedures for handling funds and procurement / contracting regulations will need to be simplified, realistic however keeping things transparent. At the same time the capacity of DOA will be increased.

4. Legal, technical and philosophical approach:

To ensure that there are no complications between the numerous teams involved and varying groups of national participants the entire rehabilitation will need to follow a single vision and approach. This means that a clear philosophical approach will be agreed upon which will be anchored in legal instruments and will guide all technical decisions. To this end, the conservation guideline will be prepared and strictly implemented.

5. Means of implementation – material and skills:

The main bottleneck for implementing such a large number of projects will be the insufficient materials and crafts-persons. This would need to be dealt with immediately to allow smooth implementation by the second year.

IMPLEMENTATION PHASE

The implementation phase will be detailed out during the planning phase. It will however consist of the following levels and phases.

The project will be implemented at three levels:

1. International Project:

These projects will be carried out through international involvement in financing, expertise and implementation. These projects, which will be the largest and most complex ones will be coordinated through the ICC. Focus will be given to World Heritage and sites on the tentative list.

2. National Projects:

These projects will be carried out mainly through the regular budget of DOA and through the component of the national emergency funds earmarked for cultural heritage. These projects focusing on list monuments will be carried out directly under DOA supervision.

3. Community Projects

These projects will be the non-listed monuments which will not be possible for the central government authorities to deal with. A lot of these projects might also be parts of overall village reconstruction.

Community involvement should also be ensured for the national and international level projects wherever relevant.

FIRST YEAR: Preparation and Emergency

The implementation phase would begin right after the monsoon, but we must understand that there will be a lack of materials as well as crafts-persons. The crafts-persons that are around would need to be utilized for immediate emergency tasks of highest priority with the government ensuring materials are reserved for these projects. At the same time alternative and sustainable material sources will be established. Training of crafts-persons will need to start immediately. The management of master crafts-person for the specialized works will be critical.

SECOND - FIFTH YEAR: Project Implementation

Implementation will take place based on the prioritized plan and at three levels. The coordination between all these projects will be critical, requiring sufficient capacity of DOA and close collaboration with the Coordination Committee/Steering Committee. The community based project would also need support, possibly financial and technical expertise.

SIXTH YEAR: Completion and closing

The last year of the rehabilitation phase would need to be for completion and closing of projects as well as ensuring their management, maintenance and handing over for general use. This would also be the time to assess what further requirements might be needed. This would be when the mandate of the Coordination Committee/Steering Committee would either be extended or terminated.