

# PROGRESS REPORT

*ON SOC*

## Lumbini

**The Birthplace of Lord Buddha  
World Heritage property**



**1 FEBRUARY 2014**



**Government of Nepal**  
**Ministry of Culture, Tourism and Civil Aviation**  
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(Report prepared in cooperation with **Lumbini Development Trust**)

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## **Introduction**

Lumbini, the site of Archaeological, historical, cultural and religious importance in Rupandehi district, Lumbini zone, Nepal was enlisted on World Heritage List in 1997, as Lumbini The Birthplace of Lord Buddha World Heritage Property under the criterion (iii) and (vi) as the birth place of the Lord Buddha, testified by the inscription on the Asoka Pillar and as the archaeological remains of the Buddhist Vihara (monasteries) and stupas (memorial shrines) from 3<sup>rd</sup> century B.C. to 15<sup>th</sup> Century AD.

This report has been prepared as per the request of World Heritage Committee as its 36<sup>th</sup> session in St. Petersburg, Russia in 2012. The report is prepared with the close cooperation of Lumbini Development Trust. It has mentioned about the information of the researches and different activities done in Lumbini world Heritage Property and surroundings.

**Decision: 36 COM 7B.65**

***The World Heritage Committee,***

1. *Having examined Document WHC-12/36.COM/7B,*
2. *Recalling Decision 35 COM 7B.74, adopted at its 35th session (UNESCO, 2011),*
3. *Notes the progress in developing the Integrated Management Plan (IMP) as well as the conservation measures taken for the property;*
4. *Requests the State Party to continue its work on the finalization of the Integrated Management Plan (IMP), and to continue its commitment to not approving any development project within the property or in the adjacent areas identified as having potential archaeological significance before the completion of the IMP and before conducting Heritage Impact Assessments, in conformity with the ICOMOS Guidelines on Heritage Impact Assessments for World Heritage cultural properties;*
5. *Encourages the State Party to continue to develop also strategies to further reduce industrial activity in the vicinity of the property; and requests that for any future proposals Heritage Impact Assessment should be undertaken to consider the potential impact on the Outstanding Universal Value of the property and its setting, as part of a wider Environmental Impact Assessment, for review by the World Heritage Centre and the Advisory Bodies;*
6. *Reiterates its request to the State Party to submit to the World Heritage Centre detailed information on any proposed major restoration or new construction in the vicinity of the property, for review by the World Heritage Centre and the Advisory Bodies;*
7. *Also requests the State Party to submit to the World Heritage Centre, by 1 February 2014, an updated report on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 38<sup>th</sup> session in 2014.*

## **Section A**

### **Response to the points made by the World Heritage Committee**

#### **Refer 36COM 7B.65**

4. *Requests the State Party to continue its work on the finalization of the Integrated Management Plan (IMP), and to continue its commitment to not approving any development project within the property or in the adjacent areas identified as having potential archaeological significance before the completion of the IMP and before conducting Heritage Impact Assessments, in conformity with the ICOMOS Guidelines on Heritage Impact Assessments for World Heritage cultural properties;*

#### **Preparation and adoption of the IMP**

The Integrated Management Framework document has been finalized but has yet to be ratified by the Cabinet of the Government of Nepal. The draft Integrated Management Framework document has been attached in Annex 1

Special attention has been paid to the areas identified as having potential archaeological significance and no development work has been carried out that would negatively impact the archaeological importance and authenticity of the site.

5. *Encourages the State Party to continue to develop also strategies to further reduce industrial activity in the vicinity of the property; and requests that for any future proposals Heritage Impact Assessment should be undertaken to consider the potential impact on the Outstanding Universal Value of the property and its setting, as part of a wider Environmental Impact Assessment, for review by the World Heritage Centre and the Advisory Bodies;*

#### **Studies on environmental threats and their impact**

Various organizations have carried out environmental studies in and around Lumbini and within the heritage property. UNESCO and IUCN prepared an Environmental Impact Assessment of industrial development around Lumbini. The conclusion and recommendations of the report have been provided in Annex 2. Further studies have been carried out by the World Health Organization and the Asian Development Bank.

#### **Government regulations**

Government of Nepal has banned any kind of industries within the 15 km from the periphery road of the one by three mile Lumbini project area.

6. *Reiterates its request to the State Party to submit to the World Heritage Centre detailed information on any proposed major restoration or new construction in the vicinity of the property, for review by the World Heritage Centre and the Advisory Bodies.*

**New construction within World Heritage boundaries**

**1. Pedestrian walkway with meditation platforms**

To fulfil the requirements of the pilgrims and visitors in the sacred garden it was considered necessary to provide meditation platforms and control visitor movement along pedestrian pathways which were constructed accordingly.



*Walkway*



*Meditation platform*

**2. Additional meditation platforms**

There is one more platform added to facilitate the need of religious groups. Sometime there are many different groups wanting to meditate in the Sacred Garden at the same time and meditation platforms were not sufficient. Considering this need an addition platform was constructed.

**New construction within buffer zone**

**1. Outer pedestrian walkway**

The pilgrims wish to circumambulate the sacred area of the birthplace of Lord Buddha. It was necessary to provide an outer pedestrian walkway for pilgrims to walk along even during the rainy season.



*Outer pedestrian walkway*

**2. Paving of walkway along main axis from north**

The main entrance to the sacred garden is from the north. From the northern edge of the sacred garden area, earth coloured tile paving has been constructed.



*Walkway  
along with  
the main  
axis from  
north*



**New construction within surrounding Sacred Garden area**  
**(Outside World Heritage Property )**

**1. *Baby Buddha statue (on north circular levee on central axis)***



*Baby Buddha*

**2. *Brick paving of road along circular levee***



*Brick paving of road along circular levee*

3. *Visitor's centre (east of peace flame – northern entrance to Sacred Garden)*



Visitor center

4. *Archaeology office (east of circular levee – as per Master Plan)*



Archaeology building (under completion)

## **Section B**

### **UNESCO / JFIT / DOA / LDT Project**

#### **Identifying, Evaluating and Interpreting the Physical Signature of Lumbini for Presentation, Management and Long-Term Protection**

**Season 2011-2012 (second year)**

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#### **Archaeological Investigations**

##### **Activities**

Activity 2 of the Project aims to identify, evaluate and interpret archaeological sequences within the Maya Devi Temple and the Village Mound, and to map both surface and subsurface features within the Sacred Garden and areas surrounding it, including the Village Mound, through the following activities earmarked for completion in Year Two:

##### **Activity 2.3: Evaluating and Interpreting the Southwest “Village” Mound**

- Continue to map archaeological and natural features of the mound onto GIS.
- Conduct further auger coring to ascertain the profile of the natural mound and spread of cultural Material
- Open one trench within the Police Compound, adjacent to the Main Building, on the highest part of the mound in order to expose the sequences and take C14 samples and kubiena tins to chronometrically date the constructions and microscopically study the deposits. Take Thermo luminescence (TL) samples to chronometrically date the construction.
- Take aerial photographs of the site with the use of a kite camera.



*Auger coring*



*village mound*

##### **Activity 2.4: Evaluating and Interpreting the Sacred Garden**

- Continue to map archaeological and natural features within the Sacred Garden site on GIS.
- Conduct further auger coring to ascertain the profile of the natural mound and spread of cultural material.

- Excavate at least three evaluation trenches adjacent to a sample of the brick structures (monasteries and stupas) in order to expose the sequence and take C14 and TL samples to chronometrically date the construction.
- Take air photographs of the site with the use of a kite camera.

### Activity 2.5: Evaluating and Interpreting the Unsurveyed Areas of the Sacred Garden, Road system and Nursery Well

- Clean and map archaeological and natural features on GIS.



- Conduct further auger core profiles to ascertain the course of the palaeochannel and excavate at least one evaluative trench across its section to expose its fills. Extract kubiena tins from the sequence for thin-sections in order to microscopically study the deposits and interpret their characteristics e.g. speed of silting and movement of

*Nursery well*

- water etc and also the nature of the palaeoenvironment e.g. wood charcoals, pollens etc. Extract OSL samples from each section measuring the background radiations levels in order to chronometrically date the sequences.
- Undertake additional geophysical survey in order to map additional areas of subsurface archaeological remains on the cluster and in its vicinity.
- Take air photographs of the site with the use of a kite camera.

### Activity 2.6: Evaluating and Interpreting Pre-Asokan levels in the Maya Devi Temple

- Empty the modern protective fills of one chamber within the Mauryan structure and excavate back the existing sequences of pre-Asokan occupation.
- Extract kubiena tins from the best preserved sections for thin-section analysis to microscopically study the deposits and interpret their characteristics e.g. internal floors, old land surfaces etc. and also the nature of the palaeo environment e.g. wood charcoals, pollens etc.



- Extract Optically Stimulated Luminescence (OSL) samples from the best preserved section measuring the background radiation levels in order to chronometrically date the sequences.

*post hole pre- Mouryan level inside the*

*Mayadevi temple*

### **3.3 Outputs**

The agreed outputs for Report of Season Two are as follows:

- Confirming the presence of early cultural and natural levels in the Southwest “Village” Mound, assessing their nature and preservation, and mapping them on GIS to prevent future damage.
- Consider the impact of the Police Station’s location on this unique archaeological site – South Asia’s earliest named village.
- Confirming the presence of early cultural levels in the Southeast Zone of the Sacred Garden assessing their nature and preservation, and mapping them on GIS to prevent future damage.
- Confirming the presence of early cultural and natural levels in a sample of the un-surveyed areas of the Sacred Garden, assessing their nature and preservation, and mapping them on GIS to prevent future damage.
- Confirming the presence of Pre-Asokan levels in the Temple, assess

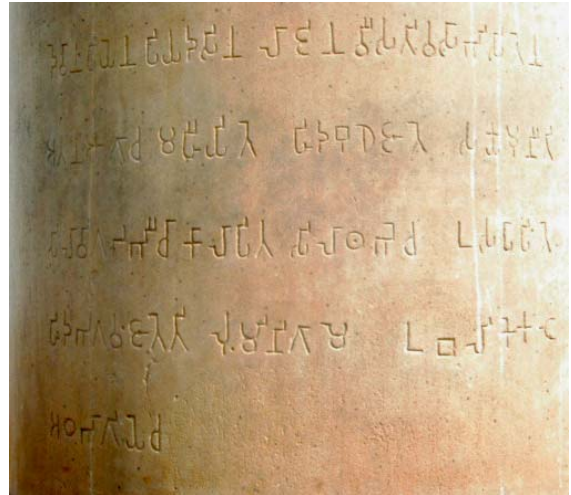


*The pre-Asokan layers visible within Trench C5 in the Maya Devi Temple*

## Conservation works

The work plan consists in several activities to be developed in sequence: the analytical investigations of the masonries of the Maya Devi Temple including the microclimate monitoring, the preliminary monitoring of the Asoka Pillar and the placement of the new protective box for the Marker Stone. Restoration will also be done if necessary.

1. Microclimate Monitoring
2. Revue of the Restoration carried out on 2011
3. State of Conservation of the Masonry
4. Analytical Investigations
  - 4.1. XRF analyses
  - 4.2. Water content determination
  - 4.3. Color measurements
  - 4.4. Salt extraction
  - 4.5. Water capillary absorbance
  - 4.6. Water conductivity
  - 4.7. Level of the aquifer
5. Restoration Activity
6. Protective box assembly
7. Asoka Pillar Monitoring



*The inscription after the cleaning and the waterproofing treatment*



*Water capillary absorbance  
Ashok Pillar*



*cleaning the superficial Patina of*

The major work of the team (Mission) was to conserve and restore the three Archaeological monuments of Lumbini: Ashok Pillar, Nativity Sculpture and Marker Stone. Among the three objects mention above Ashok Pillar is conserved as well as restored in some of its parts. The best method and chemicals (Alcohol, Acetone, Ammonium Carbonate, Ammonium Hydroxide, Hydrogen Peroxide, EDTA etc.), that was identified appropriate in February Mission, were applied to clean the superficial Patina of Ashok Pillar. As it was decided in February Mission, the previous intervention (filling of epoxy etc.) on the vertical crack of the pillar and on the upper part of the pillar just under the cap was removed chipping it out carefully which had taken a long period of time. And the place was restored with new mortar of sand, brick powder and lime. On the same way the Capital Part of the Pillar which was placed aside the pillar also conserved and restored as well as placed in proper way. After all

cleaning and restoration work of the pillar and the capital part Ethyl Silicate is applied as consolidator and water proofing all over the surface of the objects.

Regarding the Marker Stone, the result of the Biocide that was spread on February Mission found pretty well. So removing the bullet proof glass box the Marker Stone is conserved with careful Chemical and Mechanical cleaning and placed the box again as it was. Lastly, again on and around the Marker Stone, the biocide is spread well.



*Chemical conservation of Marker stone*



*Bullet proof glass box*

Conservation of the Nativity Sculpture was another task of the Mission. Pretty long time had to be paid for the cleaning of sculpture. It is cleaned using the paper pulp with different chemical like Alcohol, Acetone, and Ammonium Carbonate etc. as well as by mechanical cleaning.

**UNESCO / JFIT / DOA / LDT Project  
Identifying, Evaluating and Interpreting the Physical Signature of Lumbini for  
Presentation, Management and Long-Term Protection**

**Season 2012-2013 (third year)**

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**Archaeological Investigations**

The third season of archaeological fieldwork took place between the 5th and 29th January 2013 in order to identify, evaluate and interpret the physical signature of Lumbini. As per the timetable of activities, we achieved all of our stated objectives for this phase of activities. We also took micro-morphological, bulk soil and thin section samples from all trenches to aid our further interpretation and dating of the key sites and phases, and the past environment of Lumbini.

**Activity 2.4: Evaluating and Interpreting the Sacred Garden**

We continued to map features within the Sacred Garden, linking them to the wider topography within Lumbini. In order to characterize the Asokan and pre-Asokan entrance-way to the Temple, we opened one trench measuring 3x2.3 meters to the east of the Maya Devi Temple in the “Assembly Hall” and excavated it down to natural. This allows us to directly link the sequences here, with that of Trench ENE excavated in the first season.

We removed the turf and it contained some small brickbat fragments. Removing this, a brick wall was exposed in the north facing section, running underneath the western conserved wall into the east of the trench. Within the trench we found evidence for several occupation phases - four brick phases which represent several reconstructions of the same wall alignment. In addition to the wall several areas of brick paving were found at different edges of the trench. At the bottom of the sequence two postholes represent the earliest indication of occupation on the Monastery.

We collected one OSL sample to determine the age of the structures as well as background environmental dose rates to assist in age determinations. The trench has been backfilled.

**Activity 2.5: Evaluating and Interpreting the Un-surveyed Areas of the Sacred Garden, Road system and Nursery Well**

We continued to map the wider landscape outside of the Sacred Garden creating a detailed topographic map, and linking the disparate archaeological elements of Lumbini.

Geophysical survey of the area surrounding the Nursery Well during the 2012 field season identified a number of anomalies surrounding the well, and a 4m by 4m trench was sited with its SW corner in the





centre of the well - so as to investigate a potential pit to the northeast of the well, while also investigating the well itself. The trench was excavated to a depth of 1m at its *The Nursery Well trench* deepest point, identifying the excavation cut, as well as brick and ceramic dumps, from Rijal's 1970's investigations, as well as identifying a re-cut of the well's original construction cut, interpreted as representing a significant repair to the well during its functional lifetime. Associated with this was a significant dump of ceramics, as well as a wider access cut enabling access to the well's external face. The well itself appears to have been constructed using specially made and marked bricks, formed by creating intact rings of clay, which were then marked and cut into individual bricks, with the markings indicating where each brick belonged within each course. Charcoal samples, along with a single OSL sample were taken in order to date the construction of the well. However, despite overcutting natural in the northeast corner of the 4m x 4m trench, no pit like features were identified that might have corresponded to the geophysical anomalies identified during the 2012 survey. We collected two brick samples to date the well adjacent the nursery as well as background environmental dose rates to assist in age determinations. The Nursery Well deep sondage trench has been backfilled, but the shallower trench and well has been left open for conservation.

In addition to the excavations at the Nursery Well, we carried out an auger survey of the subsurface stratigraphy in the area, carrying out 24 augers along a N-S and an E-W transect, centred upon the well. These indicated that the cultural deposits in the area were largely shallow, and limited to the upper 40-80cm.

The area of the Heli-pad lawn, immediately north of the LDT Archaeology offices, was submitted to a geophysical survey in January 2012, identifying a number of potential features. Additionally, the LDT reported the discovery of an ancient brick-wall during the cutting of a road-ditch in 2012. Consequently, two initial trenches were sited upon the Helipad – Trench 1; measuring 7m x 0.5m (E-W) across the road-ditch in search of the ancient wall identified during the recent ditch cutting, and Trench 2; measuring 12m x 0.5m (E-W) across a large rectangular anomaly in the northeast of the lawn. Trench 1, excavated to a depth of 0.6m, reached the base of the ditch cut without encountering any in-situ structural features. Although a modern flowerbed was encountered at the western end of the trench, along with an ex-situ tip of ancient brick. Due to the absence of in-situ archaeology, this trench was closed.



Trench 2 identified the presence of a large brick-bat platform, with faced external walls, and several courses of *Excavation at Helipad* brick-bat raising the platform above the surrounding landscape. A further two trenches were opened over the structure in order to better describe and understand the structure, with a 4m x 0.5m Trench 3

opened over the NE corner of the structure, and a 2.5 x 1.5m Trench 4 opened over a possible cell in the centre of the structure. Trench 4 was quickly identified as a modern excavation trench, likely from Rijal's excavations, and only reached a depth of 0.6m – terminating on an earlier layer of brick-bat paving. Trench 3 meanwhile identified the continuation of the external wall face, along with the slump of the platform, but was only excavated to a depth of 0.3m. Trench 2 however identified a full structural sequence, and reached natural at a depth of 2.6m below the surface. The brick-platform featured four separate layers of brick-bat paving, each separated by a layer of mud-packing. These sat upon an earlier palaeo-surface, which in turn sealed the earliest occupation of the site in the form of two intercut pits – both of which were rich in ceramics and charcoal. Charcoal samples, along with a single OSL sample were taken in order to date the construction of the platform. The deep sondage at the Helipad has been backfilled.

In addition to the excavation activities on the Helipad, a second auger survey was carried out – completing 24 augers along two transects running N-S and E-W, cantered upon the brick-platforms southeastern corner.

### **Activity 2.6: Evaluating and Interpreting Pre-Asokan levels in the Maya Devi Temple**

To further our understanding of the development and architectural character of the Temple, that has been advanced substantially through the previous two years investigations, we opened two

trenches, C6 and C9, and also cleaned the surface of a third, C12. We also continued to map the features within the Temple and work with the conservation team to safeguard the future integrity of the archaeological material within it.

An area of 1.60 x 0.50 metres was opened in Trench C6, with the aim of discovering the extent of the pre-Asokan temple posthole alignment and brick curb excavated last season in Trench C5b. However, once the modern protective fill of gravel, brick and geo-textile was removed and the section cleaned back it was apparent that such features were not present in this area of the Temple. However, we have uncovered a sequence that demonstrates that the Asokan period walls cut through earlier cultural material. The gaps between these foundations were levelled with rubble material containing bricks as well as a deposit that utilised tile, brickbat and plaster, which suggests such material was available at or near the site prior to the Asokan Temple. In the cultural material before natural, five postholes were excavated, exemplifying the pre-Asokan activity at the site of the Maya Devi Temple.



#### *Pre-Asokan activity*

An area of 1.60 x 1.40 meters was opened in Trench C9. Once the modern protective fill was removed from trench C9 we found two large bricks left in situ by the JBF who previously half sectioned this trench. It was thought that as this was at the same depth as the large brick

pavements in C5b and C12 that a further pavement may be present. Similar leveling material to that found in the upper part of trench C6, including brick, tile, plaster and brickbats were present. Rather than overlying an intact brick pavement, we found a rammed earth floor with some bricks, suggesting that this area of pavement may have had more use and needed repair. This was cut by the Asokan walls and along with its depth, suggests that this paving was part of a phase of the pre-Asokan Temple. Furthermore, it sealed a compact ash floor, suggestive of ritual activity in this area of the Temple prior to the construction of the Asokan structure.

C12 did not contain any modern protective fill and whilst no excavation was conducted we were able to clean the surface of the trench. We encountered large bricks forming a pavement, with one brick measuring around 50x38cm. This was the size of the large curved bricks found last year in Trench C5b. The pavement was used as a foundation by the Asokan Temple walls, highlighting an earlier brick built Temple phase, complimenting last season's results. The paving in C12 was also at the same depth as the top of the curved in C5b and the rammed floor in C9, which suggests that the paving in the brick phase of the pre-Asokan Temple extended over a larger area than previously thought.

We refined our chrono-stratigraphic framework by sampling key locations within the Maya Devi Temple and in the sacred garden. Micro-morphology samples were collected from the late pre-Asokan platform in trench MDT-13 C9 to determine sequence of construction, while samples collected from the lower contexts of MDT-13 C6 provide an opportunity to consider further the relationships between early landscape management and alluvial deposition.

All trenches in the Temple have been left open, and will be backfilled by LDT under instruction from the conservation team.

### **Activity 2.7: Visitor and Pilgrim Survey**

The Visitor and Pilgrim survey ran from the 7th until 27th January. There were two parts in the survey: the first consisted of short interviews with visitors as they entered the Sacred Garden to have general data regarding the characteristics of tourists visiting Lumbini, including nationality, religion and purpose of visit. It was, then, followed, in a second phase, by observation of their behaviour throughout their visit. The survey was held with the contribution of Tribhuvan University students and the sample obtained represents 293 interviews over a 20 day period.

The results show both similarities and changes since the last UNESCO cultural monitoring mission that took place between October 2001 and April 2002. The large majority of visitors are still Nepali who represents 75% of tourists on the site followed by Indian (9%), and Korean visitors (3%). Hindu remains the dominant religion on site although the proportion of Buddhist has increased remarkably from 21% in 2001-2 to 34% in January 2013. However, when asked about the reason of their visit, most visitors do not mention religion or pilgrimage. Over 50% of interviewees describe their visit as sightseeing/leisure.

The observation of visitors' behavior in the Sacred Garden has also obtained new interesting results. The time spent on the site remains relatively short, averaging to just over 30 minutes. However, the time spent at different areas and the worship activities seem to have partially shifted towards the tree where the average time-spent is higher than the area near the Asokan Pillar. Although most of donations are given in the temple, the tree presents a more important

diversity in the types of offerings than any other monument in the Garden, notably money, incense and different types of food and flowers.

### **Further Geo-archaeological Investigations**

In order to investigate site formation processes at the Lumbini World Heritage site and the surrounding landscape through analysis of the soil and sedimentary record, we use complementary optically stimulated luminescence and thin section micro-morphology techniques. Our objectives for the 2013 field season at Lumbini were to: 1) complement chrono-stratigraphic frameworks established from work conducted during the previous two field seasons, and 2) collect ethnographic and alluvial landscape control samples to enhance geo-archaeological interpretations. With the invaluable assistance of local residents, we were able to collect micro-morphology samples from active occupation surfaces, structures, and cultivated areas. Excavation for the canal extension near the north gate of the Lumbini Cultural Zone had exposed a 2.5 meter stratigraphic section from which we collected our alluvial landscape controls and one associated OSL sample to establish the age of an observed palaeo-land surface.

### **Conservation works**

1. to study the masonries inside the Maya Devi Temple in terms of composition and production technology of the bricks according to their chronology;
2. to define the influence of the aquifer on the degradation processes;
3. to individuate and define the degradation mechanisms and the evolution rate;
4. to verify in situ the efficacy of the most common and tested restoration commercial products ;
5. to study the indoor microclimate of the Maya Devi Temple and correlate it with the degradation processes;
6. to start the monitoring of the Asoka Pillar in order to define the best methodologies to be applied to verify the possibility to exhibit the Pillar in a different way.

The problems of conservation within the vicinity of Mayadevi Shrine can be summed up as follows:

- The Mauryan bricks inside the temple remain wet almost throughout the year round because of the capillary action.
- The water and salt content in it are degrading the Mauryan bricks.
- The Mauryan bricks are being badly affected by the biological attack like fungus, algae and other micro organisms.
- Micro climatic study has been concluded to understand the channel and distribution of micro climate parameters inside the Mayadevi temple.
- To enhance the capacity LDT and DoA, the concerned institutions related to conservation.

The program has accomplished following works during the session.

#### **1. Cleaning:**

- a. The bricks of the chamber C7 and the aforesaid south structure were cleaned with dry brush firstly. They were sprayed with biocide (biotin 3% with water) to treat

biological attack caused by fungus, algae etc. The bricks were then cleaned with ammonium carbonate 5% solution and water alternatively with the help of sponge initially that was given final touch with tooth brush. Complicated superficial depositions in certain parts were removed mechanically with the help of scrapers.

- b. The channel lying between the 2 walls of the south structure was cleaned with the mixture of 5% ammonium carbonate, 3% biotin and water. The channel was cleaned with the solution using tooth brush and sponge.

**2. Filling:**

The fissures of the fragile brick of the south structure were filled tight with lime, sand and brick powder mortar with the ratio of 1:2:5 respectively.

**3. Consolidation:**

Two different solutions were applied to protect the brick of the chamber C7 and the South Structure. The solvent solution was prepared with white spirit 40% and isopropyl alcohol 60% v/v and the treatment solution was prepared with Silo111 40% and Estel 1000 60%. These two solutions were mixed together with the ratio of 4:6 and sprayed onto the bricks.

**4. Micro Climate Study**

The team collected data of the micro climate of and within the Temple with scientific apparatus fixed last year and new ones located to cover the plan of the temple. New data was also recorded with additional equipments brought this year. Namely, IR camera allowed recording thermal distribution and anomalies both on the masonry and on the Asokan Pillar, while strain gadgets were located on the pillar to record the mechanical solicitations induced by the sun light.

**Master Plan for Lumbini World Peace City  
Lumbini Vishwa Shanti Nagrama  
Preservation and Development  
Koica and Kwaak E.S.P.R.I.**

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The Master Plan for Lumbini World Peace City is a plan prepared by Dr. Kwaak through funding by KOICA and the Government of the Republic of Korea. The plan has not yet been finalized and adopted by the Government of Nepal. The plan is said to focus only on the area outside the Lumbini Project Area of one by three mile as defined in the Kenzo Tange Master Plan. To finalize this plan, an overall Heritage Impact Assessment needs to be carried out.

Introduction and Map of the final draft report has been attached under Annex 3.

ANNEX - 1

LUMBINI, BIRTHPLACE OF THE LORD BUDDHA, WORLD HERITAGE PROPERTY

# INTEGRATED MANAGEMENT FRAMEWORK

FINAL DRAFT 30 MAY 2013



## Lumbini Development Trust

*in close collaboration with the*

Government of Nepal  
Ministry of Culture, Tourism and Civil Aviation  
Department of Archaeology

World Heritage Centre *and* UNESCO Office in Kathmandu



United Nations  
Educational, Scientific and  
Cultural Organization



World Heritage  
Convention



लुम्बिनी विकास त्रुस्ट-१९८५

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# 1. IDENTIFICATION and OBJECTIVES

## 1.1 INTRODUCTION

The “*Integrated Management Framework*” for Lumbini, the Birthplace of the Lord Buddha, is a document adopted by the Government of Nepal. It defines the frameworks within which the “*Integrated Management Process*” is implemented and constitutes the “*Management Plan*” as requested by the World Heritage Committee.

### **Need for the Integrated Management:**

Every World Heritage property requires a clearly defined management system. “To be deemed of Outstanding Universal Value, a property must also meet the conditions of integrity and/or authenticity and must have an adequate protection and management system to ensure its safeguarding.” (*Article 78, Operational Guidelines for the Implementation of the World Heritage Convention*) The requirements for the management systems are defined in articles 108 to 118 of the Operational Guidelines.

The World Heritage Committee has specifically requested the State Party to prepare an integrated **management plan**. In 2002, the World Heritage Committee requested information on the management that ensures the protection of the World Heritage values of the property. Since 2004, the World Heritage Committee has requested the elaboration of a comprehensive conservation and **management plan**.

In establishing the **management frameworks and processes**, provisions must be made for the possible extension of the property to include other important sites in the regions in a serial nomination. In 1997 the World Heritage Committee inscribed Lumbini on the World Heritage List. “The Delegate of Thailand declared that apart from Lumbini, there are two other sites closely associated with Buddha which are in the process of preparation to be presented as serial nominations and that he hoped that the Committee would consider them in this context.” (*21COM VIII C Decision Text*)

### **The Integrated Management Framework:**

The Integrated Management Framework is a document adopted by the Government of Nepal. It defines the implementation of the Integrated Management Process.

This document is comprised of three parts:

#### ***Part 1: Identification and Objectives***

This section defines Lumbini, the Birthplace of the Lord Buddha. The objectives of the Integrated Management Process are formulated in respect to the World Heritage property as a whole.

#### ***Part 2: Integrated Management Framework***

This section gives the overall strategies and defines in detail the Institutional, Legal and Economic Frameworks

#### ***Part 3: Implementation***

This section gives the outline on the long-term implementation of the Integrated Management Process in respect to institutional, legal and economic frameworks, the sector-wise coordination and the Monitoring Framework.

### **The Integrated Management Process:**

The management processes are carried out within the parameters defined by the Integrated Management Frameworks.

The Integrated Management Process must be seen as a road map towards achieving the goal of conserving the outstanding universal value of Lumbini, the Birthplace of the Lord Buddha. The management process was developed through consensus of the concerned authorities. Discussions have been held since 2006 with a series of specific workshops having been carried out between August 2011 and January 2012.



## 1.2 DEFINING THE PROPERTY

The property has been defined through the **Statement of Outstanding Universal Value (OUV) prepared by the State Party and adopted by the World Heritage Committee.**

**Name of the property:** Lumbini, the Birthplace of the Lord Buddha

**Date of Inscription:** 1997

### **Brief Synthesis:**

Siddhartha Gautama (Sakyamuni Buddha) was born in 623 BC in the garden of Lumbini located in the Terai plains of mid-western Nepal, testified by the inscription on the pillar erected by the Mauryan Emperor Asoka in 249 BC. Lumbini is one of the most sacred places of one of the world's great religions, and its remains contain important evidence about the nature of Buddhist pilgrimage centres from as early as the 3rd century BC.

The complex of structures within the archaeological conservation area includes the Shakya Pond (Pushkarani), the remains within the Mayadevi Temple consisting of brick structures in a cross-wall system dating from the 3rd century BC to the present century and the sandstone Asoka pillar with its Pali language inscription in Brahmi script. Additionally there are the excavated remains of Buddhist viharas (monasteries) of the 3rd century BC to the 5th century AD and the remains of Buddhist stupas (memorial shrines) from the 3rd century BC to the 15th century AD. The site is now being developed as a Buddhist pilgrimage centre, where the archaeological remains associated with the birthplace of the Lord Buddha form a central feature.

### **Criterion (iii):**

As the birthplace of the Lord Buddha, testified by the inscription on the Asoka pillar, the sacred area in Lumbini is one of the most holy and significant places for one of the world's great religions.

### **Criterion (vi):**

The archaeological remains of the Buddhist viharas (monasteries) and stupas (memorial shrines) from the 3rd century BC to the 15th century AD provide important evidence about the nature of Buddhist pilgrimage centres from a very early period.

### **Integrity:**

The integrity of Lumbini has been achieved by means of preserving the archaeological remains that give the property its outstanding universal value within the boundaries. The significant attributes and elements of the property have been preserved. The buffer zone gives the property a further layer of protection. Further excavations of potential archaeological sites and appropriate protection of the archaeological remains are a high priority for the integrity of the site. The boundaries however do not include the entire archaeological area and various sites are found in the buffer zone. The entire property is owned by the Government of Nepal and is being managed by the Lumbini Development Trust established as per the Lumbini Development Trust Act 1985 and therefore there is little threat of development or neglect. However the effects of industrial development in the region have been identified as a threat to the integrity of the property.

### **Authenticity:**

The authenticity of the archaeological remains within the boundaries has been confirmed through a series of excavations since the discovery of the Asoka pillar in 1896. The remains of viharas, stupas and numerous layers of brick structures from the 3rd century BC to the present century at the site of the Mayadevi Temple are proof of Lumbini having been a centre of pilgrimage already from early times. The archaeological remains require active conservation and monitoring to ensure that the impact of natural degradation, influence of humidity and the impact of the visitors are kept under control.

### Management:

The entire site is owned by the Government of Nepal. The site management is carried out by the Lumbini Development Trust, an autonomous and non-profit making organization established as per the Lumbini Development Trust Act 1985. The main archaeological site is protected as per the Ancient Monument Preservation Act 1956. The site falls within the centre of the Master Plan area, the planning of which was initiated together with the United Nations and carried out by Prof. Kenzo Tange between 1972 and 1978.

The long-term challenges for the protection and management of the property would be to control the impact of the visitors, of natural impacts such as humidity and the industrial development in the region. A Management Plan is in the process of being developed to ensure the long-term safeguarding of the archaeological vestiges of the property while allowing for the property to continue being visited by pilgrims and tourists from around the world.

## 1.3 BOUNDARY and BUFFER ZONES

**The World Heritage boundaries of Lumbini, the Birthplace of the Lord Buddha is restricted to an area of 130 by 150 meters around the Asoka pillar. The buffer zone extends to the area within the water body as demarcated in Kenzo Tange's Master Plan. This is part of the Sacred Garden.**

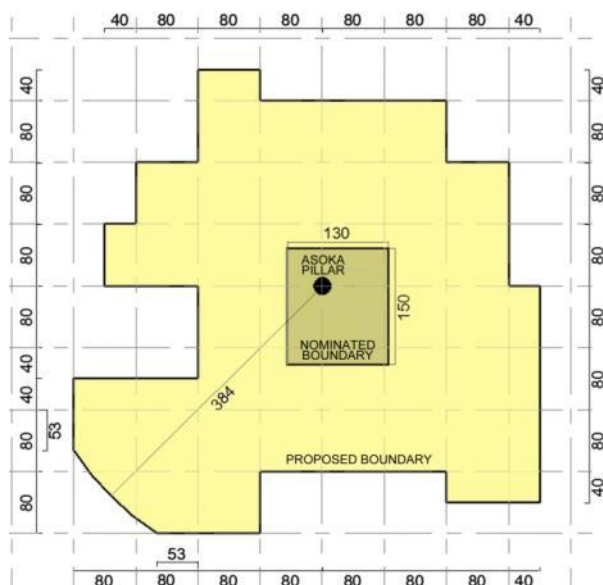
As per the Operational Guidelines for the Implementation of the World Heritage Convention, the delineation of boundaries is an essential requirement in the establishment of effective protection of nominated properties and should be drawn to ensure the full expression of the outstanding universal value and the integrity and/or authenticity of the property. Wherever necessary for the proper conservation of the property, an adequate buffer zone surrounding the nominated property should be provided for, which has complementary legal and/or customary restrictions placed on its use and development. (Operational Guidelines 2005 Para 99/103/104)

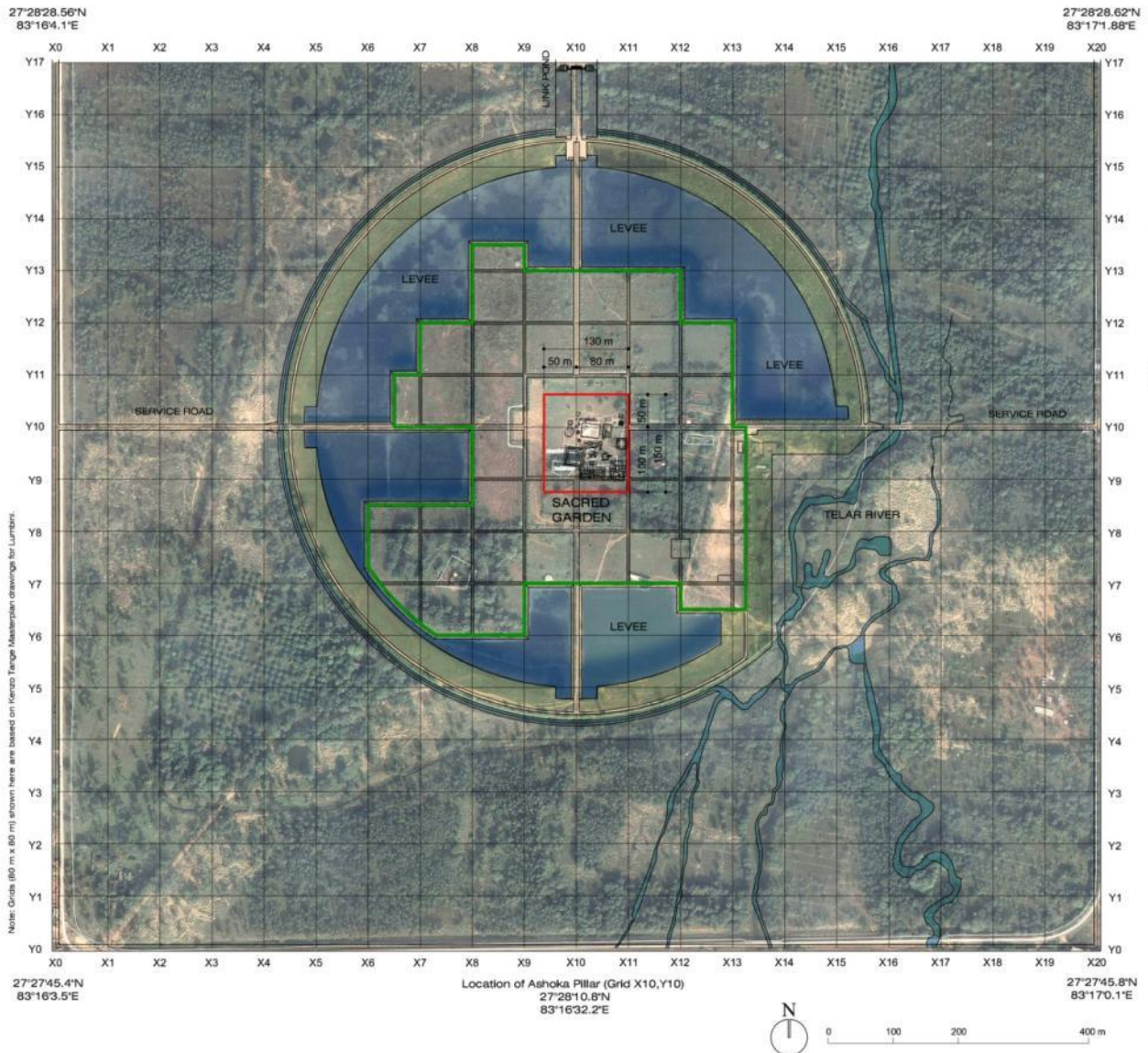
### Boundaries

The World Heritage boundary encompasses an area of 130 by 150 meters which includes the Asoka pillar, the Shakya pond and the archaeological vestiges of viharas and stupas around the Mayadevi temple (monastery). It however does not include extensions of these archaeological sites to the north and the southeast. Furthermore, the boundary does not encompass the village mound towards the southwest.

### Buffer Zones

The buffer zone is defined by the area within the water body as demarcated in Kenzo Tange's Master Plan. At the time of inscription the water body had not yet been excavated. It was assumed that such a radical intrusion within the existing natural surrounds would hardly have been allowed within the World Heritage buffer zone and therefore this area was excluded from even the buffer zone. For the long-term protection of the property, it is essential that the entire Sacred Garden area is protected and shielded from the pressures of inappropriate development.





### Protected Monument Zone

The Sacred Garden of Lumbini, comprising an area of 1600 by 1360 meters, which contains the World Heritage property and the buffer zone, shall be declared a Protected Monument Zone as per the Ancient Monument Preservation Act 1956. This area will be strictly protected from any inappropriate developments, especially those that might threaten the outstanding universal value of the World Heritage property. The site management is carried out by the Lumbini Development Trust, as per the Lumbini Development Trust Act 1985.

Adjoining to the north is the monastic zone of Kenzo Tange's Master Plan. To the east is the straight road from Parsa to Lankapur. To the south is the straight road from Lankapur to Padariya Chowk. To the west is the straight road from Padariya Chowk to Lokaria Chowk.

The coordinates of the four corners of this area are:

- 27°28'28.56"N 83°16'4.10"E
- 27°28'28.62"N 83°17'1.88"E
- 27°27'45.40"N 83°16'3.50"E
- 27°27'45.80"N 83°17'0.10"E

## 1.4 THE LAYERS OF COMPREHENSION

**Due to the universal significance of Lumbini, there are numerous approaches to view and interpret this sacred place. Each of these perceptions is valid and must be incorporated into the overall understanding of the Sacred Garden.**

**1. Lumbini in Buddhist Literature:** The Buddhist texts were first written down in Pali in the 1st century BCE and others followed in Sanskrit and the Tibetan and Chinese translations. Through the centuries further commentaries and embellishments were added. In various texts (such as the Digha Nikaya and the Samyutta Nikaya of the Sutta Pitaka and the Vinaya Vastu) Lumbini is described, interpreted and projected. These texts give a sense of what Lumbini is considered to be from the religious perspective.

**2. Lumbini in Historical Texts:** The early historical documentation of the site is limited to the sketchy texts written by Chinese travellers such as Seng Tsai (350-375 CE), Fa-Hsien (403/409 CE) and Hiuen Tsang (636 CE). Lumbini was re-discovered in 1896 and there is some documentation on the activities carried out during the various phases of early investigations, beautification and the increasingly improved scientific research.

**3. Archaeology and Site Interpretation:** The site itself tells a story that has been unfolding for over two and a half thousand years. This story can be read by interpreting the evidence that has accumulated over time. The potential archaeological sites need to be excavated, analyzed and interpreted by a multi-disciplinary team to widen the understanding of the cultural and natural history of the site.

**4. Kenzo Tange's Master Plan:** The Master Plan defined the concept for the physical plan and extent of the Sacred Garden. A water body and levee defined an inner garden with the main archaeological site around the Asoka Pillar and an outer area left as a natural forest. A grid of service roads was to be provided.

**5. Lumbini as World Heritage:** An area of 130 by 150 meters was inscribed on the List of World Heritage in 1997 with the remaining inner Sacred Garden being the buffer zone. These boundaries clearly do not contain all the attributes of the archaeological site and the entire Sacred Garden of 1360 by 1600 meters must be protected. The conservation approach for Lumbini must be based on the objective of preserving the outstanding universal value of the property.

**6. The Environment of Lumbini:** The Sacred Garden mirrors the importance of the natural environment in the life of Lord Buddha. The physical planning of the Sacred Garden must take into account the historical, religious and existing status of the environment. The "garden" or "forest" must retain a natural balance considering the climate, hydrology, fauna and flora of the region to create a sacred landscape.

**7. Activities in Lumbini:** The site must cater to the desires of pilgrims and tourists, allowing them to carry out various activities. A wide range of activities can be identified, such as to meditate, pray, give offerings, burn lamps and incense, collect soil and leaves, etc. However activities being carried out within the same area and the required facilities could create conflicts between the various groups of pilgrims and might even impact the archaeological remains and sanctity, authenticity and integrity of the sites.

**8. Expectations on Lumbini:** What are the expectations of the pilgrims, the tourists, the managers, the experts and the stakeholders? The expectations are based on some or all of the above mentioned issues and how these issues are going to be addressed to create a harmonious and sacred place. The expectations of the visitor would need to be fulfilled by resolving the conflicting issues and enhancing the cumulative impression created to express the character of the site.

## 1.5 SUSTAINABLE HUMAN DEVELOPMENT

**Sustainable Development must be pursued around Lumbini, the Birthplace of the Lord Buddha, World Heritage property. This means that conservation of cultural and natural heritage must go hand-in-hand with social and economic development, taking into account the needs of future generations.**

### Discussions on Sustainable Development

The Brundtland Commission defined Sustainable Development as, “development that meets the needs of the present without compromising the ability of future generations to meet their own need”. Sustainable Development is considered to be based on the following three policy areas or “pillars”; economic development, social development and environmental protection. There have however been further elaborations done to this definition, namely in respect to the inclusion of culture (or cultural diversity) as an integral part of our environment or even as the fourth pillar of Sustainable Development. By inclusion of culture – especially in respect to heritage conservation – the definition of Sustainable Development embraces a whole new dimension; that of our past. The conservation of “heritage” - be it cultural or natural - reflects the key principle of Sustainable Development; it is the conservation of that which we inherit from the past, which is of value and is worth preserving for future generations. “Value” as utilised here, is the qualitative aspect of “need”, the term referred to in defining Sustainable Development. The four components of Sustainable Development are interdependent and must therefore be understood within their integral framework.

### **Economic Sustainability**

Economic Sustainability is achieved when all people have access to an improved standard of living without impairing future economic development.

### **Social Sustainability**

Social Sustainability is achieved when transformations of social structures improve capacity of societies to achieve their aspirations while retaining their positive features.

### **Environmental Sustainability**

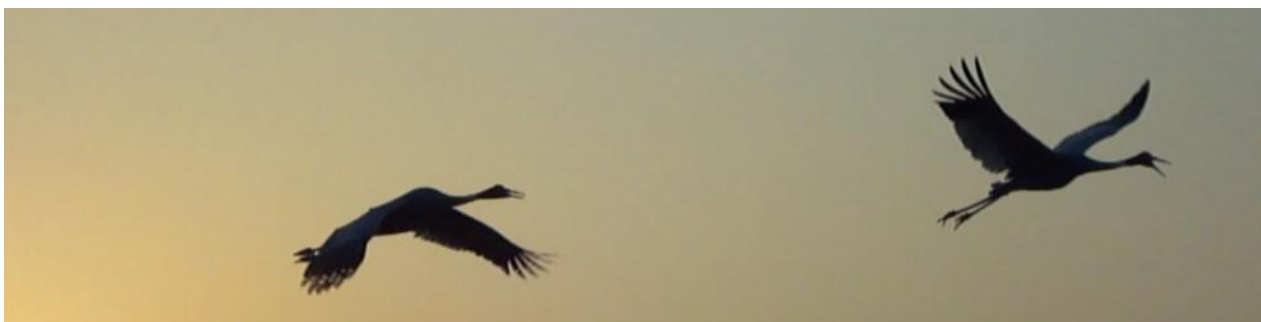
Environmental Sustainability is achieved when the consumption of nature’s resources does not exceed their replenishment.

### **Cultural Sustainability**

Cultural Sustainability is achieved when heritage is conserved without inhibiting the achievement of society’s basic needs.

### **Relevance to Lumbini**

Lumbini, the Birthplace of the Lord Buddha World Heritage property is under great pressure to change. This change needs to be directed along the principles of Sustainable Development while ensuring the maintenance of the OUV. This means that conservation of cultural and natural heritage must go hand-in-hand with social and economic development, taking into account the needs of future generations.



# 1.6 OBJECTIVES OF THE IMP

## 1.6.1 OBJECTIVE STATEMENT

**The primary objective of the Integrated Management Process of Lumbini, the Birthplace of the Lord Buddha is to protect the Outstanding Universal Value of the World Heritage property as well as to ensure that Lumbini becomes the catalyst for the sustainable development of the Historic Buddhist Region.**

*A Management plan can be understood as an operational instrument to utilize available resources to protect defined OUV, while responding to circumstances in the given context.*

The principles that are to be observed in achieving the management goals are:

### **Significance-driven**

The concern for the conservation of the significance of the site is at the core of decision-making and must be balanced against the interests of other sectors.

### **Integrated approach**

The integrated management will follow a systemic and holistic approach to conservation, taking into account the significance of the monuments, the cultural and natural context within which they are found and the living heritage that lends them their local value.

### **Process oriented**

The integrated management will focus on the processes and linkages between the components of the site and the various actors to allow realistic long-term implementation.

### **Sustainability**

The integrated management will be prepared and implemented based on an understanding of sustainability: economic, social, environmental, as well as cultural.



## 1.6.2 KEY OBJECTIVES

### The following are the Key Objectives for the Management of Lumbini

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**OBJECTIVE 1:** To identify the attributes and elements that give Lumbini its outstanding universal value, define authenticity and integrity for the site and possibly redefine the boundaries and buffer zones.

**OBJECTIVE 2:** To prepare a plan that provides guidelines and regulations for the physical development of the entire Sacred Garden which ensures the preservation of its OUV, provides for the requirements of pilgrims and visitors, an appropriate environment and identifies the means of implementing the plan.

**OBJECTIVE 3:** To determine an appropriate long term solution for safeguarding the archaeological vestiges in and around the Mayadevi temple which includes an in-depth understanding of the threats to the archaeological remains and appropriate provisions for pilgrims and to identify the means of implementing this solution.

**OBJECTIVE 4:** To carry out detailed archaeological investigations of highest scientific standard including documentation and analysis, provide appropriate and adequate means of conserving the archaeological remains within the Sacred Garden and where necessary throughout the Master Plan area, and to identify the means of implementing these projects.

**OBJECTIVE 5:** To provide for the needs of the pilgrims taking into account the impact these activities and required facilities have on other visitors, the archaeological remains and the authenticity and integrity of the Sacred Garden and to identify the means of implementing these provisions.

**OBJECTIVE 6:** To determine the means of implementing the Kenzo Tange Master Plan, as the basis for defining the

development in the five by five mile area around the World Heritage property.

**OBJECTIVE 7:** To redefine the Lumbini World Heritage Site boundaries and buffer, considering the preparation of the Tentative List sites of Tilaurakot and Ramagram for nomination, placing further important Buddhist sites on the Tentative List.

**OBJECTIVE 8:** To carry out archaeological research and conservation throughout the Historic Buddhist Region, stretching from Kapilvastu, to Rupendehi and Nawalparasi, establish an Integrated Plan and provide for the implementation of the plan.

**OBJECTIVE 9:** To identify means of ensuring the appropriate development of the Historic Buddhist Region by prioritizing conservation.

**OBJECTIVE 10:** To facilitate strategies for poverty alleviation of the local communities and to develop tourism and pilgrimage by means of improving facilities, services, infrastructure and accessibility of heritage sites in the Historic Buddhist Region.

**OBJECTIVE 11:** To ensure the serenity and sanctity of the Buddhist sites in and around Lumbini by protecting the environment, controlling the threat of natural disasters and introducing legal provisions and means of enforcing them.

**OBJECTIVE 12:** To establish coordination between all international partners, the national authorities and the site managers.

**OBJECTIVE 13:** To clarify that Lumbini Development Trust is responsible for the management of the World Heritage property.

## 2. INTEGRATED MANAGEMENT FRAMEWORK

### 2.1 INSTITUTIONAL FRAMEWORK

#### 2.1.1 THE AUTHORITIES AND THE SITE MANAGER

The “State Party” is represented by the Department of Archaeology, under the Ministry responsible for Culture. Lumbini Development Trust is the World Heritage Site Manager.

##### Central Government (Focal Point)

The authority within the central government that is responsible for heritage conservation (and the World Heritage Site) is the *Department of Archaeology* (DoA), under the Ministry responsible for Culture. The *World Heritage Conservation Section* of the Department of Archaeology deals exclusively with cultural World Heritage (Kathmandu Valley and Lumbini) and coordinates with the Site Managers.

##### World Heritage Site Managers

The responsibility of Site Management has been given to the Lumbini Development Trust. The Lumbini Development Trust has also the responsibility of managing the entire Lumbini Development Area which encompasses archaeological sites stretching out in three districts – Kapilvastu, Rupendehi and Nawalparasi.

The responsibility of managing the World Heritage property shall be specifically taken by the Lumbini Development Trust. The chain of command, the communication system and the reporting procedures shall be identified and documented to ensure the required coordination amongst all offices within Lumbini Development Trust.

##### Historic Buddhist Region

The governance of the Historic Buddhist Region shall be carried out under special provisions adopted by the Government of Nepal. Development shall take place based on the concept of conserving the heritage sites, particularly the numerous archaeological sites in the region. An appropriate system of governance shall be established to ensure the sustainable development of the regions spanning across the three districts of Kapilvastu, Rupendehi and Nawalparasi.

##### Responsibilities of the Lumbini World Heritage Site Management:

- ♦ To identify the attributes and elements that give Lumbini its outstanding universal value, including its authenticity and integrity.
- ♦ To coordinate the implementation of the applicable legislation and the guidelines for the physical development of the Sacred Garden;
- ♦ To monitor the archaeological remains within the Sacred Garden;
- ♦ To monitor and manage the pilgrims and visitors within the Sacred Garden;
- ♦ To carry out weekly monitoring and prepare weekly monitoring reports;
- ♦ To review and revise the Plan of Action and prepare Annual Action Plans;
- ♦ To carry out risk management and emergency response to disasters;
- ♦ To coordinate with all relevant “actors” within the WH area and the Sacred Garden, in particular with the Department of Archaeology;
- ♦ To maintain close communication with the World Heritage Centre and the UNESCO Office in Kathmandu;
- ♦ To maintain a documentation centre including the maintenance of a database of all communications linked to World Heritage;
- ♦ Prepare, coordinate and submit required reports to the World Heritage Centre as requested by the World Heritage Committee;

The Site Managers need to be given adequate capacity, training and resources to be in a position to fulfil their tasks.



## 2.1.2 ASSOCIATED AUTHORITIES

There are government authorities from other sectors that carry out work in the Historic Buddhist Region. Through the adoption of the Integrated Management Framework by the Government of Nepal at cabinet level, associated authorities (ministries, departments and line agencies) are made party to the implementation of the Integrated Management Process. The Government of Nepal will notify all associated authorities, simultaneously establishing a consultation and conflict resolution process.

### Associated Authorities

The elected local bodies (Municipalities and VDCs), that are the key authorities in respect to Site Management fall under the *Ministry responsible for Local Development*.

The *Ministry responsible for Urban Development* and the *Ministry responsible for Physical Planning* are responsible for physical planning, infrastructure development and land use as well as the enforcement of laws pertaining to building regulations in the private realm.

The *Chief District Officer*, who comes under the *Ministry responsible for Home Affairs*, is responsible for the local Police force and is involved in the enforcement of the building regulations and dealing with other legal issues.

Land transactions and registration is dealt with by the *Department of Survey* and the *Department of Land Reform and Management* under the *Ministry responsible for Land Reform and Management*.

*Ministry responsible for Law and Justice* is the responsible authority to clarify contradictions and overlapping authority found in the legislation. The ministry also needs to clarify the conflict between conservation laws and the rights of the individual house and land owners.

Tourism is one of the main sources of income for heritage properties and tourism is dealt with by the *Ministry responsible for Tourism* and the *Nepal Tourism Board*.

In respect to the conservation of the natural environment, the following government organizations are involved; the *Department of*

*Forests* under the *Ministry responsible for Forests*, and in respect to policies conserving environmental management the *Ministry responsible for Environment*.

Various development and infrastructure projects are carried out by the *Department of Roads*, the *Department of Water Supply and Sewerage* and the *Department of Urban Development and Building Construction* (amongst its functions are: “Conserve and develop the areas having religious, cultural and touristic importance” and “Carry out works related to conservation of urban environment”).

Infrastructure and service projects are also carried out by the line agencies. This would in particular mean the *Nepal Electricity Authority*, the *Nepal Telecommunication Authority* and the *Water Supply Corporation*.



### 2.1.3 INTERNATIONAL INVOLVEMENT

The international community has been involved in Lumbini since its re-discovery in the late 19<sup>th</sup> century. With the inscription of Lumbini on the List of World Heritage, the international community has a further responsibility for safeguarding the outstanding universal value of the property

#### The United Nations System

U. Thant, UN Secretary General, who visited Lumbini in 1967 called upon the International Community to help develop Lumbini. This led to the establishment of the International Committee for the Development of Lumbini, formed under the auspices of the United Nations in 1970 (comprising of Afghanistan, Bangladesh, Bhutan, Cambodia, India, Indonesia, Japan, the Lao People's Democratic Republic, Malaysia, Myanmar, Nepal, Pakistan, the Republic of Korea, Singapore, Sri Lanka and Thailand).

Under this organizational setup, in 1972 Kenzo Tange was commissioned to prepare the Master Plan for the Development of Lumbini which was finalized in 1978 (Phase II). Work started with major contributions from UNDP and the Japan EXPO Foundation. According to the initial schedule, all major construction works were to be completed by 1985. However due to lack of resources with dwindling interest by the international organizations and poor management, progress was slow.

The UN system however continued to be involved in a drastically reduced form. UNDP has more recently funded projects such as the development review mission in 1999 and the TRPAP project. Since 2005 there have been various efforts to revive the International Committee.

Lumbini was put on the List of World Heritage in 1997, whereby the International community contributes to the safeguarding of the outstanding universal value of the property.

***The Government of Nepal shall support the establishment a Secretariat to coordinate all activities with international involvement in the Historic Buddhist Region.***

#### International Contributions

There was International involvement in various projects that were carried out such as the Library building and the Museum, both completed in 1989. The Pilgrim Accommodation was completed in 1986 (but was never operational). There was further international involvement in the construction of the Hokke Hotel, the Peace Stupa and in the excavation of the Sacred Garden. However International involvement reduced to the implementation of the individual sites in the Monastic zone.

***The Government of Nepal shall support international involvement in implementing the Master Plan of Kenzo Tange, however ensuring that all works comply with the spirit and the detailing of the Master Plan.***



#### International Archaeological Research

International Cooperation in finding, studying and developing Lumbini goes back to 1896 when experts with various nationalities were involved in identifying the location of Lumbini. Various excavations, surveys and research have been carried out in partnership with international teams.

***The Government of Nepal shall continue supporting appropriate archaeological research to be carried out together with reputed and qualified international partners.***

## 2.2 LEGAL FRAMEWORK

### 2.2.1 LEGISLATION AND LEGAL PROVISIONS

**The Lumbini Development Trust Act (1985) is a specific act for the implementation of the Lumbini Development Plan and management of all sites directly or indirectly related to the life of Buddha. The principle Act relevant to the conservation of heritage is the Ancient Monument Preservation Act (1956). There are various other Acts that directly or indirectly address heritage conservation issues, which should augment - however often contradict - the principle Act.**

#### **Lumbini Development Trust Act 1985 – Third Amendment 1996**

The Lumbini Development Trust Act (LDTA) 1985 is an Act made to provide for the *Lumbini Development Trust (LDT)*. The Act has been amended in 1991, 1993 and the third amendment was made in 1996. LDT is a non-profit making institution, an autonomous and corporate body with perpetual succession. The LDTA is a specific act for the implementation of the Lumbini Development Plan which would encompass the Lumbini Development Area which includes places directly or indirectly related to the life of the Lord Buddha, stretching from Kapilvastu, through Rupendehi to Nawalparasi. The Objectives of LDT is to obtain funds, provide funds for implementation and check on the proper utilization of funds. LDT may introduce changes in the work plan if so deemed necessary in the interest of the Plan. LDT may establish committees and subcommittees to implement their work while keeping close relationship with the Government.

The *Lumbini Monastic Zone Bylaws 2002* provides for development controls for the construction of monasteries within the Monastic Zone of the Lumbini Master Plan area.

*The Lumbini Development Trust Act shall be amended to include provisions for the Lumbini Development Trust to function as the Site Manager of a World Heritage property. These provisions would include strict adherence to conservation principles.*

#### **Ancient Monument Preservation Act 1956 - Fifth Amendment 1996**

The legislation for the conservation, protection and management of cultural property is based on the *Ancient Monument Preservation Act (AMPA) 1956*, its subsequent amendments (the latest having been the fifth amendment in 1996) and the *Ancient Monument Preservation Rules 1988*. The Ancient Monument Preservation Act gives the *Department of Archaeology* the legal provisions to declare a monument or area to be a *Protected Monument Zone (PMZ)*. The Department of Archaeology is subsequently responsible for the protection of the site, including controlling all archaeological excavation works, the prescription of building bylaws, approving requests for building permits and for any other construction activities within the zone.



## **2.2.2 CONSERVATION AND DEVELOPMENT GUIDELINES**

The Guidelines for the Physical Plan of the Sacred Garden of Lumbini was prepared in cooperation with all relevant authorities, stakeholders and experts.

### **PART A. Guidelines to protect the World Heritage property and its outstanding universal value**

#### **1 Safeguard the attributes that convey the OUV of the property**

The outstanding universal value of the property will be safeguarded, by managing the attributes that convey OUV and ensuring the authenticity and integrity of the property. Highest level of national and international protection shall be provided for the World Heritage property.

#### **2 Extent of World Heritage boundary**

The existing World Heritage boundary is to be extended to cover the entire Inner Sacred Garden and all archaeological sites within the entire Sacred Garden area and planning will be carried out taking this into consideration.

#### **3 Extent of buffer zone to World Heritage and its protection**

The buffer zone to the World Heritage property is to be extended to encompass the entire Outer Sacred Garden and planning will be carried out taking this into consideration.

#### **4 Protection through “Zones of Influence”**

The “Zone of Influence” will be considered as the Lumbini Development Area of 5 x 5 mile as per Kenzo Tange’s Master Plan and this area will be planned and required legislation put in place to ensure appropriate development that does not impact the integrity of the World Heritage property in any manner such as the degradation of archaeological material through pollution.

#### **5 Provisions for Serial Nomination**

Provisions shall be made to allow for extension of the property to include further Buddhist sites in the districts of Kapilvastu,

Rupendehi and Nawalparasi in the form of a serial nomination.

#### **6 The site manager of the World Heritage property**

The site manager shall be the Lumbini Development Trust, with the specific responsibility to coordinate all affairs related to managing, monitoring and reporting on the World Heritage Property.

#### **7 Heritage Impact Assessment**

All development activities that are undertaken within the Sacred Garden area shall have to pass a Heritage Impact Assessment.

### **PART B. Guidelines to address the Kenzo Tange Master Plan**

#### **8 Consideration of the atmosphere in the Sacred Garden**

The Sacred Garden is to have an atmosphere of tranquillity, universality and clarity.

#### **9 Boundaries of Sacred Garden as defined in Kenzo Tange’s Master Plan**

The Sacred Garden is to be defined as per the area indicated in Kenzo Tange’s Master Plan (1600 x 1360 meters)

#### **10 Consideration of the provisions for roads within Inner Sacred Garden**

The concept of an abstract grid system of access roads as per the Kenzo Tange’s Master Plan can be considered in areas where there are clearly no potential archaeological sites, however with appropriate paving materials.

#### **11 Consideration of the provisions for the archaeological site**

The provisions defined in Kenzo Tange’s Master Plan for the archaeological site shall be taken as the basis for all planning done within the Sacred Garden. However no

activities shall be allowed that cause any kind of damage or affects the archaeological vestiges.

**12 Consideration of the approach to the Sacred Garden**

The main approach to the Sacred Garden for visitors will be from the north.

**13 Consideration of controlling flooding**

The planning of the Sacred Garden will ensure that flooding and ground water table is controlled to safeguard the archaeological vestiges.

**14 Consideration of existing and new structures within the Sacred Garden**

All planning in respect to existing structures and new structures within the Sacred Garden shall follow the provisions in Kenzo Tange's Master Plan, however provide basic reversible facilities.

**PART C. Guidelines to ensure an appropriate and sustainable environment**

**15 Ensuring an appropriate natural setting within the Sacred Garden**

The natural setting within the Sacred Garden shall take into account the spiritual context of the birthplace of Lord Buddha as a place of pilgrimage.

**16 Ensuring the protection of wildlife and their habitat around the Sacred Garden**

Wildlife and their natural habitat will be strictly protected in the Sacred Garden, in Kenzo Tange's Master Plan area as well as the surrounding region.

**17 Ensuring appropriate plantations within the Sacred Garden**

The plantations within the Sacred Garden shall take into account the indigenous species of plants and it will be ensured that the plantations are not mono-cultures.

**18 Ensuring protection of river ecosystems around the Sacred Garden**

The river ecosystems of the Harhawa and Telar rivers that flow through the Sacred Garden will be protected in respect to water

management and pollution right from their sources.

**19 Provisions for an integrated conservation approach for the region**

A regional conservation approach for natural and cultural resources will be established and implemented for the districts of Kapilvastu, Rupendehi and Nawalparasi involving national and international stakeholders.

**20 Ensuring pollution-free environment in and around the Sacred Garden**

Strong measures will be put in place to make the Sacred Garden a pollution-free zone and all polluting activities must be stopped within the Sacred Garden and it must be assured that the external polluting activities do not impact the Sacred Garden.

**21 Provisions for alternative energy sources**

To ensure a pollution free area, alternative energy sources will be prioritized, however ensuring that there is no adverse impact on the property which would also include any visual impact.

**PART D. Guidelines to conserve the archaeological vestiges**

**22 Safeguarding the testimony to the Birthplace of Lord Buddha**

The protection of the archaeological vestiges that are testimony to Lumbini being the birthplace of Lord Buddha and a site of pilgrimage that spans a period of over 2 millennia is non-negotiable.

**23 Standardization of the phases of development of Lumbini in antiquity**

The phases of development and linked historic periods are to be standardized to ensure a coherent understanding of the property for purposes of research, interpretation and presentation.

**24 Standardization of the categories of monuments at Lumbini**

The categories of monuments are to be standardized to ensure a coherent understanding of the property for purposes

of research, interpretation and presentation.

**25 Activities and interventions to be non-intrusive**

All activities and interventions within the Sacred Garden are to be non-intrusive to the archaeological vestiges.

**26 Activities and interventions to be reversible**

All activities and interventions within the Sacred Garden are to be reversible without causing any damage to the archaeological vestiges and the integrity of the site.

**27 Shelters for archaeological vestiges**

Shelters, whether permanent or temporary, will only be provided for the most significant archaeological vestiges and only if found to be essential for their long-term conservation and if developed in an appropriate manner.

**28 Archaeological vestiges to remain visible**

The exposed archaeological vestiges are to remain visible to visitors and provisions are to be made for any future archaeological structures to be kept exposed and visible for visitors as long as it does not compromise their long-term conservation.

**29 Clear and truthful interpretation to be provided for visitors**

The archaeological vestiges are to be presented to the visitors in a clear and truthful manner.

**30 Restriction of access onto the archaeological monuments**

Access onto all monuments will be restricted and clearly defined paths and areas will be provided for the visitors and pilgrims.

**31 Provisions for worship and meditation**

Provisions are to be made for worship and mediation which fulfils the requirements of the pilgrims however ensuring the protection of the archaeological vestiges.

**32 Quality and the use of appropriate materials within the Sacred Garden**

Any new construction that takes place within the Sacred Garden will be carried out ensuring good quality and using appropriate materials - with the exception of stone – however these materials must clearly be distinguishable from the archaeological structures.

**PART E. Guidelines to provide facilities and services for visitors / pilgrims**

**33 Provisions for visitor/ pilgrim facilities and services within the Inner Sacred Garden**

Facilities and services shall be provided within the Inner Sacred Garden for the visitor's general requirements that however do not compromise on the sacred atmosphere, harmony, beauty and authenticity of the site and on safeguarding the archaeological vestiges. All such facilities and services must be non-intrusive and reversible.

**34 Removal of inappropriate visitor / pilgrim facilities within the Inner Sacred Garden**

Existing facilities that are inappropriate for the Inner Sacred Garden shall be removed or relocated to a suitable location. All rubble shall be removed from the entire Sacred Garden area. These would be facilities that are not in harmony and not compatible to the natural, historic, religious and archaeological setting.

**35 Provisions for visitor / pilgrim facilities and services within the Outer Sacred Garden**

Facilities and services shall be provided within the Outer Sacred Garden for the visitor's general requirements that however do not compromise on the harmony of the natural setting and ensure a pollution-free environment. Appropriate waste disposal shall be ensured.

**36 Removal of inappropriate visitor facilities within the Outer Sacred Garden**

Existing facilities that are inappropriate for the Outer Sacred Garden shall be removed

or relocated to a suitable location. All rubble shall be removed from the entire Sacred Garden.

**37 Provisions for visitor services outside the Sacred Garden**

Visitor facilities and services where possible will be provided outside the Sacred Garden.

**PART F. Guidelines to regulate activities within the Sacred Garden**

**38 Provisions for appropriate activities in the Inner Sacred Garden**

Provisions will be made to allow for appropriate activities in the Inner Sacred Garden nevertheless ensuring the sanctity, harmony and purity of the site. Appropriate activities could be considered those that are very essential for the performance of religious practices, for the preservation and presentation of archaeological vestiges, for the circulation of visitors and pilgrims and for protection and security measures.

**39 Controlling of inappropriate activities within the Inner Sacred Garden**

Provisions will be made to control inappropriate activities in the Inner Sacred Garden to ensure the sanctity, harmony and purity of the site and to safeguard the archaeological vestiges. Inappropriate activities could be considered those that threaten the tranquillity, sanctity and authenticity of the site.

**40 Provisions for appropriate activities in the Outer Sacred Garden**

Provisions will be made to allow for appropriate activities in the Outer Sacred Garden to enhance the experience of the natural environment and to reduce the visitor pressure on the Inner Sacred Garden. Appropriate activities could be considered those that are very essential for the performance of religious practices, for the presentation of archaeological vestiges, for the circulation of visitors and for protection and security measures.

**41 Controlling of inappropriate activities within the Outer Sacred Garden**

Provisions will be made to control inappropriate activities in the Outer Sacred Garden to ensure the peace, cleanliness and harmony of the natural environment. Inappropriate activities could be considered those that threaten the tranquillity, sanctity and authenticity of the site.

**42 Balance pilgrim activities and archaeological conservation**

All decisions shall be taken based on the understanding for the need to balance the activities of the pilgrims with the need to conserve and protect the archaeological vestiges of the site.

**PART G. Guidelines to control inappropriate development**

**43 Control inappropriate development within the Sacred Garden**

No development works shall be carried out within the entire Sacred Garden other than what is absolutely necessary to conserve the property and provide basic facilities for the visitors/pilgrims, however such activities must be non-intrusive and with a detailed plan for reversibility.

**PART H. Guidelines to promote continued research and discourse**

**44 Developing Lumbini as a Centre for Buddhist Studies**

Lumbini shall be promoted as a Centre for Buddhist Studies.

**45 Developing Lumbini as the Global Centre for Conservation Ethics**

A Global Centre for Conservation Ethics is to be established to expose and help internalize conservation ethics that is needed to heal and care for the earth.

**46 Promote research on the archaeological sites in the region**

Research on the archaeological sites in the region spanning from Nawalparasi to

Kapilvastu districts will be promoted to gain better understanding on the regions ancient history and their linkages to Lumbini.

**47 Research on potential archaeological sites in the Sacred Garden**

Research on identifying, evaluating and interpreting the physical signature of Lumbini and Associated Sites will be implemented to allow for better presentation, management and long-term protection.

**48 Identification of issues and challenges facing archaeological conservation**

The long-term issues and challenges facing archaeological conservation must be identified and appropriate responses found

based on the most advanced knowledge and technology.

**49 Establishment of Consultation processes**

Processes shall be put in place to ensure the cooperation and collaboration of all stakeholders in partaking in an appropriate development of the region to ensure the safeguarding of the cultural, natural and spiritual heritage in and around Lumbini.

**50 Establishment of Documentation Centre**

A documentation centre will be established for all forms of documentation on the cultural and natural heritage of the historic Buddhist Region spanning from Nawalparasi to Kapilvastu.





### **2.2.3 REGIONAL PLANNING AND DEVELOPMENT CONTROLS**

There are various legal provisions for authorities to control development in the area surrounding the 1 x 3 mile Lumbini Project Area. The various forms of local government under the Ministry responsible for Local Development are provided for by the Local Self-Governance Act (1999). The overall regional planning with focus on the urban sector comes under the Town Development Committee, provided for by the Town Development Act 1988.

Through the adoption of the Integrated Management Framework by the Government of Nepal at cabinet level, associated authorities (ministries, departments and line agencies) are made party to the implementation of the Integrated Management Process. The Government of Nepal will notify all associated authorities, simultaneously establishing a consultation and conflict resolution process.

#### **Local Self-Governance Act (1999)**

The Local Self-Governance Act (LSGA) 1999 is the principle act for the decentralization of powers to the ***District Development Committees (DDC)***, the ***Municipalities*** and the ***Village Development Committees (VDC)***. The LSGA gives the elected local government bodies the function and duty - to varying degree- to record, maintain and preserve the tangible and intangible heritage within their area of jurisdiction. Without detailed differentiation, these provisions may conflict with the AMPA.

Under the LSGA, the municipalities are given the mandatory function and duty to prepare an inventory of the culturally significant places and maintain and protect them. In respect to the physical development, the municipalities must prepare a land-use map and must approve the design permits. The wards of the municipalities are given the functions, duties and powers to *help* preserve monuments and important sites within their ward.

The LSGA gives the VDCs limited functions, duties and powers, and these are not specified as being mandatory. The involvement of VDC in physical planning and conservation is less concrete. They are responsible for keeping records, maintaining and preserving religious and cultural places, as well as for preserving languages, religions and culture. The VDCs are also to prepare *criteria* for houses, buildings, roads and other physical infrastructures to be constructed within the village development area, and to grant approval for their construction.

#### **Town Development Act (1988)**

The Town Development Act (TDA) 1988 mainly deals with the reconstruction, extension and development of towns. In order to implement town planning in any particular area, the TDA allows for the formation of ***Town Development Committees (TDC)***. The TDA includes regulations for the reconstruction and extension of the area of a town, for fixing land-use zones, preparing bylaws, demolishing unauthorized construction and setting standards for physical development. Through the LSGA most of these responsibilities have been transferred to the municipalities.

#### **National Building Code**

The National Building Code, which was initially prepared in 1994, has recently come into effect and the municipalities have started enforcing the code.

The negative impact for the conservation of heritage buildings has been the interpretation that historic load bearing structures do not have adequate stability and all new construction needs to be reinforced concrete frame structures. The code emphasizes seismic stability; yet clearly makes provisions for load bearing masonry structures.

#### **Other Legal Issues**

Environment Protection Act 1997

Tourism Act 1978

Industrial Enterprises Act 1992

## **2.3 ECONOMIC FRAMEWORK**

**The Government of Nepal shall ascertain the funds required to administer the World Heritage property and to ensure the proper conservation and maintenance of the facilities in the Sacred Garden. Funds for research, training and improvement of facilities within the Sacred Garden can be augmented through international partnerships and funding agencies.**

**The planning of the areas surrounding the Sacred Garden, especially within the Master Plan area needs bylaws which are strictly enforced with the help of subsidies, incentives and where necessary fines. Funds must be made available for possible expropriation of property in critical locations.**

**The sustainable conservation and protection of the heritage sites and archaeological vestiges is closely linked to the economic development of the region. The socio-economic development of the local community must be a priority in regional development plans.**

### **Administrative Expenses**

The Lumbini Development Trust shall ascertain the funds required to cover administrative costs for the implementation of the Integrated Management Process. This would include the funds required for the management of the Lumbini World Heritage Property to carry out their full spectrum of responsibilities as defined in section 2.2.1 of this document. The Government of Nepal shall also provide the funds required by the Department of Archaeology to carry out their responsibilities in Lumbini under the Ancient Monument Preservation Act.

### **Conservation and Maintenance Funds**

The Government of Nepal shall ensure sufficient funds for proper protection of the archaeological vestiges and the maintenance of the facilities within the Sacred Garden.

### **Improvement of Facilities, Research and Training**

Funds required for research, training and improvement of the facilities within the Sacred Garden can be augmented through international partnerships and funding agencies. There should however be strict control over the activities to ensure that these do not have a negative impact on the World Heritage property.

### **Funding for Development within Project Area of Kenzo Tange's Master Plan**

Sustainable funding mechanisms such as internal sources and partners are required to augment the annual budget provided by the Government of Nepal for the implementation of the designs prepared by Kenzo Tange for the Project Area (1 x 3 mile area).

### **Planning within the Master Plan Area**

The planning of the restricted areas and the agricultural buffer zones (within the 5 x 5 mile area) must be carried out using legal instruments augmented by the use of subsidies and incentives. These would need to be closely linked to the taxation and fees that are to be imposed on planning areas. The financial involvement of the community is essential for the sustainability of conservation projects, however this should be closely linked to incentives provided and facilitated by the government (tax reductions, grants and soft loans). A means of providing incentives would be free technical assistance.

### **Planning the Historic Buddhist Region**

The sustainable development of the Historic Buddhist Region will depend on the socio-economic development of the local community. The surrounding communities must see a benefit from conserving the heritage sites. This clear link needs to be created between the conservation of the archaeological vestiges in the region and the economic possibilities for the local community.

## 3. IMPLEMENTATION

### 3.1 INSTITUTIONALISATION

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As party to the World Heritage Convention, the Government of Nepal is obliged to ensure the long-term safeguarding of the values of their World Heritage properties. As per article 108 of the Operational Guidelines for the Implementation of the World Heritage Convention, “*Each nominated property should have an appropriate management plan or other documented management system which must specify how the Outstanding Universal Value of a property should be preserved, preferably through participatory means.*”

The implementation of the Integrated Management is an ongoing process that requires regular review, amendment and detailing of action plans. It is therefore necessary to institutionalize this process and guarantee its continuation. This requires the State Party to establish the necessary institutional, legal and economic frame work for the implementation of the Integrated Management Process.

#### 3.1.1 ESTABLISHMENT OF FRAMEWORKS

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Through the adoption of the Integrated Management Framework for Lumbini, the Birthplace of the Lord Buddha World Heritage property, it is understood that the Government of Nepal has in principle adopted the institutional, legal and

economic frameworks as defined in this document. The Government of Nepal shall carry out the necessary procedures to legally establish these frameworks and ensure their continuity as per the conditions laid down in this document.

#### 3.1.2 ESTABLISHMENT OF PROCESSES

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##### **For the Sacred Garden**

To ensure an efficient and effective management of the heritage property, it is necessary to clearly define all essential management processes. These would include but not restrict themselves to the following procedures for decision-making and implementation within the Sacred Garden:

- for any kind of construction work
- for any kind of archaeological work
- for any kind of conservation work
- for visitor management
- for providing services
- for monitoring
- for maintenance

These processes need to be strictly adhered to by the Site Manager and related authorities. Each step in the process would need to identify who carries out what action, what information is passed on, why it is necessary and how long it would take.

##### **For areas around the Sacred Garden**

Clear processes need to be defined to control development in the areas surrounding the Sacred Garden, to ensure that the outstanding universal value of the World Heritage property is safeguarded. These would include but not restrict themselves to the following procedures for decision-making and implementation in the areas surrounding the Sacred Garden:

- for controlling pollution
- for controlling tall buildings
- for controlling traffic
- for controlling flooding

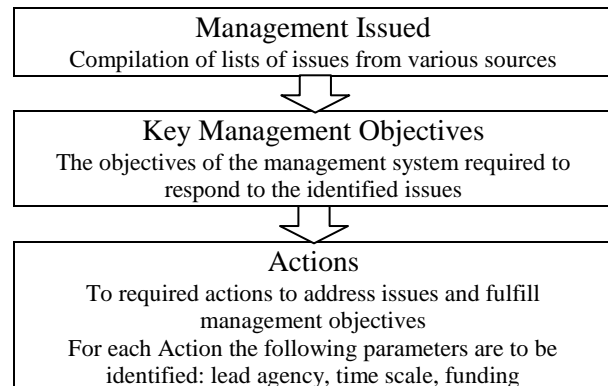
Further processes would be required once an appropriate mechanism is established to ensure the sustainable development of the surrounding region stretching across the three districts of Kapilvastu, Rupendehi and Nawalparasi.

### 3.1.3 PLAN OF ACTION

**The Plan of Action is a formulation of specific tasks that need to be accomplished to achieve the Key Objectives of the Integrated Management Process. These tasks or actions are planned taking into account the implementing authority, the time scale and funding sources.**

The Integrated Plan of Action is a component of the Integrated Management Process for Lumbini, the Birthplace of the Lord Buddha. The Integrated Plan of Action is to be taken as the working document for strategic planning to implement the Integrated Management Process.

The Integrated Plan of Action is comprised of a compilation of issues and key objectives for the integrated management of the Sacred Garden and the World Heritage property of Lumbini. Based on the key objectives, an overall Plan of Action considering short, medium and long-term activities is formulated. For each of the specific actions lead agency, time scale and funding would need to be identified. *The actions must take into account all the provisions of the Conservation and Development Guidelines.*



This document would need to be reviewed and revised annually and should be the basis for strategic planning for the integrated management of the Sacred Garden, as well as the linked heritage sites in the surround Historic Buddhist Region.

### 3.1.4 ANNUAL ACTION PLAN

**The Annual Action Plan is prepared to correspond the Nepali Fiscal Year, which begins mid-July. The Annual Action Plan formulates all the activities that have been planned out in detail for the heritage site during the respective 12 month period.**

The Annual Action Plan must be seen as a planning tool and not merely as an annual financial proposal. The preparation of the Annual Action Plan must begin 3 months before the beginning of the following fiscal year. The progress of the previous Annual Action Plan must be assessed, the Plan of Action reviewed and the next Annual Action Plan prepared. The Annual Action Plan will be prepared by Lumbini Development Trust in close collaboration with the Department of Archaeology.

Each of the Actions must be clearly defined in respect to:

- the reason for prioritization;
- the implementation process;
- the projected outcome;
- the financial resources;
- the timeframe;
- the implementing agency;

The individual **prioritized actions** for the following Annual Action Plan would be based on the revised Plan of Action, which provides a holistic view of all the required actions to achieve the key objectives of the Integrated Management Process. The actions for which financing is available, are then included in the Annual Action Plan.

The Annual Action Plan may also include actions that have been placed under high priority, as **critical actions**, for which financing has not yet been arranged. For these actions, a strategy must be prepared for fund raising through potential partners.

The Annual Action Plan must also provide for **emergency actions**, which would only be determined during the course of the year.

## **3.2 SECTOR-WISE COORDINATION**

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The sector-wise coordination is an integral part of the Integrated Management Process. Strategies need to be developed to function as a cross-cutting feature of all activities carried out within the World Heritage boundary, the buffer zone and the surrounding areas.

The implementation of the Integrated Management Process could require the ongoing coordination of various sectors such as local development, disaster risk management and tourism.

### **3.2.1 LOCAL DEVELOPMENT**

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The Local Development sector generally encompasses infrastructure and services such as: Roads and Traffic, Water Supply, Solid Waste Management, Sewage Management, Electricity Supply and Telecommunications. However this sector would also encompass the cross-cutting issues of formal and non-formal Education, Environment Management and Security. Local Development, if not controlled, may have a major negative impact on the heritage property. The Local Development Sector is critical for the sustainable development of the Historic Buddhist

Region. Development of this region shall be based on the conservation of the heritage within the region, especially the numerous archaeological sites that are testimony to a history spanning over two and a half millennia. All development activities that are carried out shall ensure that it does not lead to any negative impact on the heritage. This would include development activities linked to for example infrastructure, agriculture and industry. The Local Development sector will participate in the sustainable human development within the heritage area.

### **3.2.2 DISASTER RISK MANAGEMENT**

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A disaster risk management plan is required for the World Heritage property. The potential hazards that this area is subjected to would be mainly earthquakes, fires and flooding. Accordingly the vulnerability of the property shall be

constantly monitored and measures shall be taken to ensure risk reduction measures are put in place. This shall be coordinated with the overall disaster risk management plans at local, district and national levels.

### **3.2.3 TOURISM SECTOR**

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The Tourism sector plays a major role in heritage conservation, both as a source of income as well as to gain acknowledgement for the heritage. However, without appropriate management of Tourism, it can have a negative impact on the property. The Tourism Master Plan must address the issues of heritage conservation. In respect to the actions that might impact the outstanding universal value of the World Heritage property of Lumbini, the Integrated Management Plan must be given priority over other plans and programmes. Regular interaction must be

established between the authorities implementing the Tourism Master Plan and those responsible for the Integrated Management Process. Tourism development shall assist in preserving the outstanding universal value of the World Heritage areas. The activities carried out by the Tourism sector will respect the authenticity and integrity of the World Heritage property. The tourism sector will ensure that their activities do not contribute to development that has an adverse affect on the heritage property.

### **3.2.4 BUDDHIST ORGANIZATIONS**

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Coordination must be ensured with local CBOs and NGOs that have a stake in the

conservation and development of Lumbini and the related heritage sites in the region.

### 3.3 MONITORING, REPORTING AND REVIEW

The implementation of the Integrated Management Process is to be considered in five year cycles. The first Five-Year Schedule would begin mid-July 2013 and end mid-July 2018. After every five years, a thorough review of the Integrated Management Process is to be undertaken, allowing necessary amendments to be made.

On a yearly basis, work will be implemented as per the Annual Action Plan. The year is based on the Nepali Fiscal Year. During the last three months of each fiscal year, the Plan of Action is to be reviewed and the next Annual Action Plan prepared.

**Reporting processes shall be established for monitoring the implementation of the Annual Action Plan on a monthly basis and to review the weekly site monitoring reports of the Lumbini Development Trust.**

#### **Site Monitoring and Reporting**

Weekly Site Monitoring will be carried out by the Lumbini World Heritage Site Management Office by filling out a monitoring form. This form must be filled out regularly, stating whether activities have taken place or not, whereby a detailed history of the site is documented.

**Monthly reporting** will be done by the Lumbini Development Trust as per the finalized reporting processes. Information will be presented as notification or for necessary decisions.

**Emergency reporting** will be done by the Lumbini Development Trust as per the finalized reporting processes and an emergency response plan.

**Annual Progress Reports** shall be prepared in conjunction with the implementation of the Annual Action Plans. The progress report will explain whether targets have been achieved based on the predetermined indicators. The indicators in most cases would be a document or legislation that has been acknowledged or passed by the concerned authorities, implementation of certain provisions, completion of certain specific actions or establishment of an institution, body or programme.

#### **Periodic Assessment**

Periodic Assessment shall be carried out by the Lumbini Development Trust on the implementation of the Integrated Management Process and the state of conservation of the Monument Zones.

**Monthly Assessment** of ongoing activities will be done as per the finalized reporting processes. This will be based on the reports prepared by the Lumbini Development Trust. The monthly assessment will also include a progress report on implementation of the Annual Action Plan.

**Annual Assessment** of implementation of the Action Plan will be done in conjunction to preparation of the next annual Action Plan. The overall Plan of Action will also be reviewed and revised as found necessary.

**Five-Year Assessment** of all the components of the Integrated Management Process will be carried out. The Integrated Management Framework, including the institutional, the legal and the economic frameworks will be reviewed and if necessary amended.



ANNEX - 2

## **Environmental Impact Assessment UNESCO and IUCN**

### **CHAPTER 1**

#### **Introduction**

##### **1.1 Context**

Lumbini, the Birthplace of the Lord Buddha lies in the district of Rupandehi, which falls in the Western region of Nepal. It is a World Heritage Site (inscribed in the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage list in 1997 during its 21st Session) and is a destination for pilgrims and visitors from Nepal and around the world. As a World Heritage Site, owing to its cultural, spiritual and religious values, Lumbini is the pride of Nepal and has the potential of becoming a major source of revenue for the Government of Nepal.

The areas from Bhairahawa to Lumbini have been for many years a verdant region of fertile farmlands with paddy and wheat fields and plantations of various vegetables and mustard. It also provides a good habitat for flora and fauna. However in recent times, the scenario has been changing rapidly due to an increasing number of industrial sites in the area. The communities in the region are still involved in farming but rapid changes are creating an extremely hazardous situation for all forms of biodiversity and also for the World Heritage Site (WHS) in the region<sup>1</sup>. In the last ten years, this region has witnessed a significant increase in the number of industrial establishments and the area in the periphery of the highway from Lumbini to Bhairahawa has the potential of becoming a major industrial zone. Environmental pollution from existing and the growing number of industries has increased noticeably and had an adverse effect on the environment surrounding the World Heritage Site. An awareness campaign, including a petition of environmentalists, has alerted civilians as well as environmental conservationists to take positive action for its protection and conservation.

The ongoing industrial growth possesses a threat to the archaeological remains in Lumbini (the Kenzo Tange Master Plan), and the other archaeological sites surrounding Lumbini, namely Tilaurakot and Ramgram. Both Tilaurakot and Ramgram are included in the UNESCO tentative list for inscription onto the World Heritage List. The master plan covers an area of 5 ml x 5 ml which was approved by the UN and the Government of Nepal in 1978. Rapid industrial development could see the World Heritage Site of Lumbini surrounded by a cement production industrial park thereby creating detrimental environmental pollution that threatens the very existence of Lumbini. The expansion of industrial development at this site is creating a very serious threat to the archaeological and religious value of Lumbini. This unplanned industrial expansion also poses a very serious barrier to the sustainable economic development of surrounding local communities. In view of the threats to this particular WHS, UNESCO Kathmandu has provided financial support to the International Union for Conservation of Nature (IUCN Nepal) in order for it to undertake an environmental impact assessment of the area.

##### **1.2 Rationale of the Study**

The Lumbini World Heritage Site located in the Rupandehi district of Lumbini Zone lies within the Master Plan prepared by Kenzo Tange in 1978. The master plan covers the Lumbini Project Area (LPA) of 1 ml x 3 ml (7.77 sq km) around the main archaeological remains. The rapid and uncontrolled growth of carbon-emitting industries within the LPZ threatens the WHS causing an adverse impact on the biodiversity, health of the local people and visitors. However, on the reverse side, these same industries are becoming an important source of revenue for some local people.

The adverse impacts caused by industrial expansion within the zone needs to be identified and assessed urgently to preserve the sanctity, spirituality as well as the biodiversity of the region by promoting the sustainable development of the surrounding communities in a deliberate and tactful way. Furthermore, environmental pollution created by the emerging and existing industries has progressively demolished the environment around the WHS – the hugely important birth place of the Lord Buddha. In order to assess the situation, comprehensive information about the existing industries; multi-dimensional impacts caused by the industries; land use planning for the promotion of

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1 B.vivekanada and et al., 2009.

livelihoods of the locals using non-carbon emissions sources of income generation; and preservation of cultural values of the Lumbini area are needed to be integrated into the conservation and development plan of the region in order to reduce the environmental degradation.

In this regard, as per the Environmental Protection Act 1997, an Environmental Impact Assessment (EIA) is mandatory for the protection, conservation and sustainable management of the environment. The scope of the work mentioned includes an assessment study of current industries and their impact on the region. This study puts forward the most effective ways to protect the environment from increasing pollution caused by the burgeoning industrial development and recommendations for environmental-friendly development initiatives in the region.

### **1.3 Objectives**

The general objective of this study was to prepare a detailed Environment Impact study of the industrial development around the Lumbini heritage site.

**The specific objectives of the study were:**

- Identify and locate the industries in the study area.
- Review the relevant environmental impact documents.
- Assess the baseline information of the study area.
- Develop an environmental plan and monitoring and auditing frameworks.
- Propose land use zoning and develop a guideline to guide future infrastructure and industrial activities within the region.

### **1.4 Scope**

The scope of the study included the following areas of work:

- Collection of detailed information on industries within the area including their location, size, nature, production capacity, use of raw materials and use of energy sources in order to establish a baseline. Their emissions, wastage and by-products if any, are accounted for evaluating their multiple impacts on the prevailing environment of the area.
- Baseline information about the zone; baseline information regarding the geographical, socio-economical and cultural and bio-physical environmental status were undertaken in this study
- Preparation of an environmental management plan, monitoring strategies, and proposals for the most effective mitigation measures, including auditing plans and matrices for the monitoring of various pollution parameters at the industrial site.
- Classification of existing land use and land cover of the study area into different zoning classes for the protection and conservation of the region and recommendation of a guideline for the development of industrial activities permitted or prohibited in the protected zone

### **1.5 The Study Area**

The study area; the Lumbini Protected Zone (LPZ) covers a 15-km aerial distance due North, East, West and South (within Nepal), running rectangular in shape within the boundary of LPA (1ml x 3ml) of the Kenzo Tange Master Plan. The aerial distance of 15-km was decided by the Government of Nepal (IPB/GoN, 2009) and the coverage landscape defined as "LPZ". It is an alluvial plain built by the depositional work of the river. The relief of the area is 83 metres to 135 metres in height from the Indian mean sea level. The study area lies between 27° 19' 34.803" to 27° 38' 31.992" N and 83° 6' 58.011" to 83° 26' 7.977" E both in Rupandehi and Kapilbastu districts in the western development region of the country (Figure 1.1).



## Conclusion and Recommendations

The region has a subtropical monsoon climate with a warm wet season from mid-June to September, a cool dry season from October to February, and a hot dry season from March to mid-June. The annual rainfall is about 1,700mm of which 85 per cent falls during the monsoon season. The mean temperature is about a maximum 45<sup>o</sup> C during May and a minimum of 10.5<sup>o</sup> C from December to January.

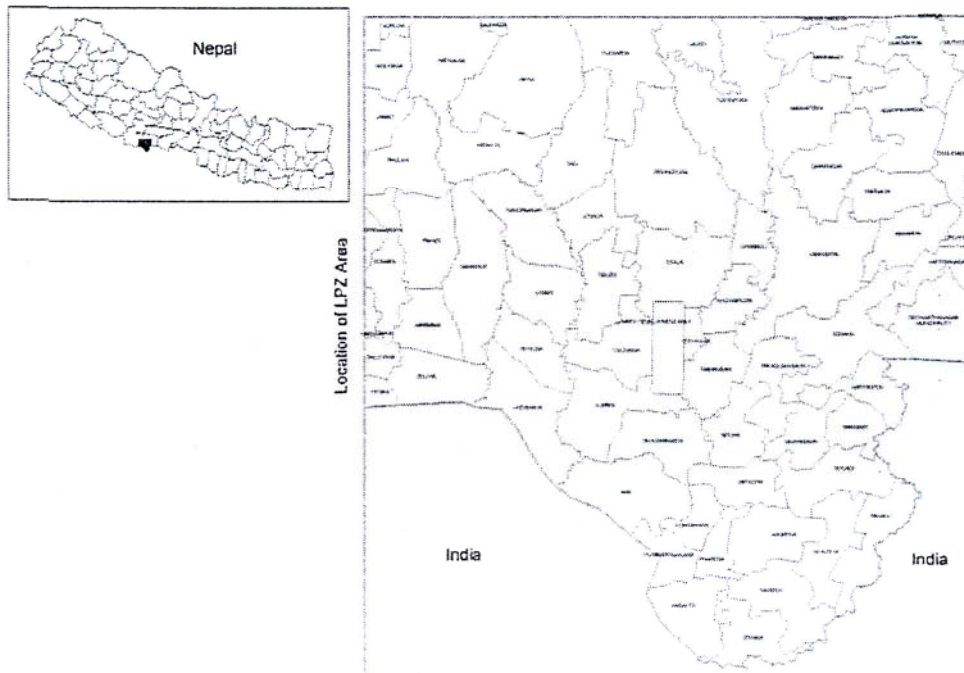


Figure 1.1: The study area

The farmlands of Rupandehi and Kapilbastu districts encompass a large rural area. There are plains in the south and Churia Hills to the north. A number of perennial and seasonal rivers and streams including the Telar, Tinau, Sundi and Dano rivers flow through the area. The forest, scrub, wetlands and grasslands surrounding Lumbini are an important refuge for wildlife. A total 210 bird species have been categorized and listed in Rupandehi district (Sual, et al., 2010).

### 1.6 Limitations of the Study

The limitations of the study as follows:

- The EPA 1997 and the EIA guideline 1997 steers the Environmental Impact Assessment for any new development project(s) to be established. However this study was carried out for the impact assessment of the current operational industries located in the study area based on the guideline and the Act.
- The study was conducted within a very tight time schedule and with limited resources. Due to such constraints only a rapid analysis was possible.
- Because of limited time and a lack of monitoring equipment, data in regards to air, water, soil and noise pollution has been constrained.
- Getting meteorological data such as wind profiles and ambient temperature (hourly-based data) of the study area was also one of the limitations of the study. As a result, the analysis of dispersions, diffusion and transportation of particulate matter and emissions has been limited.

- The unfavourable weather condition (monsoon) and flooding in the river disturbed the field survey and sampling.
- There was also difficulty in getting meeting appointments with industry authority officials during the field visits.
- The water quality and soil assessments carried out in the study were insufficient to represent the entire region of the study area. For more comprehensive information, more soil and water samples, backed by more sufficient resources, are needed so more analysis can be undertaken.

### **1.7 Expected Outcome**

The major expected outcomes of the study are an assessment of the condition of the existing industries and bio-physical environmental impacts due to on-going industrial activities.

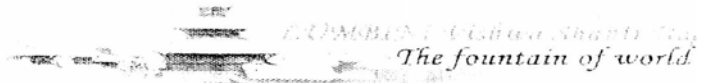
In addition, the other expected outcomes are as follows:

- The reduction of unfavourable impacts by using an environmental plan and monitoring and auditing frameworks.
- Recommendations for the sustainable development of the study area in order to protect religious and cultural insights and the conservation of archaeological values through the use of proper land use zoning guidelines.

## ANNEX - 3

### Master Plan for Lumbini World Peace City

#### Introduction and Map



## Introduction

### 1. Project Mission : World Peace City(Vishwa Shanti Nagrama)

The story of Siddhartha Gautama, the Sakyamuni Buddha, began in Lumbini, Nepal, nearly 2,600 years ago, has blossomed over the centuries, and now we are pleased to present *Vishwa Shanti Nagrama* – “The World Peace Villages” of Lumbini—for this age, as a new chapter in the on-going movement toward peace and enlightenment. Designated a “Fountain of World Peace,” Lumbini is now ready to become a living model for the rest of the world to learn and follow. It will demonstrate how diverse cultures, religions, races, and lifestyles can join together to demonstrate harmony of living together and stewardship of the environment in a community of new “global villages.”

#### ■ Vishwa Shanti Nagrama

The Nepali term “*Vishwa Shanti Nagrama*” has been chosen for this new Villages project. “Vishwa” means global. “Shanti” signifies inner peace and harmony. And “Nagrama” is a word that combines the Nepali word “Grama,” or rural village and “Nagar,” or urban City, as this project is a blend of the best of both lifestyles working together as one. We are using the term “Nagrama” to also mean “neighborhood,” as each community within the Villages is planned as a unit of cohesive neighborhoods, all working together as one integrated community. But also, each Nagrama is designed to bring people together to promote interaction and communal living, similarly, all communities should be planned to work together as one, cohesive community at the Village level.

#### ■ A Time of Crisis

As we enter the second decade of this new millennium, the world community is in crisis - Our biosphere, socio-sphere, politico-sphere, and econosphere are all being threatened. It is time to confront this crisis head-on with vision, innovation, and an enduring commitment to cooperation among nations, world citizens, and governments around the globe. This must be recognized as both an urgent necessity and an opportunity for the emergence of a spiritual model for community living that will offer hope as well as a practical demonstration of functioning standards and successful implementation. The world Buddhist community, the Villages of Lumbini, and all responsible world citizens are called upon to “seize the day” and take part in the realization of a new paradigm: world cities and villages that can embody the consistent spirit of harmonious living and sustainable existence, conducive to the spiritual enlightenment of its citizens. This Vision Plan for *Vishwa Shanti Nagrama*, a blend of the urban—Nagar—and the rural—Grama--proposes such a paradigm shift in global living.

## ■ The Task and Responsibility

As world citizens, the **Vishwa Shanti Nagrama** team proposes to outline and describe a master plan of future growth for Lumbini to embody the essence of “global village living”—Villages that will preserve the historical, cultural, religious and ecological treasures of the area, promoting sustainable development of future communities and environments towards the World Buddhist Foundation’s vision of a “Fountain of World Peace.” This new “Nagrama” (combination of the Nepali words “nagar” for urban city and “grama” for rural village) must become more than a symbolic representation of the Buddha’s teachings; it must become a living example of Buddhist principles in form, function, and spiritual living. The Buddha brought self-discovery and healing to the world during his time on this earth, and now **Vishwa Shanti Nagrama** presents to residents, visitors and pilgrims the 21<sup>st</sup> Century’s embodiment of this Buddha spirit as Villages of healing and enlightenment. The master plan respects Lumbini’s outstanding universal values and presents foundational metaphysical templates for use in the urban design of the peace Villages, casting the Villages as a site for Buddhist teaching and learning to improve and demonstrate the capacity of the human potential.

## ■ A New Era for Lumbini

The Kapilbastu Rupandehi Nawalparasi District in Nepal enjoys and opportunity to become one of the most important world peace and global connection movements in a new age we call the “Uriwebun Age”. The small town of Lumbini and its surroundings are designed to become a central element of these emerging Villages. Throughout the ages, Nepal’s most valuable “export” to the world has been the Buddha’s culture of happiness and spiritual enlightenment. Vishwa Shanti Nagrama is conceived as the embodiment of that culture, radiating outward from the Buddha’s birthplace to the greater region around Lumbini, to all of Nepal, and ultimately to the world.

## 2. Why Lumbini?

Why should Lumbini be chosen as the center of this inspired World Peace Global Village? Why not Kapilbastu, where Siddhartha Gautama grew up? Why not Bodhi Gaya, where he became enlightened? Why not Benares, where the first Sangha was established? Or other regions important to his story?

Lumbini is a landmark of the Buddhist world and a key destination for devotees of the Buddhist lifestyle. As the only active religious place that has been listed in the World Heritage Site by UNESCO, Lumbini symbolizes peace and harmony to people everywhere. While the world continues to be full of conflict, the desire for peace in Nepal has been embraced by Buddhist societies in many nations. Designating Lumbini as a World Peace Villages is most appropriate and this is the logical place for such an iconic international center.

There is hardly any need to justify the selection of Lumbini for such a status. The reasons for a World Peace Villages (**Vishwa Shanti Nagrama**) in Lumbini are many:

- Birthplace: Lumbini is the birthplace of Lord Buddha, apostle of peace, known throughout the world over;
- Sacred Site: Millions of Buddhists from all over the world come to Lumbini as a sacred destination.
- Buddhist endorsement: Lumbini has been endorsed by the World Buddhist Summit as the Fountain of the World Peace
- Setting: The environment and setting of Lumbini offers an ambiance of peace and harmony.
- Existing Monasteries: Lumbini's Monastic Zone has many great monasteries from all corners of the world by many participating countries.
- Holy community: Lumbini's culture is rife with monks, holy people, and spiritual leaders, who serve as an inspiration to others.
- Pilgrimage Location: Lumbini, like Mecca or Bethlehem, can become an even larger major world pilgrimage site for Buddhists worldwide to visit.
- University potential: Lumbini has the potential to establish a future World Buddhist University.
- Grant funding potential: Many individuals and agencies, including UNESCO, IUCN, the International Crane Foundation, multi-lateral and bilateral government agencies, and Buddhist organizations are interested in Lumbini being developed as an environmental and cultural heritage area, due to its cultural, historical, religious, architectural and environmental significance. This positions Lumbini well for potential economic and technical grants and other funding.
- Tourism: Lumbini is becoming one of the most rapidly growing tourism destinations and is often included in Nepal trip brochures by travel agencies and other tourist organizations.
- Planned growth: It is commonly agreed that, in spite of its current rural character, Lumbini is under great pressure to eventually become more and more urbanized. As a World Peace Villages, Lumbini would be more likely to be planned in a controlled and proper manner, instead of allowing rampant, uncontrolled growth.
- Peaceful location: Most importantly, in spite of Nepal's recent history of discord and violence in striving to establish a stable government and society, Lumbini remains a safe and peaceful area, without racial, political, ethnic, or other strife. This philosophy and lifestyle are readily seen in the friendly and peace-loving citizens of the Lumbini region and Nepal in general

**Lifestyle Preservation:** Even though Lumbini contains the Buddha's birthplace, the Asoka pillar, and the holiest Buddhist pilgrimage destination on earth, still the existing villagers, their farming, their culture and their heritage, remain the heart and soul of this area. Without preservation of this lifestyle resource, there cannot be a successful project. Protection and preservation of this "human treasure" is critical to any master planning effort in Lumbini. This **Vishwa Shanti Nagrama** project envisions a community in which cultural values, traditions, lifestyles, memorials, and artifacts are honored and preserved to maintain the authentic Villages of the heritage of Nepal, this region, and its rich history.

The vision plan enables the preservation and appreciation of this region's cultural contributions by respecting, protecting, and honoring the local lifestyle and practice, for future generations.

**A new "modus vivendi":** This project seeks to achieve even more than cultural and environmental preservation; it is largely about pioneering a whole new "modus vivendi," or way of life, the opportunity of experiencing a new community manner of living, and the planning concepts described in this report are in keeping with that objective. All planning and design models must reflect and encourage a communal sharing lifestyle, encouraging people to come together, and not living apart. This will be reflected in the housing types, the housing cluster layouts, the provision of "gathering spaces" for the people, and every other aspect of the design process. Fences, walls, barriers between houses and the like should not be allowed in the design guidelines, as they tend to separate, rather than unite, people and families.

**Reduced energy use, sustainable living as an example:** It is clear that cities, towns and villages have become ever more dependent on high energy use, long commute distances, suburban sprawl, and machine-based transportation. Yet, recent and ancient traditional examples have given us many successful pedestrian communities and villages. We must design and plan communities for great diversities of functions at close proximity, together with major efforts to restore natural systems and preserve sustainable agricultural practices. Eco villages, and eco cities should be built on the human scale, to function at high levels of efficiency in recycling, energy and resource use. This global village effort, then, should urge and implement a new strategy in the process human beings use to create their buildings, roads, and communities. It should examine, design, and build this project using the natural principles behind healthy community organization and construction.

**Peace education:** While developing infrastructure and undertaking sensitive environmental planning in Lumbini, the World Peace Villages must include the initiation of a program of peace education simultaneously. Peace education prepares local communities to voice their perspectives, experiences, understandings, biases, commitments, hopes, and despairs, while at the same time fulfilling the rights and duties of the citizens. The implementation of a World Peace Villages in Lumbini strengthens the spirit of Panchashil, the teachings of Lord Buddha, fulfills the designation of Lumbini as the world's only active religious World Heritage Site, and satisfies the aspiration the Foundation of the World Peace. Equally as important, the implementation of **Vishwa Shanti Nagrama** would also contribute significantly to the strengthening of the national peace process in Nepal.