

Lumbini, the Birthplace of the Lord Buddha
(Nepal)
(C 666rev)

A report on the State of Conservation of the property

November 2015

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Draft Decision: 38 COM 7B.18

The World Heritage Committee,

1. Having examined Document WHC-14/38.COM/7B,
2. Recalling Decision **36 COM 7B.64**, adopted at its 36th session (Saint Petersburg, 2012),
3. Notes the progress made in developing the Integrated Management Framework document and its Management Plan, the Environmental Impact Assessment (EIA) as well as conservation measures taken for the property;
4. Also note the awareness raising effort undertaken by the State Party, notably in the publication of books on Lumbini and the development of the UNDP/UNESCO brochure to raise funds for the completion of the Kenzo Tange Master Plan;
5. Urges the State Party to adopt the Integrated Management Framework document and to continue its work on the finalization of the Integrated Management Plan (IMP) , and also urges the State Party to not approve 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 (HIA) that are in conformity with the ICOMOS Guidelines on Heritage Impact Assessments for World Heritage cultural properties;
6. Note with concern the proposed development of the Lumbini World Peace City in the Greater Lumbini Area, and requests the State Party to submit detailed information on this development, and to submit information about any other proposed major restoration or new construction in the World Heritage Centre and Advisory Bodies in accordance with Paragraph 172 of the Operational Guidelines;
7. Encourages the State Party to develop a strategy for the protection of the larger Greater Lumbini Area and its setting, including but not limited to Tilaurakot and Ramagrama, and to future reduce industrial activity in the vicinity of the property;
8. Also requests the State Party to submit to the World Heritage Centre, by 1 December 2015, an updated report, including a 1 page executive summary, on the state of conservation of the property and the Implementation of the above, for examination by the World Heritage Committee at its session in 2016.

Section A

Response to the points made by the World Heritage Committee

Refer 36COM 7B.18

4. *Also note the awareness raising effort undertaken by the State Party, notably in the publication of books on Lumbini and the development of the UNDP/UNESCO brochure to raise funds for the completion of the Kenzo Tange Master Plan;*

Book Publication on Lumbini

UNESCO already published the book "The Sacred garden of Lumbini, perception of Buddha's Birthplace" in 2013. This book covers the Introduction of Lumbini, highlights of life of Buddha, various travel accounts and detail on Master Plan of Kenzo Tange. This book helps the people to understand Lumbini and supports to raise the fund.

5. *Urges the State Party to adopt the Integrated Management Framework document and to continue its work on the finalization of the Integrated Management Plan (IMP) , and also urges the State Party to not approve 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 (HIA) that are 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 need to be approved and implemented by the Government of Nepal which is still in the process.

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

New development within World Heritage boundaries

There are some development activities within core and buffer zone area; which do not affect to its outstanding universal value

1. Pedestrian walkway with meditation platforms

To fulfill the requirements of the pilgrims and visitors in the sacred garden it felt necessary to provide the meditation platforms and control their movement, pedestrian pathway is constructed in consultation with UNESCO Office in Kathmandu and Department of Archaeology, Nepal.



Pedestrian walkway

2. additional meditation platforms

There is one more platform added to facilitate the need of the religious group. Sometimes many of the different groups want to meditate within the sacred garden in the same time and meditation platforms are not sufficient, therefore an additional platform was constructed under given guidelines by the Department of Archaeology.

3. plantation of Pipal tree (Bodhi Tree)

A Pipal tree (ficus religiosa) was planted in the core area (about 80 meter west of the Asokan pillar). The sampling of the Holly Tree from Buddha Gaya, gifted by Indian Prime Minister H.E. Shri Narendra Modi to Nepal.



Meditation platform



Pipal tree (Bodhi Tree)

New construction within buffer zone

1. Drainage

To reduce the water level of sacred (core) zone to the north-east part of buffer zone, the digging of drainage carried out within the guide line of Kenzo Tange Master Plan. This is not an archaeological potential area.



Drainage to the north east part of buffer zone

2. outer pedestrian walkway

The pilgrims wish to circumambulate the sacred area of the birthplace of Lord Buddha and to provide proper way to visit around even in the rainy season; outer pedestrian walk way has been constructed.



Outer pedestrian walkway

3. Paving of walkway along main axis from north

The main entrance to the sacred garden is in the north. The earthen colored tiles have been paved from the edge of the sacred garden area (from the north).



6. Note with concern the proposed development of the Lumbini World Peace City in the Greater Lumbini Area, and requests the State Party to submit detailed information on this development, and to submit information about any other proposed major restoration or new construction in the World Heritage Centre and Advisory Bodies in accordance with Paragraph 172 of the Operational Guidelines;

Development of the Lumbini World Peace City

Project document for The Lumbini World Peace City has been finalized; which need to be approved and implemented by the Government of Nepal that has not been done yet.

7. Encourages the State Party to develop a strategy for the protection of the larger Greater Lumbini Area and its setting, including but not limited to Tilaurakot and Ramagrama, and to future reduce industrial activity in the vicinity of the property;

Activities on Tilaurakot and Ramagrama

UNESCO /FFIT Phase II, Prof. Nakamura (Tokyo University) team carried out GPS survey in Kapilvastu district following the survey done by Nepali / Italian joint archaeological team in 1994. Nakamura's team identified 120 archaeological sites in Kapilvastu district. Next survey will be carried out in Rupandehi and Nawalparasi district. Many of the identified sites are most prominent and need to be protected in Kapilvastu district.

Section B

UNESCO / JFIT / DOA / LDT Project

STRENGTHENING THE CONSERVATION AND MANAGEMENT OF LUMBINI, THE BIRTHPLACE OF THE LORD BUDDHA, WORLD HERITAGE PROPERTY (PHASE II) Season 2014 (First year)

Archaeological Investigations

Activities

The first season of field activities took place between the 5th January and 25th February 2014 in order to start the process to identify, evaluate and interpret the physical signature of Tilaurakot and complete the risk map of Lumbini. As per the timetable of activities, we achieved all of our stated objectives of this phase. We also took micro-morphological, bulk soil and thin section samples from some of the trenches to aid our further interpretation and dating of the key site elements and phases, and the past environment of Tilaurakot.


Activities at Lumbini

Activity LMB1: Complete the Archaeological Risk Map for Lumbini

- a) Plot the series of auger-cores undertaken at Lumbini, outside the Sacred Garden, in order to map the presence or absence of cultural material below the surface, in particular the areas to the north, east and west of the Sacred Garden, and integrate into the GIS database;
- b) Created final archaeological risk map in order to inform physical planning and management.

Agreed Outputs

- Complete the Archaeological Risk Map for Lumbini
- Mapping the above features onto GIS to prevent further damage and aid site management;


DIRECTOR GENERAL



Master Vision Plan for Lumbini World Peace City
Lumbini Vishwa Shanti Nagrama
Preservation and Development

Summary Report

June 2014





∞
Himalunshi
KUTAK

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Forword

On behalf of my colleagues at KWAAC E.S.P.R.I., I humbly present this Report to KOICA, Republic of Korea and Nepal Government and to everyone who wishes to make our world a better place to live.

The Report bears the fruit from our Team – comprising architects, policy planners, urban designers, landscape architects, engineers, educators and environmentalists. We also appreciate the collaborations from many social scientists and religious thinkers in this effort.

The seed idea of **Lumbini World Peace City** was borne out of the participations from a wide cross-section of people. The Lotus plan form of **Lumbini World Peace City** was shaped to the wishes of all of the Buddhist leaders we have met in the world. We were enlightened by them. The Lotus symbolizes the Three Treasures of Buddhism: Buddha, Dharma and Sangha, and it will also embody the Upasaka/Upasika areas for world citizens.

The local Lumbini residents unanimously expressed their satisfaction with this Lotus plan. They even suggested the Nepali name for **Lumbini World Peace City** as “Vishwa Shanti Nagrama” to harmonize the future rural and urban environments. This was a very touching and significant experience to our team. We greatly appreciate their contribution.

KWAAC E.S.P.R.I. wishes to thank all world Buddhist leaders and the Lumbini residents who have offered us with their wisdom in making this **Lumbini World Peace City** Master Plan possible. We are also in debt to the Lumbini Development Trust and to governments of Nepal at all levels who had helped us achieve our goal. To the generous assistance from KOICA home and field staff, we are most grateful to them.

The Lotus plan of **World Peace City** where we can “live to learn to live together” is very relevant in this particular juncture of history and we firmly believe it will help humanity to evolve the Global Village Civilization to be more harmonious and just.

We earnestly look forward to working with world Buddhists and global representatives to realize this **Lumbini World Peace City** Master Plan by the target year 2030! Let us celebrate Sakyamuni Buddha’s Birthplace as the pre-eminent Buddhist pilgrimage center for peace-loving people in the world.

In Dharma, 

Himalumbi KWAAC YoungHoon Written on the first full moon day of May, 2014



Lumbini World Peace City Master Plan

Summary Report

1. Overview

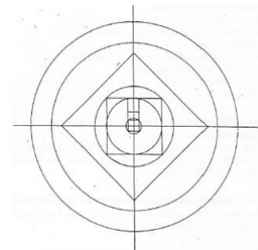
The legend of Siddhartha Gautama Sakyamuni Buddha began in Lumbini nearly 2,600 years ago, and his teaching is embraced by millions of Buddhists around the world. However, Lumbini - the birthplace of Sakyamuni Buddha - has been ignored for too long and many people lamented to see the present undeveloped and poor living conditions of this sacred place.

At this juncture of human history when our world is in constant crisis, some visionaries begin to see that this obscured Lumbini – the birthplace of Buddha - can evolve to become a living and learning spiritual place, a fountain of world peace that will bring hope to this troubled world.

A Brief Background and Recent History

In December 1998, the World Buddhist Summit was held in Lumbini and it was declared that Lumbini is “the Holiest Buddhist Pilgrimage Center of Buddhists and Peace-loving People of the World, and the **“Fountain of World Peace.”** This was a major change in the general perception of Lumbini, and a chance to develop its true potentials.

Immediately after the Declaration, several Buddhist leaders and Dr. H. Karcher of UNDP in Kathmandu set the overall strategy for the development of Lumbini as the Fountain of World Peace. The defined task was divided into three phases: **“(1) the vision and scoping phase, (2) the operation study phase and (3) the implementation phase”**.



In November 1999, the United Nations in New York and UNDP in Kathmandu commissioned Dr. Kwaak YoungHoon of Harvard Divinity School in Boston and Dr. Abelardo Brenes of UN University for Peace in Costa Rica to carry out the **Vision and Scoping Phase** with the purpose of “...scoping the development of Lumbini beyond the physical infrastructure and economic development envisaged in the Lumbini plan developed in the 1970’s. This phase would, in fact, fully explore and articulate a vision of how Lumbini could be positioned as a world citizens city wherefrom the peaceful development of the human race could be promoted through thoughtful investigation of challenges to world peace and though organized initiatives for human harmony.” (*Report for the Lumbini Vision and Scoping Mission, May 2000*)

In May 2000, after making field visits and discussing with World Fellowship of Buddhists as well as representatives of governments, Dr. Kwaak and Dr. Brenes recommended Lumbini as a World Peace City where citizens of the world “learn how to live together and propagate their practical learning to the rest of the world.”

In December 2004 at the 2nd World Buddhist Summit held in Lumbini the recommendation in the May 2000 *Mission Report for the Vision and Scoping of Lumbini as World Peace City* was unanimously adopted.



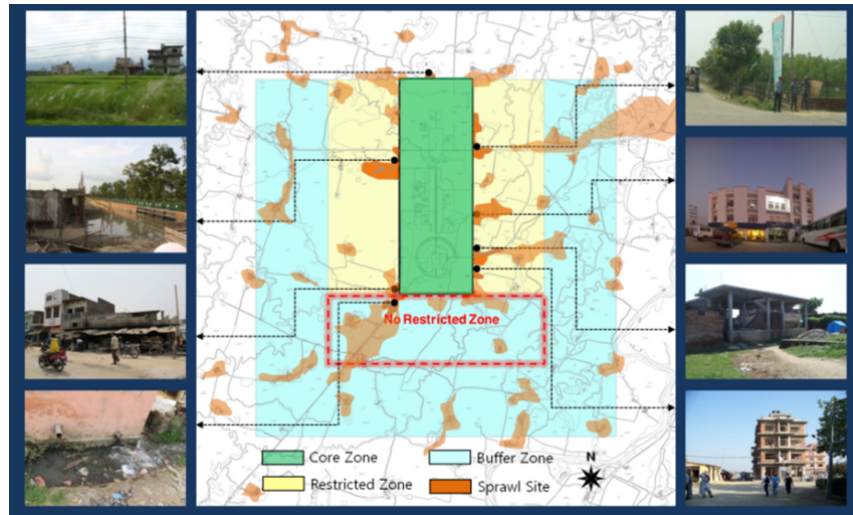
The Kwaak-Brenes *Mission* in 2000 also recommended the Government of Nepal to make immediate action to enter into the second phase to “Operationalize the Lumbini Vision and Scoping Report”. After 12 years of had passed KWAAK E.S.P.R.I., Environmental Studies and Policy Research Institute from Seoul, Korea was ultimately commissioned by the Governments of Nepal and Korea in March 2012 to prepare a “*Master Plan for Lumbini World Peace City Preservation and Development.*”

KWAAK E.S.P.R.I. consider this report as the equivalent task of *Book □ Lumbini World Peace City: Urban Design* which was defined as one of *4 Books* recommended by the Mission in May 2000. Thus in the absence of *Book □: Buddhist Dharma and the Metaphysical Templates*, we have to diligently decipher Buddhist philosophy and mind theories.

This Summary Report is the result of KWAAK E.S.P.R.I.’s preparation during the past three years. Extensive site visits to listen to the unfiltered voices of the Lumbini residents, as well as the wise words of global Buddhist leaders and high monks produced this human environmental design studies.

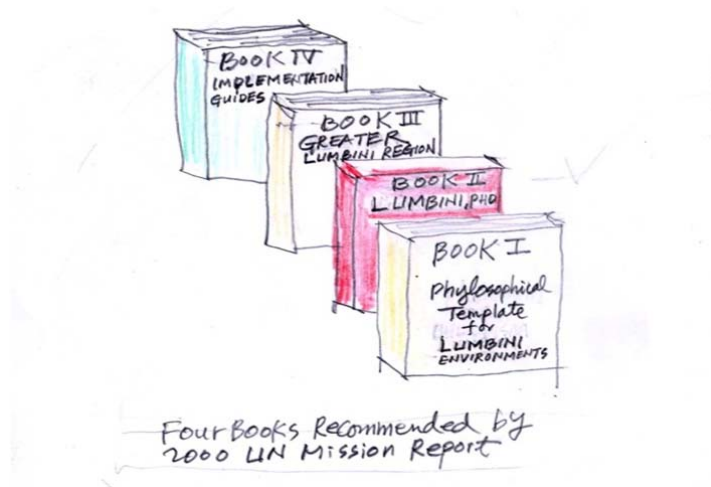
Why Book □ comes before Book □: Although 4 Books were recommended to be completed together or in sequence by the *Kwaak-Brenes Mission* in 2000 as the necessary operational planning and design framework before entering into the third *Implementation Phase* of Lumbini World Peace City vision, KWAAK E.S.P.R.I. agrees with both Governments to skip *Book □: Metaphysical Templates because of the urgent need to protect the Lumbini Sacred Garden area from today’s uncontrolled urban sprawl and the environmental pollution and deprivation in the region of Rupendehi, Kapilbastu and Nawalparasi Districts near Lumbini. Otherwise, irreversible damages will be made.*

Lumbini Urban Sprawl



These 4 essential “companion” books of Kwaak-Berens UN Mission in 2000 were:

- **Book I** : The Buddhist Principles and Metaphysical Templates for the Urban Designers and Regional Planners of new Lumbini project;
- **Book II** : Lumbini World Peace City: Urban Design Master Plan;
- **Book III** : A “Pilgrim’s Pathway Plan” covering a vision for the wider Kapilbastu – Rupandehi - Nawalparasi Districts Regional Plan;
- **Book IV** : A Comprehensive set of Design Guidelines and Development Standards for the project’s future planners and implementing agencies plus Code of Conduct for the residents.



Task and Responsibilities

Even in the absence of a written ***Book I: Metaphysical Templates***, the first responsibility of KWAAC E.S.P.R.I. is to ensure that the Lumbini World Peace City physical environment is to be a faithful reflection of the Buddhist philosophy by listening to as many Buddhists in the world as possible before embarking on this urgent Book II task.

Secondly, KWAAC E.S.P.R.I.'s responsibility was to meet at least two requirements both on the local level and for world-wide: first, as a ***world*** city, Lumbini must serve as a living model for the rest of the world, and secondly, as a ***peace*** city, the living standards of the local population of Lumbini must be improved. So we listened to many peace-loving people in the world and, as well as to local residents.

Listening was critical, because our task was to make a significant transition ***from the metaphysical environment to the physical environment*** and the vision of Lumbini as the Fountain of World Peace must address physical issues and environments in its evolution as the World Peace City. This transition necessitates that a peaceful way of life in the ***Lumbini World Peace City*** needs to be made practical in order for Lumbini to sustain itself as the Fountain of World Peace.

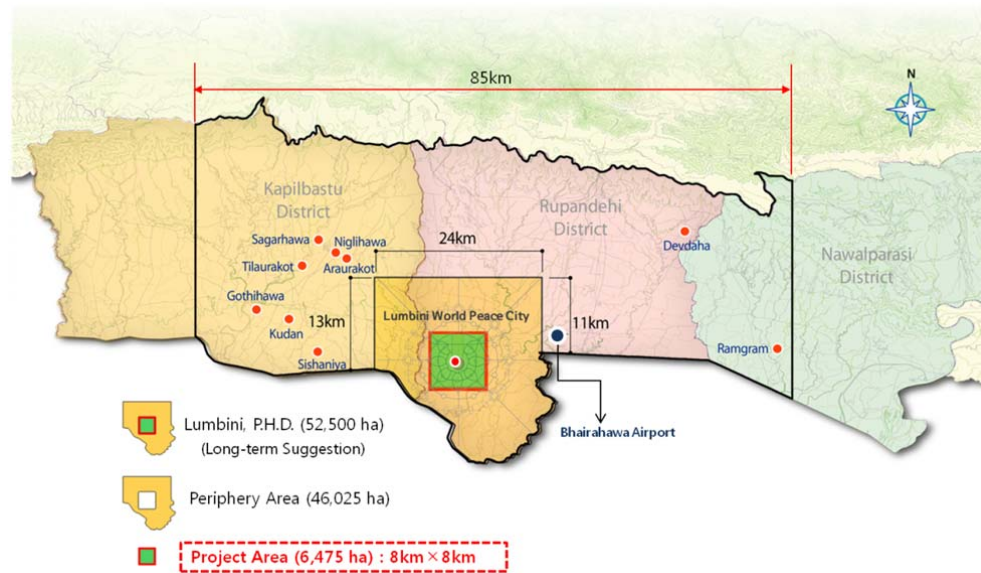
As we carried out this task, we recognized that the ***Lumbini World Peace City*** has the capability of opening a new chapter for the world community in this ***time of global crisis***. And it was evident that now it is time to address the global crisis head-on with the ***Lumbini World Peace City Vision***. In that quest, an enduring commitment is needed toward harmony and cooperation among nations, world citizens, and governments around the globe.

Scope of the Planning Area and new term of Nagrama

Scope of the Planning Area: The Terms of Reference project area, is centered around the Maya Devi Temple of 6,475ha, approximately 8km×8km, with the projected population of 220,000.

KWAAC E.S.P.R.I. team recommended to the Government of Nepal and to KOICA to declare the expanded area of 24km×24km as the ***“Lumbini, P.H.D.”*** - that is, the “Peace and Harmony District” to meet the need of long-term regional plan and urban expansion in the future.

Greater Lumbini Regional Planning Area



New Term of Nagrama: The major change came about from the voices of local residents and staff of the Lumbini Development Trust, during several open public discussions at the final phase of our planning process. It was surprisingly about the naming of the project.

They strongly suggested to use the term *Nagrama* instead of Nagar because Nagar means city, and to some people city means concrete jungle. However, they were impressed by the presentations of improved quality of life in the new Lumbini Master Vision Plan combining rural and urban land use characters and circulation systems, and not a single existing village house or rural road were removed.

Local Nepali residents, archaeologist and LDT staffs suggested we use a newly coined term *Nagrama* by combining the old Lumbini name of *Gram* in Buddha's time with the larger scale *Nagar* to represent our Master Vision Plan which is symbolized by the Lotus blossom and the 8 pilgrimage paths for truth. In this Summary Report, Lumbini Vishwa Shanti Nagrama is used along with *Lumbini World Peace City*.

Project Purpose and Design Principles

We learned from many peace loving-people in the world, including Buddhist leaders and Lumbini villagers that making Lumbini, this very birthplace of Buddha, as Vishwa Shanti Nagrama is ***an unprecedented rare opportunity to contribute to humanity and it should not be missed.***

They urged us to highlight the noble purposes of Lumbini and to demonstrate how our human environment can be conceived and orchestrated to integrate both rural and urban lifestyles and to help facilitate the evolution or Global Village Civilization to be more harmonious and just.

KWAAK E.S.P.R.I. organized what we learned from the stakeholders of Lumbini consisting of local residents, government officials, scholars and high monks, and turned their teachings, hopes and dreams into *four project purposes and design principles* for Lumbini Vishwa Shanti Nagrama as follows:

1) Preserve and protect the historical, cultural, religious and ecological treasures of the area.

- “No house should be involuntarily removed.”
- “No archaeological sites should be disturbed.”
- “Stop polluting industrialization and urban sprawl.”
- “Restore the forest.”
- “Immediate actions must be taken to safeguard Lumbini for irreversible damage.”

2) Embody the principles in practical application of the three treasures of Buddhism, namely: Buddha, Dharma, Sangha.

- “*Lumbini World Peace City* embody these three treasures.”
- “Lotus should be symbolized.”
- “8 Truth Paths should be introduced.”

3) Provide a living and learning environmental model conducive to self-enlightenment and to the formation of more harmonious Global Village Civilization.

- “Upasaka/Upasika, concept for world citizens should be introduced.”
- “Provide additional new rural villages for new incoming farmers.”

4) Alleviate poverty and improve the quality of life in rural villages in greater Lumbini area.

- “Peace cannot come amidst hunger and disease.”
- “Economic and ecological sustainability should be ensured.”
- “At every level of implementation, local residents must be involved and human development must be considered.”

2. Contextual Understanding of Nepal and Lumbini

Over our three years of research, reconnaissance, investigation, visits to Nepal and the Lumbini site area and its region around Lumbini, KWAAC E.S.P.R.I. team collected valuable data to satisfy all aspects of the project development and preservation of **Lumbini World Peace City as Vishwa Shanti Nagrama**. They include an overview of the Nepalese history and human conditions - population/demographics, housing, land use, industry and all infrastructure conditions such as soil, roads, electricity supply, water supply and sewages, fuel and power facilities, public service, education and clinical facilities; tourism, hotels, restaurants, transportation, political and administrative systems.

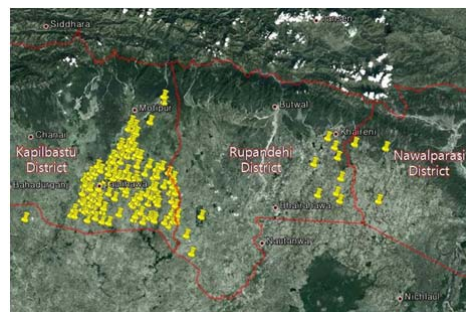
In addition, KWAAC E.S.P.R.I. team tried to understand Lumbini and its vicinity in terms of natural environment and the historical and cultural heritage sites; relevant programs and plans - from local to regional and international perspectives. The team also analyzed economy, national and local - agriculture, natural resources, foreign aid, debt, jobs and employment, as well as the infrastructure needs.

Many reports have described Nepal as economically poor and politically unstable, but surveys in Nepal made by KWAAC E.S.P.R.I. manifest that **Nepal is a very blessed country**. The obvious assets are the world's highest Himalaya Mountains, and perhaps less obvious but more unique asset that Nepal has is the most spiritual resource in the world which is Lumbini - the very birth place of Sakyamuni Buddha - an Apostle of Peace.

KWAAC E.S.P.R.I. intensively investigated more than 150 Buddhist heritage sites in the Rupandehi, Kapilbastu and Nawalparasi Districts so that a Protection Plan must be established for the Buddhist heritage sites in these three districts. Therefore, Book III must be made immediately.

Heritage related literatures research and site visits were conducted with the LDT Resident Archaeologist B. Bidari both in the 8 km×8 km project area and in the 24 km×24 km of *Lumbini, P.H.D.* All 150 heritage sites except the Maya Devi Temple area with Asoka pillars and the water pond where Maya Devi washed, are outside of the *Lumbini, P.H.D.*

150 Buddhist Heritage Sites



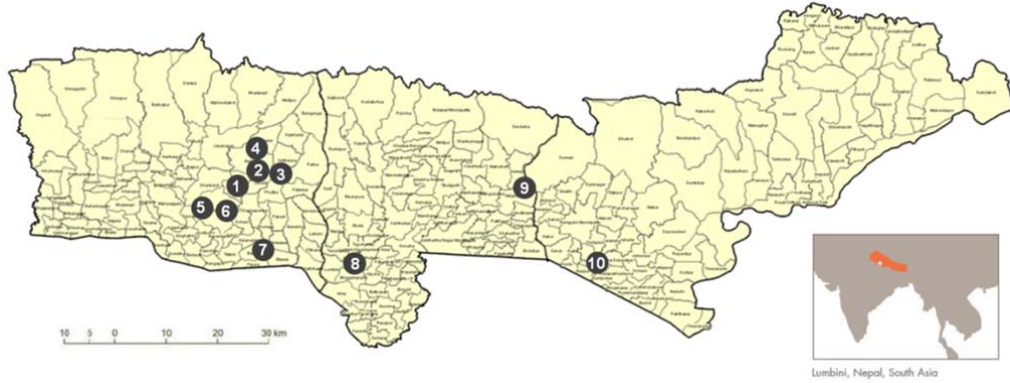
Early Lumbini Maya Devi Temple



The undeveloped situation in Lumbini area is actually an opportunity for Nepal to evolve a model case of local development to achieve social justice and promote good governance. ***Nepalese government has a unique responsibility to realize the potential for the world.***

Nepalese should overcome the political difficulties to develop ***Lumbini World Peace City*** where Buddhist philosophy can be nurtured. This report shows that Lumbini could serve as a beacon for humanity to live in harmony in the face of crises.

Major Buddhist Sites in the Greater Lumbini Area



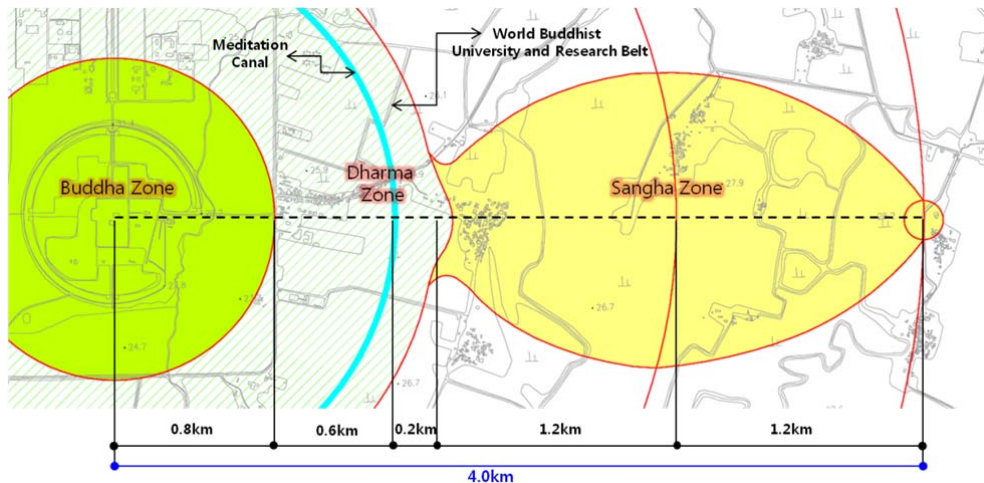
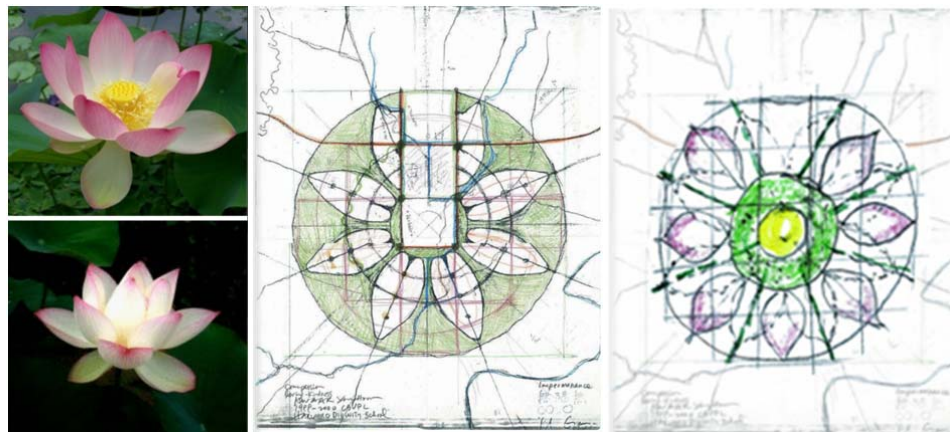
Kapilbastu District	❶	Tilaurakot	• Palace of King Suddhodhan, Buddha’s father
	❷	Niglihawa	• Birthplace of Kanakamuni Buddha
	❸	Araurakot	• Hometown of Kanakamuni Buddha
	❹	Sagarhawa	• Ruined stupa for King Mahamana – a martyr for people - built by King Asoka
	❺	Gothihawa	• Birth place of Krakuchanda Buddha
	❻	Kudan	• Buddha’s return home site after enlightenment, Nigroda Temple
	❼	Sisaniya	• Fortress of Sakya Kingdom
Rupandehi District	❽	Lumbini	• Birthplace of Buddha with Marker Stone
	❾	Devdaha	• Hometown of Mayadevi, mother of Buddha
Nawalparasi District	❿	Ramgram	• The only Stupa having the remains of Buddha intact



3. Planning Philosophy and Physical Layout Design

Since *Lumbini World Peace City* is to be a significant realization of Buddhist philosophy the KWAAK E.S.P.R.I. team has gone beyond the usual comparative analysis of urban physical patterns and holistic synthesis of planning practice. Instead of following the conventional reasoning and functional practice, the team decided to be faithful professionals to translate the philosophy and wishes of the world Buddhist leaders to the physical design layout of Lumbini World Peace City. To achieve that goal the team met with many global Buddhist leaders in the world in Sri Lanka, Vietnam, Myanmar, Bangladesh, Thailand, India, Malaysia, Korea, China, Japan, Australia, Africa, Europe and America.

The advice of the Buddhist leaders were very clear and simple precepts to follow. They want to see Lumbini to reflect the 3 Treasures of Buddhism and the shape of the Lotus as a symbol. Sri Lankan top Buddhist leader even recollected Lumbini's flat site condition and prophesized that Lumbini would be the largest Lotus in the world. Some of the interview reports appended to the main report will show that their comments were faithfully followed: The 8 truth paths canopied for pilgrims lined with Sal trees and Mango trees and the rural existing villages in Lumbini to remain with self-help improvement program.



It was a great challenge for architect and planners. KWAAC E.S.P.R.I. team analyzed their requests and wishes with the utmost respect. As mentioned in the Purpose Section of this Report, the Master Vision Plan aims to save all houses in the existing villages plus all the existing local roads and meandering river tributaries. Moreover, ***Lumbini World Peace City***, Vishwa Shanti Nagrama will provide various living places where residents and visitors can live and learn from one another. Questions after questions were raised as to how this city function to reconcile with the advice of the Buddhist leaders.

How could relationship between the form of Lotus and functions of the Buddhist 3 Treasures and 8 Truth Paths coincide? What do we do with the 1.6km×1.6km Sacred Garden in the South and with the LDT area of 1.6km×4.8km in relation to the advices? How best to allocate the projected population of 220,000 in the target year 2030 for the 8km×8km.

The current population of around 63,000 is expected to increase naturally to 100,000 in the target year of 2030. Social population induction 100,000 and Immigration of Global citizen 20,000 in the World Peace City. The Lumbini World Peace City will be planned for a target population of 220,000 with self-sustainable city systems.

Instead of orthodox planning practice, KWAAC E.S.P.R.I. tried to imagine the total picture with learned insights and inspirations that come with long time experience and with the fusing of many planning questions and design section by section solutions.. Some professionals and monks were cynical and critical, and it took them time to finally understand our rural urban mix plan. We were also enlightened to hear their different initial views.

First planning decision was Sacred garden should be in the center of ***Lumbini World Peace City***, Vishwa Shanti Nagrama, with the existing 1.6 km×1.6 km area and our plan should provide more protection for the Sacred Garden, especially all three sides of the Southern, Eastern, and Western boundaries of the Sacred Garden. And the Sacred Garden with the diameter of 1.6 km has designated forever as ***Buddha Zone***.

And ***Dharma Zone*** is created right outside of the Buddha Zone, the largest Dharma Wheel in the world with 3.2 km as its diameter and the width of 0.8 km. In the outer side of 1.4 km radius, in the rim of Dharma Wheel with 200 m in width, KWAAC E.S.P.R.I. allocated the ***world citizens university*** where institutes of Dharma learning and research centers of excellence in the world can be established. In this Dharma Zone, we should offer a natural forest setting mainly with Sal trees for peaceful meditation in original nature of Buddha's time. Pilgrims can rest in this natural forest before entering the Buddha Zone and the Sacred Garden.

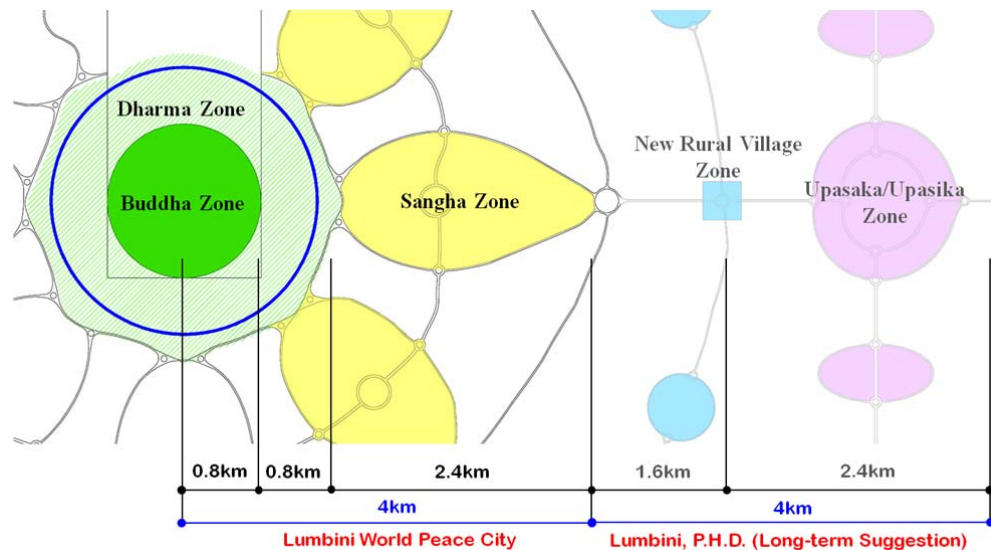
The **Sangha Zone** is laid at the 1.6 km outer side of the Dharma Zone. Seven new Sanghas are arranged around the Dharma Wheel and together with the present LDT management area to make perfect Lotus flower 8 petals.



With this land use pattern, KWAACK E.S.P.R.I. satisfied all 3 Treasures of Buddhism. In the following Chapter 3, the practical planning details of the land use will be explained.


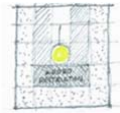
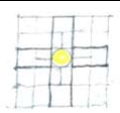
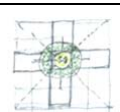
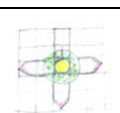
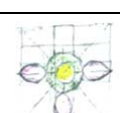
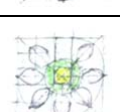

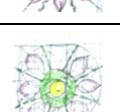
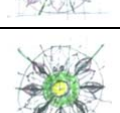
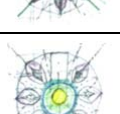
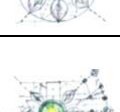
No commercial hotels will be allowed, but only Guest Houses run by residents. Again in the main report more details will be explained but based on the Nepalese tradition of “Atithi Devo Bhava,” we planned the Guest Houses in every Neighbor Family Unit in the Sanghas. This way economic benefits stay within the Sanghas and more than anything long term visitors and pilgrims will be able to live with residents to learn their way of life. Buddhist leaders also made it clear that in these three inner zones, no meat is to be consumed.

For the Long-term suggestion, another design decision is to introduce the idea of inviting peace-loving world citizens to live in **Lumbini Vishwa Shanti Nagrama** in the future, that is, Lumbini, P.H.D. in which **Upasaka/Upasika Zone** and **New Rural Village Zone** are located. They are introduced **outside** of the Sangha Zone. These Zones are sub-divided into **108 land parcels** where global participations are encouraged. Peace-loving people from all over the world can build their own architectural styles of houses and neighborhoods but with the **two strict conditions**: one is to build with their best ecologically sustainable and the other is the best neighborhood example of living together in harmony in their own cultures.

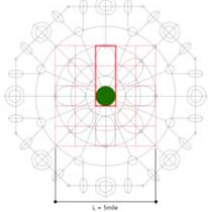
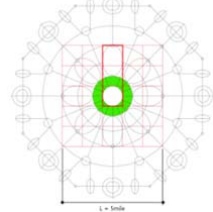
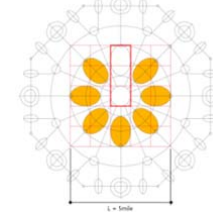
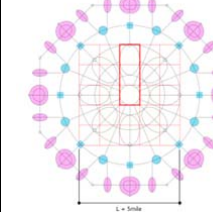


Design Note on Spatial Structure Formation Process

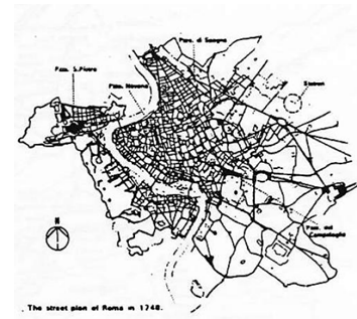
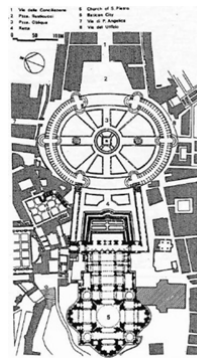
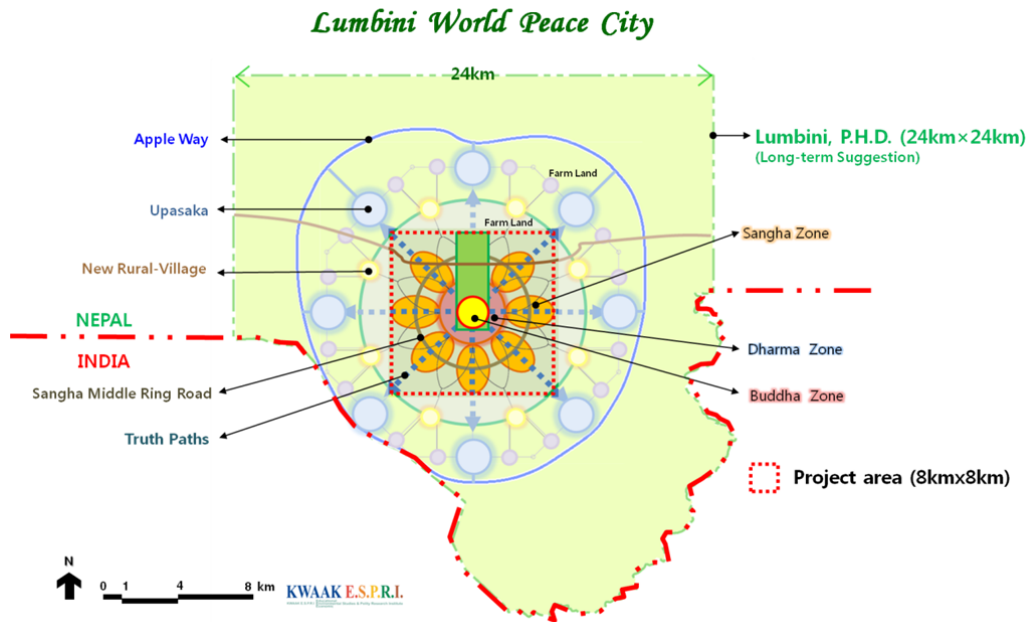
The following diagrams in this Summary Report explain how KWAAK E.S.P.R.I. design arrives at *Lumbini World Peace City* Master Plan.

	1. First step was to respect the existing conditions and make the 1.6km x1.6km Sacred Garden zone to be forever protected and designated 1.6km diameter circular area as “Buddha Zone,” or the “Enlightened-one Zone.”
	2. Buddha Zone’s adjoined southern part of 1.6km × 4.8km has to be protected. The southern part has not been designated as restricted as the western and eastern 1.6km × 4.8km restricted areas. There are already hotels and other constructions that have been built both at the southeastern and southwestern tips.
	3. Introduction of additional 1.6x4.8km rectangle areas to the east, south and west together with the existing northern area are natural extension for the future growth. Each must provide pedestrian paths leading to the Buddha Zone.
	4. Another 0.8km radial rim around the Buddha Zone is designated as “Dharma Wheel” of natural undeveloped open forest area for the seeking and meditating of truths and to protect the Buddha Zone Sacred Garden.
	5. Outside of the Dharma Wheel, the three new rectangles are trimmed as pointed at the outer side to begin to resemble flower petals.
	6. The areas are trimmed on both sides to open up the rural areas leading to the Dharma Wheel Zone, and the shape looks much more petals of Lotus.
	7. Existing northern planned rectangle area, seven other components in the shape of the Lotus petals are laid and designated them as the Sangha Zones. The length of the petal is about 2.4km, and the area size is about 3 square kms.
	8. Eight truth paths through the rural area and eight truth paths through the eight Sangha Zones are planned to lead to the Sacred Garden. The northern Sangha Zone stays as originally planned.
	9. The second layer petals of Lotus blossom were drawn in-between the eight Sangha Zones, and they become the open space pedestrian paths as well, providing pastoral walking.
	10. The Monastery area is designed to be in the core of each Sangha Zone which is surrounded by residential areas. The residential areas will be for Buddhists.
	11. Buddhist university and institutions of higher education are needed and are allocated at the outermost ring area of the Dharma Wheel.
	12. For the peace-loving people and world citizens Upasaka/Upasika Zones of 108 different eco-villages are provided at the outside entry points of Lumbini. To preserve existing farming and the need for some separation, these Upasaka and Upasika Zones were located another 4km away from the outer end of Sangha areas, 8 km away from the core of the Buddha Zone.

Lumbini Vishwa Shanti Nagrama

Project Area(8km×8km)			Lumbini, P.H.D. (Long-term Suggestion)
Buddha	Dharma	Sangha	New Rural Village and Upasaka/Upasika
			

After extensive transportation and circulation system analysis, KWAAK E.S.P.R.I. introduced the ring road for the outer periphery of Upasaka/Upasikas.



4. Planning Components

This section summarizes the *Land Use, Transportation and Circulation, Landscape, Water Supply and Sewage Treatment, and Ecological Preservation, Public Facilities and other infrastructure.*

Sangha Areas Developable Land Analysis: The first step in designing a specific Sangha community is to fully understand its surroundings, both natural and man-made, and to identify the development constraints and opportunities, with specific goals and objectives for developing that particular Sangha. *The shapes and the location of existing villages, waterways, farm roads and wetland and soil bearing capacities will determine which portions of the Sangha are to be developed and which portions to be left alone, restored, enhanced, or otherwise preserved.*

It is determined that *1,560 ha of 6,475 ha* is to be developed into the seven Sangha Zones.

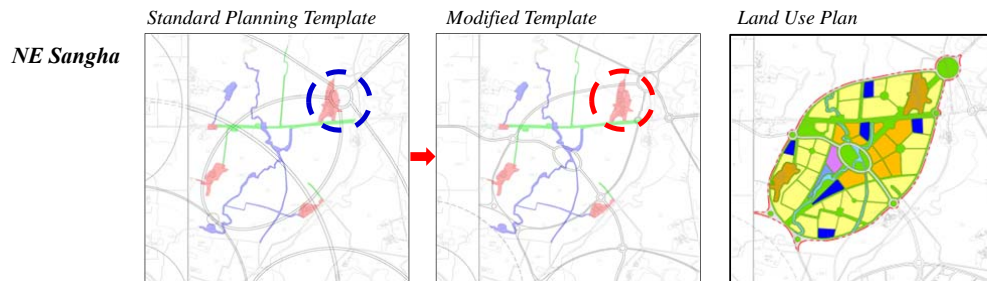
	Project Area	Sangha			Non Sangha Area
		Total	Developable	Protected Farmland	
(ha)	6,475	1,951	1,560	391	4,524
(%)	100	30	24	6	70

Note: 1ha = 10,000 m²

New Sangha Land use Plans to Harmonize with the Existing Villages and Roads

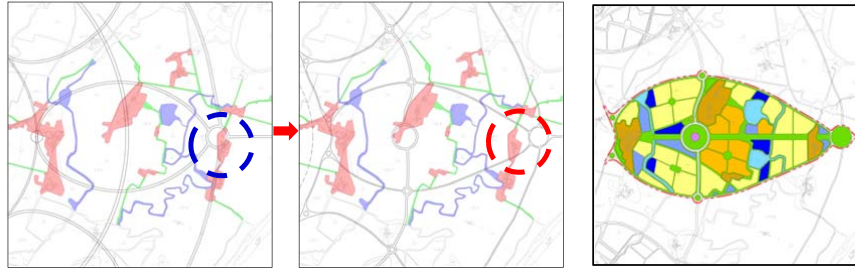
Residents and visitors to Lumbini will stay in the Sangha Zones where they will learn to live together. The Master Vision Plan harmonized the Lotus shaped Sanghas with the existing villages, rural roads, river tributaries and other natural features.

In each Sangha, the core area is for the monasteries and religious and two middle schools and medical facilities, the outer parts are for with elementary schools and clinics residential area and guest houses. With this two basic land use components, the following land use and circulation plans of all seven Sanghas are shown. The Lotus flower petal patterns are modified where necessary to harmonize with internal land use and circulation patterns. The following seven Sangha plans show the evolution of their harmonized detail land use.

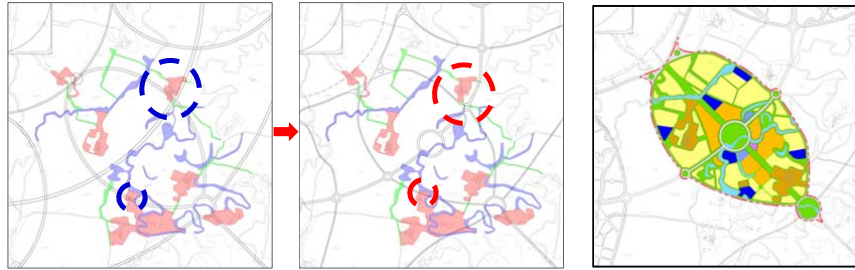




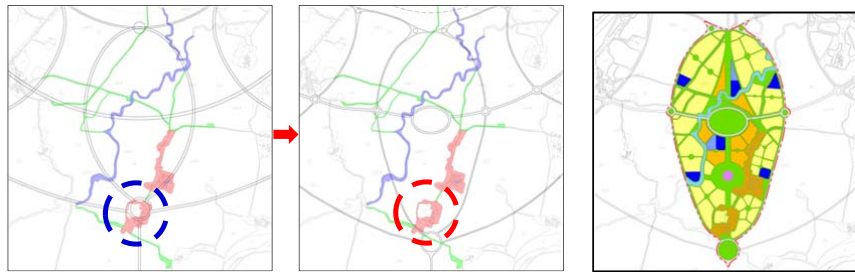
EA Sangha



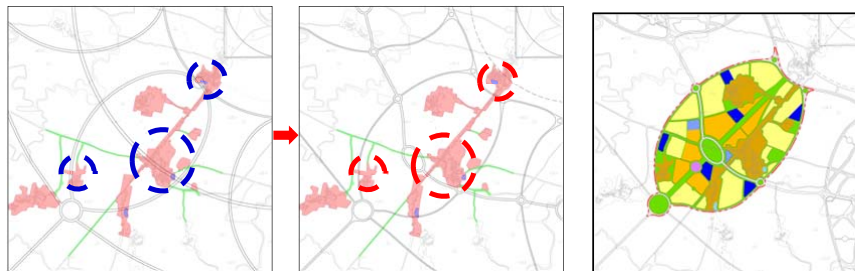
SE Sangha



SO Sangha



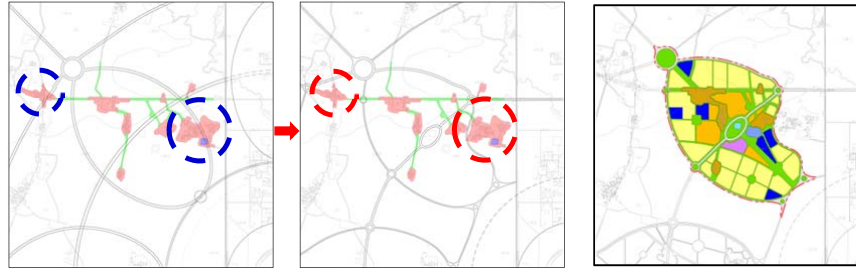
SW Sangha



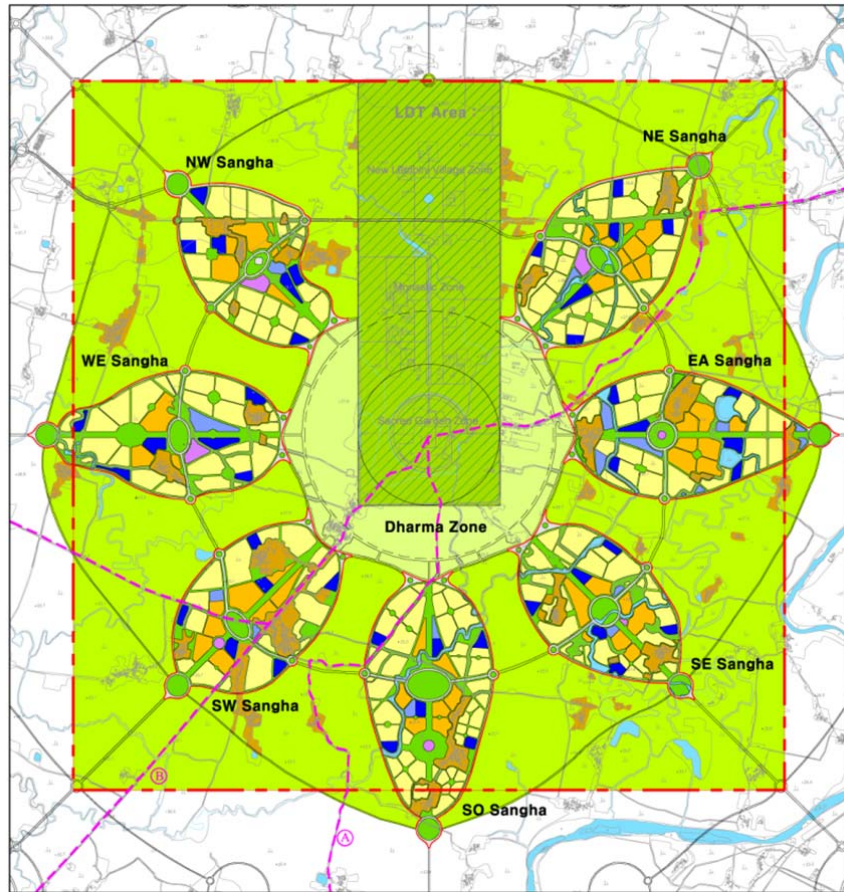
WE Sangha



NW Sangha



Sangha Zone Land Use Plan



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		Area (ha)	(%)	Sangha Zone							
				NE	EA	SE	SO	SW	WE	NW	
Grand Total		6,475	100.0	-							
Sangha Zone	Total	1,951	30.1	295	293	250	309	276	285	243	
	Residence	1,105	17.1	167	149	146	168	176	151	149	
	Existing Villages	165	2.6	14	32	18	20	50	14	17	
	New Housing site	781	12.1	123	104	110	126	89	121	108	
	Mixed Use	160	2.5	30	13	18	22	37	16	24	
	School	90	1.4	13	14	11	11	12	15	14	
	Public Facilities	28	0.4	2	9	2	3	3	7	2	
	Religious Facilities	18	0.3	4	2	1	2	1	4	4	

River	54	0.8	8	21	12	10	0	2	1
Open Space	495	7.6	78	61	59	95	65	86	51
Road	160	2.5	23	37	19	20	19	20	22
Farmland	2,831	43.7	-	-	-	-	-	-	-
River & Lake	106	1.6	-	-	-	-	-	-	-
Existing Villages	252	3.9	-	-	-	-	-	-	-
Pedestrian Way	33	0.5	-	-	-	-	-	-	-
Road	92	1.4	-	-	-	-	-	-	-
LDT Area	786	12.1	-	-	-	-	-	-	-
Dharma Zone	424	6.5	-	-	-	-	-	-	-

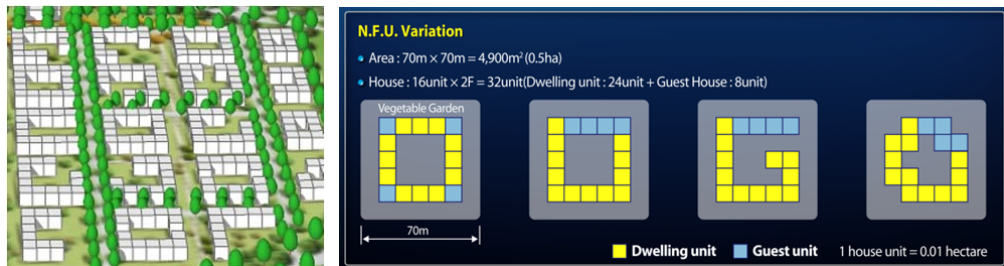
The composite plan of all seven Sanghas land use is illustrated. We respected the original LDT area, and it is completely untouched and preserved as shown in darker green color, and all of the existing farming villages shown in tan color are also completely preserved, along with the large farming areas between the Sanghas. The LDT area could become assimilated to be another Sangha so that the perfect Lotus flower petals will be realized.

Modular Housing Concept used for the Sangha land use: Within Sangha Zones, residential areas will be planned for people to live together according to Buddhist philosophy and precepts. For neighborhood design guideline, the module suggested as a guideline is housing unit for the extended family or a co-habitation group. This new concept of Neighborhood Family Unit (N.F.U.) will include residents and visitors. They become extended family members.

The concept envisions a typical multi-family courtyard, or an extended-family housing cluster, but the neighbors and family communities all take part in the education of their N.F.U. children, the health of the elderly, and all other communal services. Each N.F.U. provides guest house units for visitors and pilgrims, instead of the conventional hotel rental option.

The courtyard forms are approximately 70 m square, or about 4,900m². N.F.U.s promote friendship among the members of the cluster, where extended family members will have a safe enclosed place. The housing module shapes or floor plans should be flexible and sensitive to topography, preserving existing trees and natural elements. And the privacy of a single family is also provided with separate doors.

Based on 12 dwellings on the one floor and 4 guest dwellings per one N.F.U., the building height in this modular example is up to 4 stories maximum for 48 dwelling units per NFU.



The Sangha Zone is planned for low-density development. The total size of the Sangha Zone is 1,951 ha, and its developable area size is 1,560 ha.

- Project Area : 6,475 ha
- New housing Area : 781 ha
- New population : 160,000
- Housing Density : 205 pop / ha

Aerial View
NE Sangha



Aerial View
EA Sangha

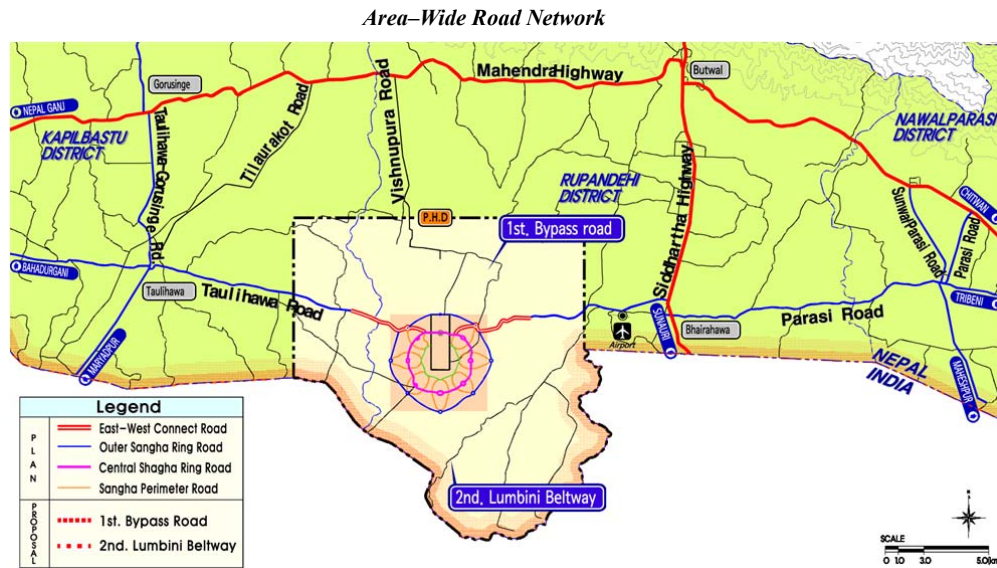


Aerial View
SW Sangha



The Road and Transportation Plan

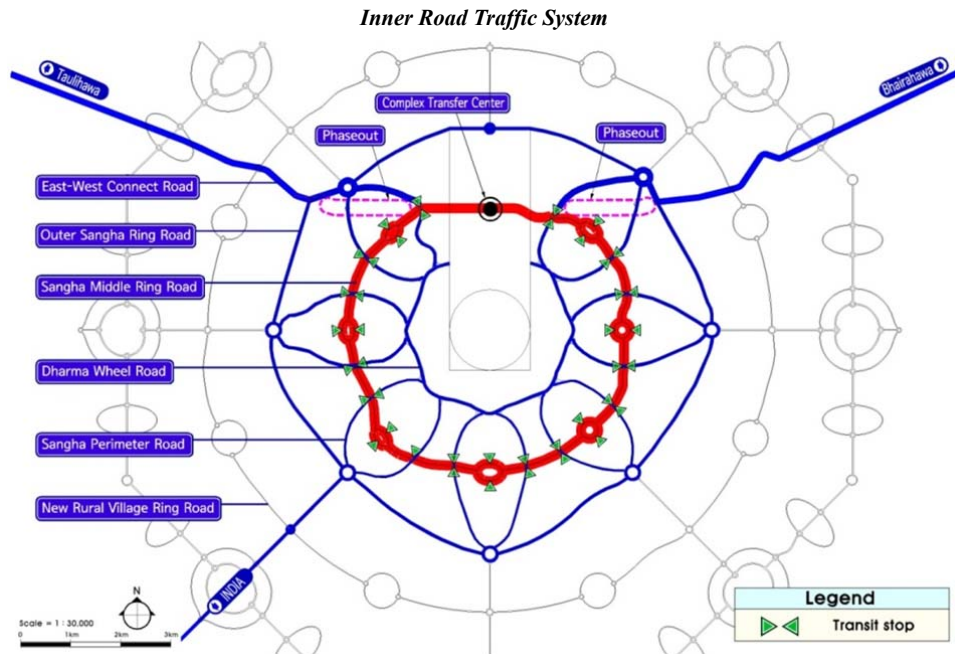
Regional Road System: As the east-west axis of arterial or regional traffic, Taulihawa road (B=20m, 4 lanes planned), which intersects Mahendra highway and the business target areas, we establish a smooth access plan by using connector roads between the Siddhartha Highway and the southern walking road (B=25m, 2 lanes planned) as the south-north axis.



Lumbini World Peace City Road System: Lumbini World Peace City will have a radial or ring-patterned structure in the shape of a Lotus. The Taulihawa-Bhairahawa route will remain but limited to local traffic only. Several Ring Roads are created for vehicular and public transit flows.

- **Dharma Wheel Ring Road:** The road is among 7 Sanghas and Dharma Zone. Primary circulation road to the Sacred Garden. Allowing only Rickshaws, bicycles, cows, wagons, and mass-transportation. Peace Research and Science of Mind area is connected to the Ring Road.
- **Sangha Middle Ring Road:** This will be the primary arterial access road into the heart of the Sangha communities, linking all 8 Sanghas together in one central beltway. This artery is a multi-lane roadway accommodating the majority of Sangha motorized traffic.
- **Sangha Perimeter Road:** This is circulation road to the outer perimeter of each Sangha and connector to the Sangha Middle Ring Road.
- **Sangha Outer Ring Road:** At the outer edge of the Sangha system will be an auto-oriented, narrower, lower volume roadway providing access to the outer neighborhoods and Upasaka communities.

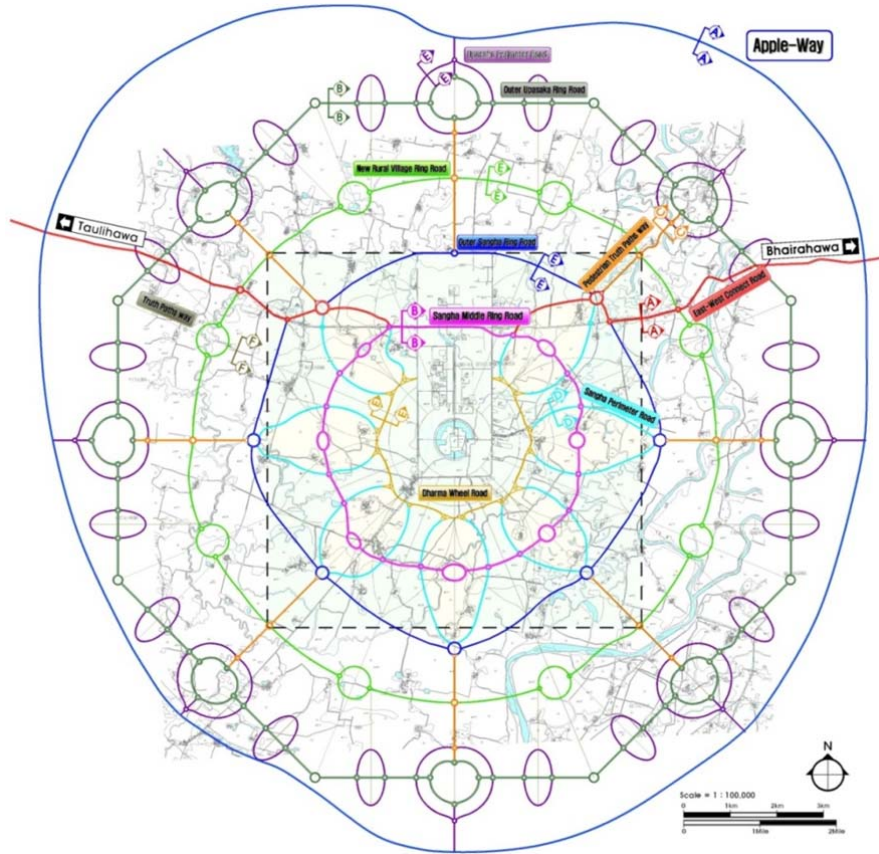
Sangha Middle Ring Public Transit: For the non-polluting and trackless public transit system, electric power strips are recommended to be buried 30 cm under the road surface and connected to Nepal's national grid. Pick-up equipment underneath the vehicle then collects power through non-contact magnetic induction which is used to power the vehicle prime-mover and for battery charging.

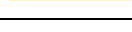





Additional Road circulation plan are;

- **New Rural Village Ring Road:** This is a ring roadway serving each of the 8 planned new rural villages, providing access to the Upasaka communities, the Outer Sangha Ring Road, and to existing roads to agricultural villages;
- **Upasaka Ring Road:** A road connecting to 16 Upasaka/ Upasika zones; providing access roads to the border of Upasaka/Upasika;
- **Beltway called Appleway:** The current east-west Taulihawa-Bhairahawa road, projects heavy traffic in the LDT area. Appleway will be a 57 km long 4 lanes regional by-pass to prevent unrelated cars from congesting **Lumbini, P.H.D. KWAAK E.S.P.R.I.** already sought the Nepali Ministry of Physical Planning approval for its construction.

Lumbini World Peace City Road and Circulation Plan
 (Including Long-term Suggestion of Lumbini, P.H.D.)



Symbol	Road Name	Section	Length(km)	Width(m)	Lanes	Note	
Lumbini World Peace City		Sangha Middle Ring Road	B-B	18.0	28.0	4	New
		Sangha Perimeter Road	D-D	40.0	19.0	2	New
		Outer Sanha Ring Road	E-E	27.0	19.0	2	New
		Dharma Wheel Road	E-E	9.0	19.0	2	New
		Pedestrian Truth Paths	F-F	115.0	5.0	-	New
Lumbini, P.H.D. (Long-term Suggestion)		New Rural Village Ring Road	E-E	53.0	19.0	2	New
		Upasaka Perimeter Road	E-E	87.0	28.0	4	New
		Outer Upasaka Ring Road	B-B	48.0	28.	4	New
		Truth Paths	C-C	19.0	25.0	4	New
		Pedestrian Truth Paths	F-F	88.0	5.0	-	New
		Apple-Way	A-A	57.0	20.0	4	New
Regional Road		East-West Connect Road	A-A	41.0	20.0	4	Expansion

Water Supply and Sewage Treatment Plan

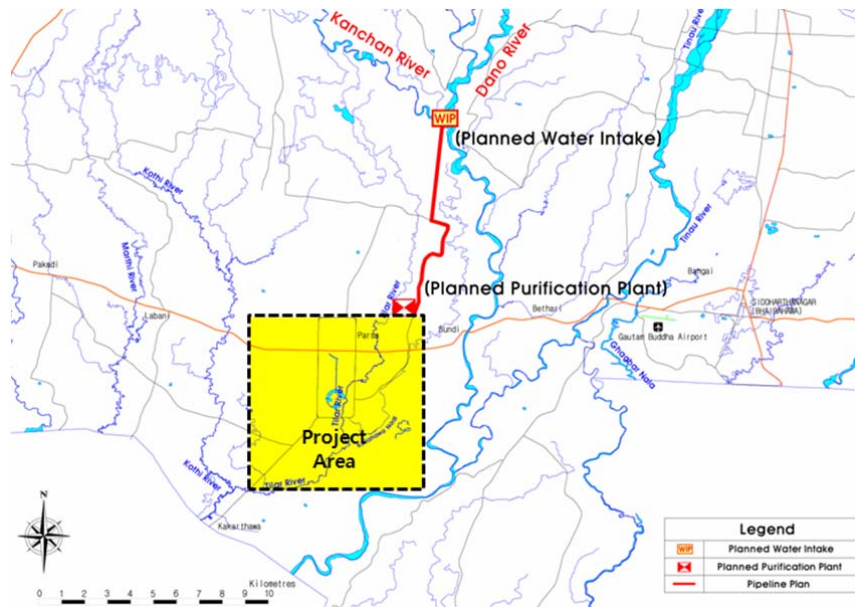
Water Supply: The capacity of water supply plan is recommended for 250,000 for the 8 km × 8 km area as follows.



Planned Water Supply

Year	Planned Population	Water Coverage (%)	Water coverage population	Planning per-unit (ℓ/person · day)	Planned water supply (m ³ /person · day)
2020 (Phase 1)	160,000	109.3	175,000	180	31,500
2030 (Phase 2)	220,000	113.6	250,000	200	50,000

Water Source and Pipeline Plan

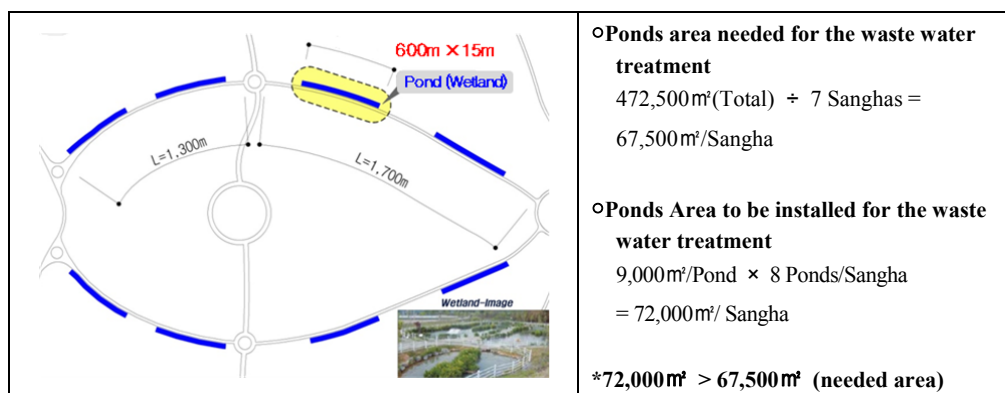


Sewage Treatment: The plan is to make floating content leached by public septic tank only the sewage is conveyed by pipes to biotic treatment ponds be naturally purified or be used as agricultural irrigation. As a sewage treatment system, the team planned to build 8 sewage treatment facilities, one for each Sangha. **World Peace City** will be water “pollution free”.

-	Generation Quantity of Wastewater (m ³ /day)	Artificial Wetland Area Purifying one day Wastewater	Required Area for Artificial Wetlands (m ²)	Note
Target Place	47,250	10 m ² /m ³	472,500	Reference depth of artificial wetland: 1m

Source: 1. EPA, *Onsite Wastewater Treatment System Manual*, 2002

2. Yonsei University, *Natural purification system of wastewater generated in one family houses*, 2006



Public Facilities

Schools and Medical Clinics: Since many elementary students in urban areas do not have the chance to understand where and how foods are produced, the 4 elementary schools in each Sangha will be placed between the rural and Sangha residential area to let children to experience the rural life from childhood. Two middle schools will be situated on both ends near the pilgrim's path in the Monastery area, so that students can have more affinity to basic Buddhist ethics as exhibited in the Monasteries.

There will be eight high schools in the *Lumbini World Peace City* strategically located between Sangha and Upasaka/ Upasika area near the inner tip of the new rural village. The purpose is to let high school students practice harmonious social relations in close proximity with different nationals and culture groups among Sanghas, Upasakas/Upasikas and existing and new rural villages. Health Clinics are attached to the elementary, middle and high schools for the easy access and convenience of students and local residents. There will be one general hospital in each Sangha.

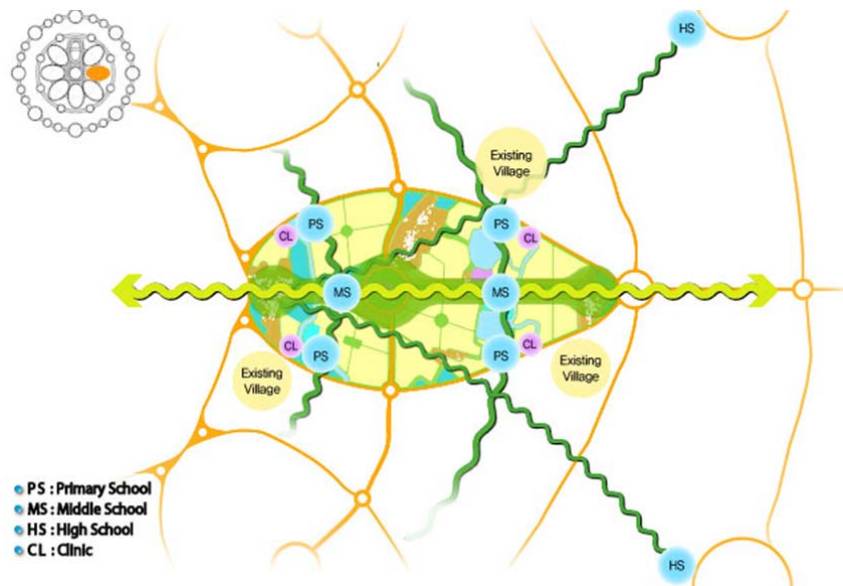
		Number	Note	
7 Sanghas	Primary School	28	4 Schools / Sangha	8,000m ² / School
	Middle (Lower Secondary & Secondary)	14	2 Schools / Sangha	10,000m ² / School

Outside Sangha	Higher Secondary	8	1 School / Sangha	12,000m ² / School
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Public Services: Each Sangha zone will have a community service center to house 1 police station, 1 fire station, and 1 post office.

		Number	Note
7 Sanghas	Community Center	7	1 per Sangha 1,500m ² /Community Center
	Police Station	14	2 per Sangha 1,500m ² /Police Station
	Fire Station	7	1 per 2 Sangha 1,500m ² /Fire Station
	Post Office	14	2 per Sangha 1,500m ² /Post Office

East Sangha Public Facilities Distribution Concept



Open Space and Landscape Plan

Although **Buddha Zone** is beyond the purview of this Study KWAAK E.S.P.R.I. would like to make 3 suggestions for the future improvement.

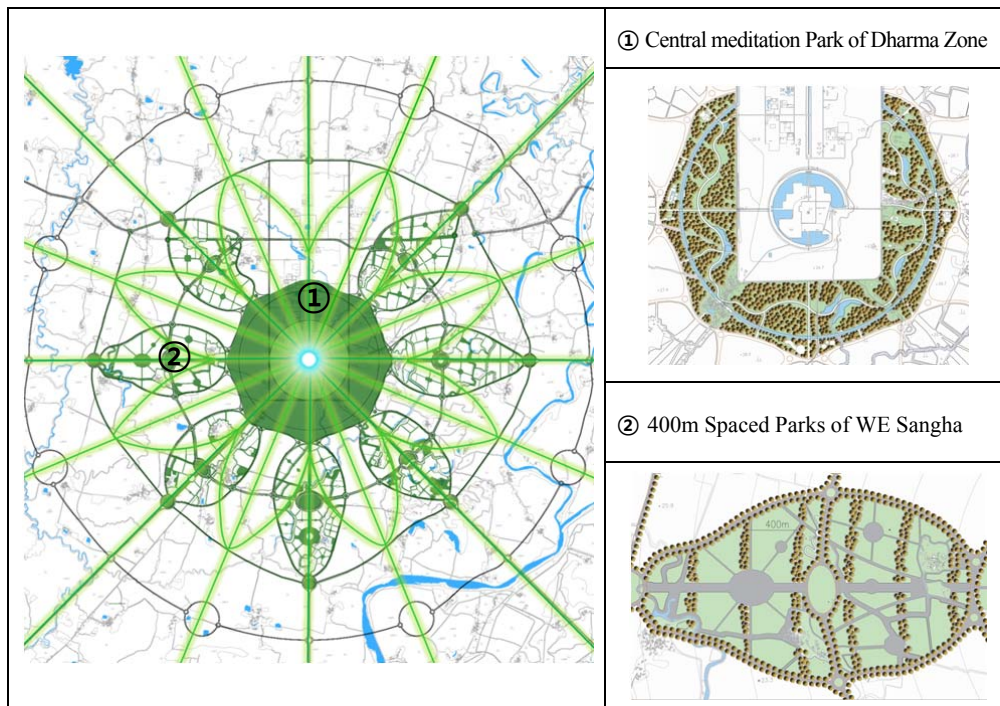
Firstly, it is necessary to prevent underground water flowing into the Maya Devi Temples area, and secondly, to allow more open space where many devotees to participate in large gatherings. There must be also new design for the Temple as it will be the main focal point in the whole **Lumbini World Peace City** And creative design is necessary to guide the massive visitors much more efficiently.

Dharma Zone is a major natural forested area which function as central meditation park. Many Buddhist leaders asked us to revive the natural forest with Sal Trees and other original plant material as it was in Buddha’s time. There will not be completely no man-made structures in the Dharma Zone and this was the request made by the majority of Buddhist leaders.

Each Sangha Zone has six major lateral green street belts passing through as pedestrian links to other Sanghas rural open spaces. Within the residential areas there are also green pilgrims paths. At the core of each Sangha, there will be a monastery with a major stupa erected. **Each Sangha need to have distinctive and different stupa in form and style.**

Parks offer rest, play, quiet meditation, appreciation of nature and an “escape” from the urban environment. Each park should be carefully planned and designed to fulfill its intent and function, and each park should retain its own individual character within the overall “green scape” environment of the Peace City. At a minimum of every 400m’s spacing in each Sangha, there are greenway for the pedestrians and bicyclers.

Open Space System





Summary Report



Sangha Zone Monuments and Stupas



Landscape: The new skyline in all Sangha Zones except the Monastery will be 4 stories high residential architecture. With the rural villages and low-rise neighborhood, **Lumbini World Peace City** will be kept low and pastoral.

There are 8 truth paths through the main axis of all the Sanghas. They are all continuous open pedestrian way. These pathways will not cross any streets and will have 8 km unobstructed long vista. These eight truth paths will be shaded with canopy trees for the protection from summer heat. Eight more truth paths will be provided in rural open area preserved between Sanghas. These optional paths are inter-connected with the Sangha pedestrian paths **making the shape of second layer of Lotus petals**.

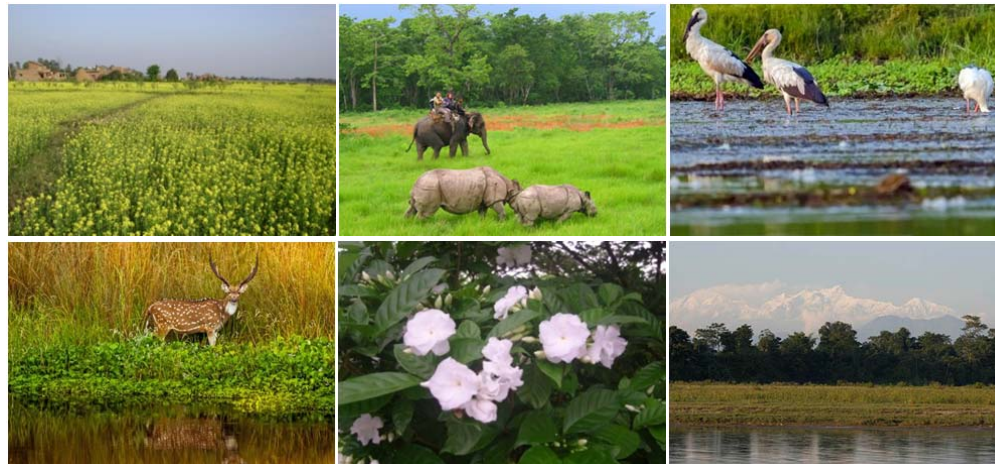
Along all the 8 Truth Paths in Sanghas and 8 additional Truth Paths in the rural area, there will be plots for the deceased. We recommend the size will be completely uniform; Nobody is above or below, and nobody is bigger or smaller.

For example, single unit size would be 36cm×36cm and a family unit 108cm×108cm. **Lumbini World Peace City** Commission or City Serverment need to receive the donation from the deceased family or relatives.

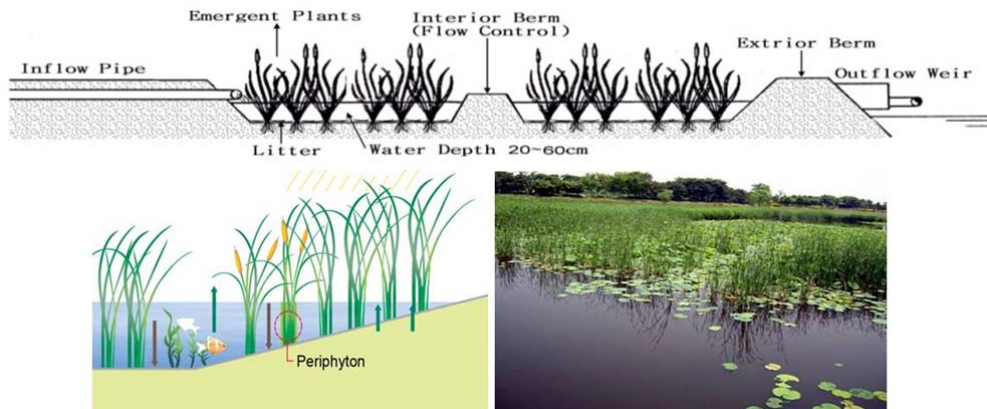
There will be Buddha statue installed as a major landmark at the entry way to the Sanghas from Upasakas/Upasikas. These Buddha statues can be donated by the Buddhist community.

Environmental Protection and Flood Prevention of Disasters Plan

Environmental protection management: The Development of the available land will protect the ecological environment and respect important wildlife habitat. Adequate green space and buffer areas will be established to protect the natural environment through population density planning and exclusion of river tributaries and marshlands.

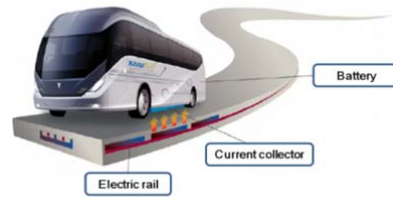


Sewage management: Lumbini World Peace City will have natural waste water treatment through the flow sequence of domestic wastewater → septic tank → artificial wetlands (treatment ponds) → used for agricultural water



Noise management: Since ***Lumbini World Peace City*** is organized based on a pedestrian oriented circulation system noise reduction measures are important for the local road environment.

The on-line-electric-vehicle OLEV will be a completely no traffic noise public transit system. This bus system is in already use in KAIST, Korea Advanced Institute of Science and Technology. The first OLEV will be introduced to the busiest Sangha Middle Ring Road as the mass-transportation.



* KAIST OLEV System

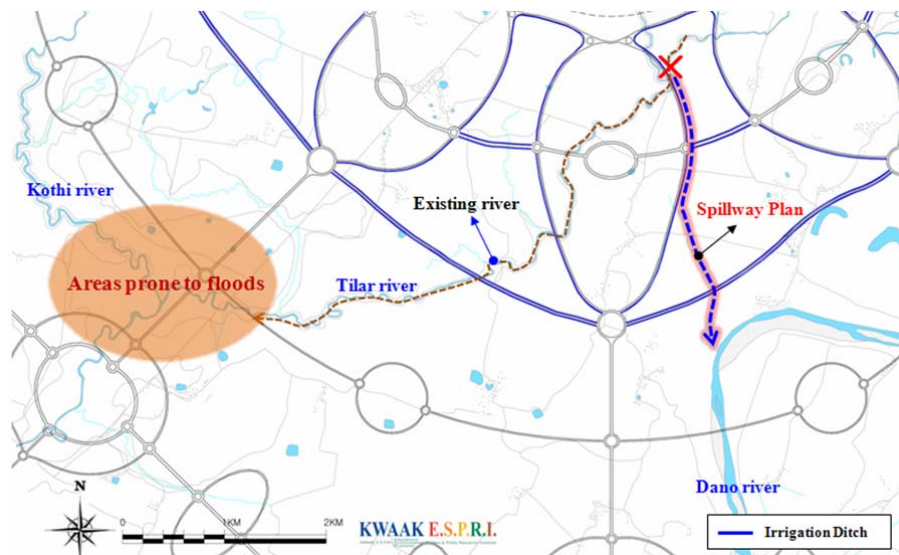
Flood Disaster Prevention: To keep development area safe and above the flooding zones, a significant amount of soil fill material was necessary to build up enough land to elevations high enough to protect many roads, houses and other building in Sanghas, especially during monsoon flooding.

The possible flooding areas will be excluded from developable land from the very beginning of our plans. And to excavate new water channels and ponds to generate fill material to raise up the nearby areas. However as Lumbini may need land fill material in the future, land cut areas to be identified in the nearby Churia Mountains range where new recreational or other facilities need land cuts.

Difficulties with farming in Lumbini begin with the obvious overflow of rivers in monsoon season and shortage of irrigation and drinking water in the dry season. The key is to expand and improve the irrigation facilities in line with the Master Plan to secure water resources for any farm lands. The following plan shows the irrigation and waterway plan.



Irrigation and Water Way Plan



5. Implementation Plan

In the past, wealthy nations or charities usually donated money and resources to programs for the developing countries, and may send aid workers to oversee these projects.

Today, more pro-active and integrated partnerships and “hands-on” teaming relationships have emerged between nations. Therefore the Nepal Government should engage the developed countries, worldwide Buddhist groups and private foundations who recognize the value of *Lumbini World Peace City* as a “humanistic project” of the highest order. In order to succeed, all levels of Nepal Government and Buddhists groups must actively partner with the donor groups, and participate from the initial planning stage to the final construction.

After a critical assessment of the financing, phasing and marketing aspect, KWAAK E.S.P.R.I. laid out a strategic plan to secure potential governmental subsidies plus public and private funding that can help realize *Lumbini World Peace City* Master Plan.

Lumbini World Peace City Implementation Strategy will include the following funding sources and fund-raising methods:

- Partnership with all of the ODA countries in terms of matching funds to the future land tenure from the 7 Sanghas.
- Encourage active participations from global Buddhist organizations, foundations, individual Buddhists and all peace-loving people in the world.
- Seed money from Public funding and Private donations.
- Donations from pilgrims to *Lumbini World Peace City*

Lumbini World Peace City is to be developed in an orderly manner based on the Master Plan. No residential or rural agricultural lands will be allowed to develop or build on their own without the timely approval and careful monitoring of *Lumbini World Peace City Commission* which is to be set up with full legal authorities to use the funds to execute the Master Plan.



Establishing the Lumbini World Peace City Commission

Purpose: This is the exclusive organization to prepare the Lumbini World Peace City project.

It is charged to plan and promote the appropriate developable sites, source and attract private capital, and select the project development methods that can reinvest profits from the demonstration projects, and fully utilize the initial Government financial support funds, ODA funds, grants and donations from all other sources.

Organization: Members should be global professionals appointed by local societies, Buddhist organizations, the regional district and the Nepal central government. The following are the suggested groups for the ***Lumbini World Peace City Commission*** members. For working-level organization, public organization, public corporation, and foundation are possible. A mixed form of public organization and corporation is recommended to promote foreign private investment, participation of global Buddhist organizations, and aids from ODA countries.

- Buddha Task Force Team from ‘Governmental bodies’
- Domestic and Global Buddhist organizations
- Architects, Environmentalists, Landscape Architects, and Engineers
- Agricultural experts from farming communities in the world
- Health and Healing experts in the world
- Global citizens organizations
- Local representatives from *Lumbini Committee of 88 (this committee was formed in Lumbini on 27th of June 2014.)*

Commission Chair: The Chairperson – A person who is completely dedicated and responsible to Nepal as well as to the world - should be absolutely financially independent to exemplify consistency and transparency in the decisions made by the Commission.

8 Councils in the Commission: In the process of final presentations and discussions in Kathmandu and Lumbini area, generally the following councils were advised to be established both in the national and local levels.

- Infrastructure Council
- Capacity Building Council
- Quality of Daily Life Council
- Job Opportunity Council
- Organic Agriculture Council
- Eco-Culture Council
- Fund Raising Council
- Transparency Management Council

Glocal Committee of 88: Lumbini World Peace City Glocal Committee 88 is suggested at the final Lumbini presentation and discussion on June 27th 2014. They will become a citizen participatory organization. As in the ***Lumbini World Peace City Commission***, there will be corresponding 8 Councils and each Council will have 11 members. This Committee will perform a very vital role from the very beginning of the implementation of the ***Lumbini World Peace City*** Master Plan until the target year of 2030.

Lumbini World Peace City Development Plan

Implementation Strategy: Principally, each Sangha perimeter road and irrigation canal should be prioritized for early implementation, so that land parcels within each Sangha can be constructed multilaterally and simultaneously as the investment conditions and development demands call for.

To realize the ***Lumbini World Peace City*** Vision, new infrastructure had to be constructed in all the main road network: the perimeter roads around the 7 Sanghas. Also, the pilgrims pedestrian ways for the Eightfold Truth Paths should be built as well. With a completed road network, developable land parcels designated in the Master Vision Plan can be easily developed anytime. Roads with irrigation system along them can be simultaneously constructed as early as possible by Nepal government even before the ***Lumbini World Peace City Commission*** is established. The roads may not need to be wide or paved to fit within budget.

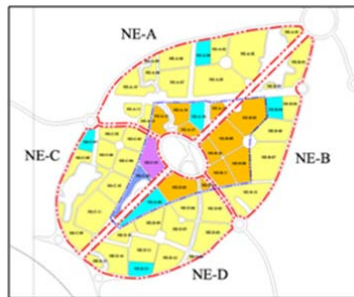
Sangha Zone: All of the existing villages and roads, river tributaries, forested green areas and lakes are completely protected in the Master Vision Plan. These developable land parceled areas designated for the new residents and monastery areas are recommended to be developed only by Nepal and global Buddhists communities, since Sangha is where Buddhists Dharma will be taught and practised.

New Rural Villages and Upasakas/Upasikas(Long-term Suggestion of Lumbini, P.H.D).: Same principle holds for the protection of the existing villages and roads, forested green areas within the Upasakas/Upasikas and New Rural Villages. Only differences are that land parcels designated in this Master Vision Plan can be developed by non-Buddhists from the world as long as they are proven to be peace-loving people and organizations. There are 108 land parcels in the Master Plan and one parcel for one country. There are two clear conditions for the global collaborative participants for their development. First one is for each country to make their best possible ecologically proven example. Second one is exemplify their best possible community design where residents sustained living in harmony. Other than that, there are no limitations. ***Lumbini World Peace City*** will have diversified living environments.

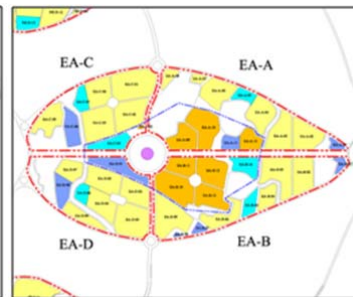
Development Land Parcels

Sangha Land Parcels: Considering the pressured situation, it would be desirable to construct all 7 Sanghas perimeter roads and irrigation canals in the first phase. All land acquisitions must be done as soon as possible to enable the construction of the perimeter roads and the irrigation canals for all the 7 Sanghas.

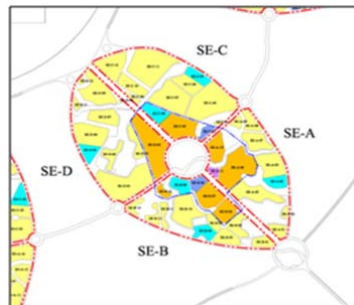
NE Sangha



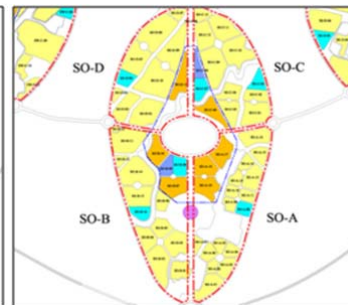
EA Sangha



SE Sangha



SO Sangha



SW Sangha



WE Sangha



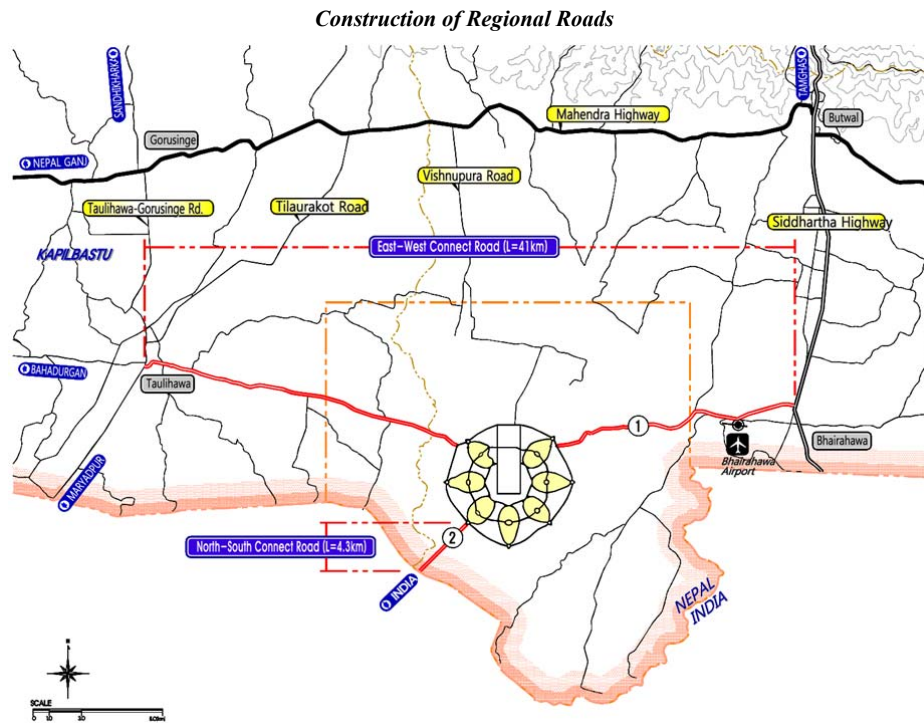
NW Sangha



Infrastructure Construction

Construction of Regional Roads: For the improvement of the mobility and accessibility of the regional traffic flow and the tranquility to be guarded of **Lumbini World Peace City**, building a network of arterial roads outside of **Lumbini World Peace City** is strongly suggested.

Existing East-West Connector road is recommended to widen the current 2 lane roads to 4 lanes; and the northern part Appleyway is to be constructed as soon as possible.



	Symbol	Name	Length (km)	Lanes	Width (m)	Area (km ²)	-
①		East-West Connect Road	41.0	4	20.0	0.820	Wide
②		North-South Connect Road	4.0	4	25.0	0.100	New
Total			45.0	-	-	0.920	-

Road Network Construction within 8km x 8km Planning Area: By building a concentric road network and establishing a trans-configuration, based on the Buddhist spirit, traffic within business areas and between all parts of the Project will be improved.

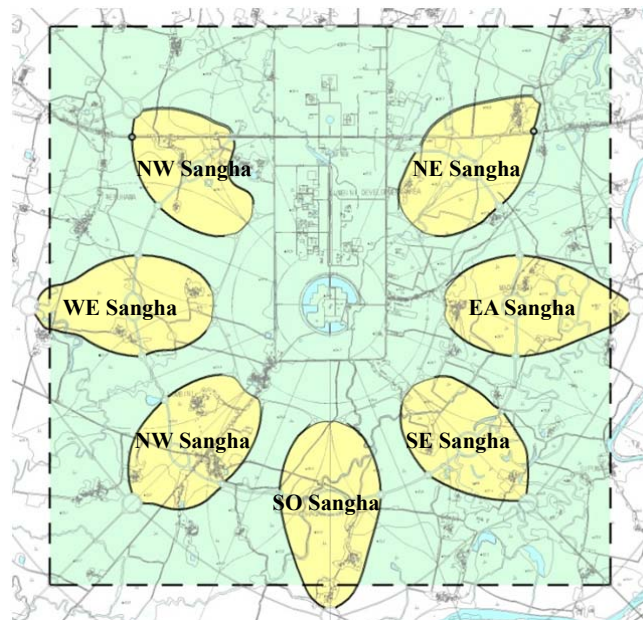
The Internal Road Network within Planning Area


No.	Name	Length (km)	Lanes	Width (m)	Area (km ²)
③	Sangha Middle Ring Road	18.0	4	28.0	0.504
④	Sangha Perimeter Road	40.0	2	19.0	0.760
⑤	Outer Sanha Ring Road	27.0	2	19.0	0.513
⑥	Dharma Wheel Road	9.0	2	19.0	0.171
⑦	Pedestrian Truth Paths	115.0	-	5.0	0.575
Total		209.0	-	-	2.523

Land Development

The total area of 7 Sanghas is 1,951 ha. The Land Development can start at any land parcels after the perimeter roads are constructed.

Land Development Area



Category	Area (ha)	Remark
 Sangha	1,951	278.7ha × 7EA = 1,951 ha

Estimated Project Cost for Lumbini World Peace City

Road Construction:

Total length of roads is 209 km and the estimated cost is US\$229 million. Adding the regional road extensions of 45 km and their cost of US\$97 million, the total cost will be US\$326 million for 254 km of roads.

Roads		Length (km)	Estimated Unit Rate(US\$/km)	Total Amount (million US\$)	Remark
1	-	41.0	2,137,000	87	Regional Roads
2	North-South Connect Road	4.0	2,466,000	10	
Sub-total		45.0	-	97	-
3	Sangha Middle Ring Road	18.0	3,289,000	59	8 km×8km Area
4	Sangha Perimeter Road	40.0	1,842,000	73	
5	Outer Sangha Ring Road	27.0	1,842,000	49	
6	Dharma Wheel Road	9.0	1,842,000	16	
7	Pedestrian Truth Paths	115.0	276,000	32	
Sub-total		209.0	-	229	-
Total		254.0	-	326	-

Land Development:

Description	Size	Quantity	Unit Rate (US\$)	Amount US\$ million	Remark
Sangha	279ha/Sangha	7	56,497,500	395	Unit Rate = 297ha× 202,500\$/ha

Utilities Construction:

Description	Size	Quantity	Unit Rate (US\$)	Amount US\$ million	Remark
Water intake station	50,000m ³ /day	1	4,900,000	4.9	
Supply pipeline	D800m/m	12km	700	8.4	
Water treatment plant	50,000m ³ /day	1	19,300,000	19.3	
Water distribution reservoir	6,700m ³	1	8,200,000	8.2	
Total		-	-	41	

※Water Intake Pipe Planned between Kanchan River and Water Treatment Plant.

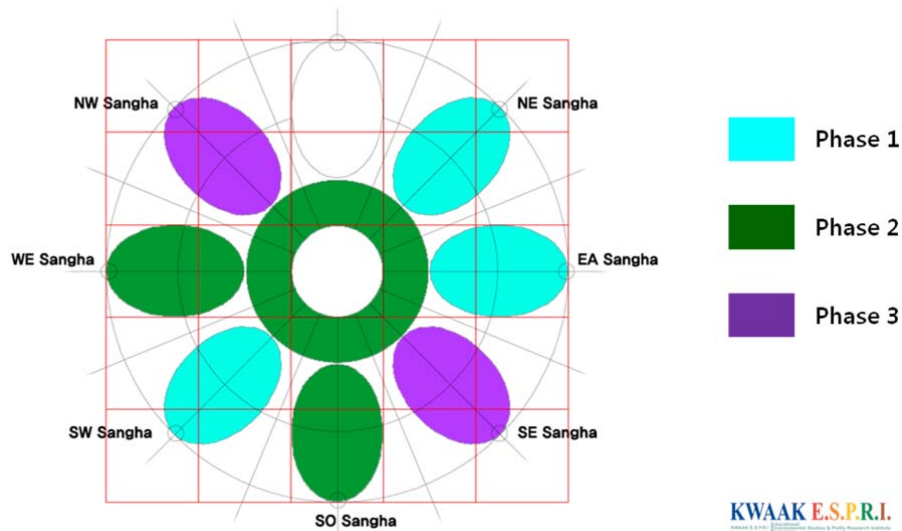
Phasing Development Option

Sangha Development Phasing: Initial priorities such as the perimeter roads and irrigation canals should be implemented **Lumbini World Peace City** by the Government of Nepal and the ODA countries, so that land parcels within the Sangha Zone can be developed as soon as possible by the global Buddhist communities to generate the positive starting investment conditions.

The EA Sangha, SW Sangha, and NE Sangha will be selected as Phase 1 development areas. The SO Sangha, WE Sangha and the Dharma Zone Research Area will be the Phase 2 development areas and the NW Sangha and SE Sangha will be the Phase 3 development.

There will be 15 years from 2015 to the target year 2030 to construct ‘Lumbini World Peace City’. The initial Phase 1 of 7 years will include preparation for a new city construction. Phases 2 and 3 will each take 5 years.

Sangha Zone Project Development by Phases



-	Preparation Phase (2014~2015)	Phase 1 Initiation (2016~2020)	Phase 2 Development (2021~2025)	Phase 3 Completion (2016~2030)
Business contents	<ul style="list-style-type: none"> - Planning and Design - Measurement · Geology · Cultural heritage investigation, Impact assessment, etc. - Step 1, Land compensation 	<ul style="list-style-type: none"> - Step 1, Site preparation work - Step 2, Land compensation 	<ul style="list-style-type: none"> - Step 2, Site preparation work - Step 3, Land compensation - Step 1, Internal development 	<ul style="list-style-type: none"> - Step 3, Site preparation work - Step 2, Internal development

Estimated Cost by Phases for the Sanghas: The total development cost for the main project will be US\$771 million. The estimated cost for the 3 Sanghas and road construction in Phase 1 is US\$327 million. Development for 2 more Sanghas, road expansions and waterworks in Phase 2 is estimated at US\$243 million. Phase 3 development is estimated at US\$192 million to complete road network and the 2 last Sanghas.

Description	Size	Total (million US\$)	Phase 1 (2016~2020)	Phase 2 (2021~2025)	Phase 3 (2026~2030)
Sangha	1,951 ha (7EA)	395	169 (3EA)	113 (2EA)	113 (2EA)
Sub-Total		395	169	113	113
Sangha Middlel Ring Road	18 Km	59	59	-	-
Sangha Perimeter Road	40 Km	73	31	21	21
Outer Sangha Ring Road	27 Km	49	-	-	49
Dharma Wheel Road	9 Km	16	-	16	-
Truth Paths Way	115 Km	32	14	9	9
East-West Connect Road	41 Km	87	44	43	-
North-South Connect Road	4 Km	10	10	-	-
Sub-Total		326	158	89	79
Water intake station, Water treatment plant & Distribution reservoir	1 Unit 1 Unit 12 km	41	-	41	-
Sub-Total		41	-	41	-
Total		762	327	243	192

Cost Estimates by Funding Sources: To pay for the total budget cost of US\$762 million, US\$170 million dollars is expected to come from ODA funds; US\$16 million from private individual donations in the Buddhist communities; US\$181 million may come from private capital; and the balance of US\$395 million will have to come from Nepal government funding.

Title	Total (million US\$)	(%)	Phase 1	Phase 2	Phase 3
Total	762	100.0	327	243	192
ODA Fund	170	22.3	69	80	21
Sponsor Donations	16	2.1	16	-	-
Private	181	23.7	73	50	58
Nepal Government Public Budget	395	51.9	169	113	113

Funding Types

- ***Nepal Central Government:*** Government bonds, foreign loans.
- ***Rupandehi District Local Government:*** Local taxes income, subsidies, grants, and other revenue as transferred funding.
- ***Private Sector:*** Funding from domestic and foreign sponsor groups will play an important role for the Lumbini World Peace City project.
- ***Public-Private Partnership:*** In many countries, this popular method is utilized to develop large-scale infrastructure facilities. The public and private sectors can fulfill their respective roles and move forward effectively with the projects. It is more desirable for private foreign companies with the technical expertise, financing capacity and good corporate governance to lead the projects.

International Financial Sources

- ***Multilateral Assistance***
- ***Bilateral Assistance***
- ***Regional Development Funding***
- ***Large-scale funding plan***

Administration Plan

Special Laws for Lumbini World Peace City Commission: Should include setting the subject area and its management, the construction program, the promotion organization, special accounts, and concessionaire support. Those details were reviewed.

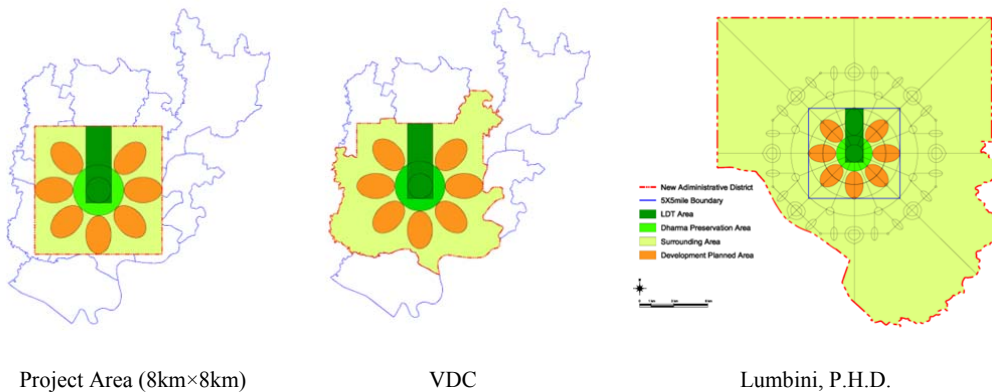
Setting the management program include development permitting, building permit limitations, and limitations on unwanted land transaction activities, basic investigation and notice for area designation.

- ***Setting the Project Areas and Land Management Program***
 - Master Plan Development and building types selected
 - Declaration of ***Lumbini World Peace City*** area by public decree
 - Moratorium on all undesirable land transaction activities
- ***Design and Construction Management***
 - Designating the concessionaires
 - Development Plan and detail design approvals

- Processing the various approvals
 - Land acquisition and construction of infrastructure
- **Promotion organization(Lumbini World Peace City Commission)**
 - **Lumbini World Peace City Commission** formed under the relevant Nepal Ministries and the world Buddhist leaders to decide on all important policies related to the effective promotion of **Lumbini World Peace City**
 - to deal with the transparent management of the land acquisition, design and construction programs, religious promotion, pilgrimage organization, concessionaire supports and financial accounting, all of which answering to the Nepalese Government and the public.
 - **Accounting to the Public**
 - Fund Management and account reporting for all programs expenses
 - Asset Management and reporting for all assets of **Lumbini World Peace City**

Special Administrative District Alternatives: KWAAK E.S.P.R.I. evaluated the alternative district sizes to protect the perpetual sanctity of Lumbini Vishwa Shanti Nagrama and the integrity of the whole Vision.

The definition and management of the national border between Nepal and India just south of **Lumbini World Peace City** should be the highest priority to safeguard the peaceful entry and exits of their citizens, as well as for pilgrims coming to this area from all nations.

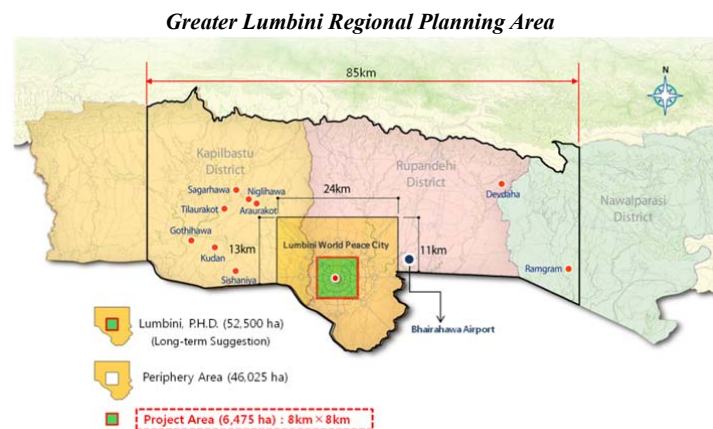


6. Conclusion

To reiterate the recommendation for Immediate Actions

For the Government of Nepal:

- 1) to endorse this Master Vision Plan Report;
- 2) to enact Enabling Legislations for **Lumbini World Peace City** to exist;
- 3) to declare a Moratorium on land transactions & new constructions in **Lumbini World Peace City**;
- 4) to establish **Lumbini World Peace City Commission** to enforce the Moratorium and carry out the development as planned by KWAACK E.S.P.R.I.;
- 5) to procure aid funding from ODA Countries and global Buddhist organizations to finance the development and sustain on-going operations of **Lumbini World Peace City**;
- 6) to commission Book III: The Long Term Regional Plan to the Target Year 3000.



For Lumbini World Peace City Commission:

- 1) to start a just and fair land acquisition process with pre-emptive powers to secure the identified developable land parcels within the Sangha Zone.
- 2) to be accountable for all funds to implement road, irrigation and flood control infrastructure based on the Master Plan guidelines and detailed designs.
- 3) to provide the land development rights for a set term to Buddhist communities in the Sangha Zone and to the global community in the Upasaka/Upasika and the New Rural Village areas for 50 to 99 years.
- 4) to structure the Commission as octagon with the 8 councils with 11 members each (88 members):
 - Infrastructure Council
 - Capacity Building Council
 - Quality of Daily Life Council
 - Job Opportunity Council
 - Organic Agriculture Council
 - Eco-Culture Council
 - Fund Raising Council
 - Transparency Management Council

- 5) After the final presentation in Lumbini on 27th of June, 2014, participants advised that ***Lumbini World Peace City*** Glocal Committee of 88 to be established: local resident leaders and global good-willed experts will be appointed. They suggested that KWAACK E.S.P.R.I. should advise on this organization and also become members, and continue to be involved in the implementation process until the target year 2030. The Glocal Committee of 88 will work together with the ***Lumbini World Peace City Commission***.

This way national level Commission can work with Lumbini local residence and it will become a model case of “**servernment**” in the people, with the people, and to the people.

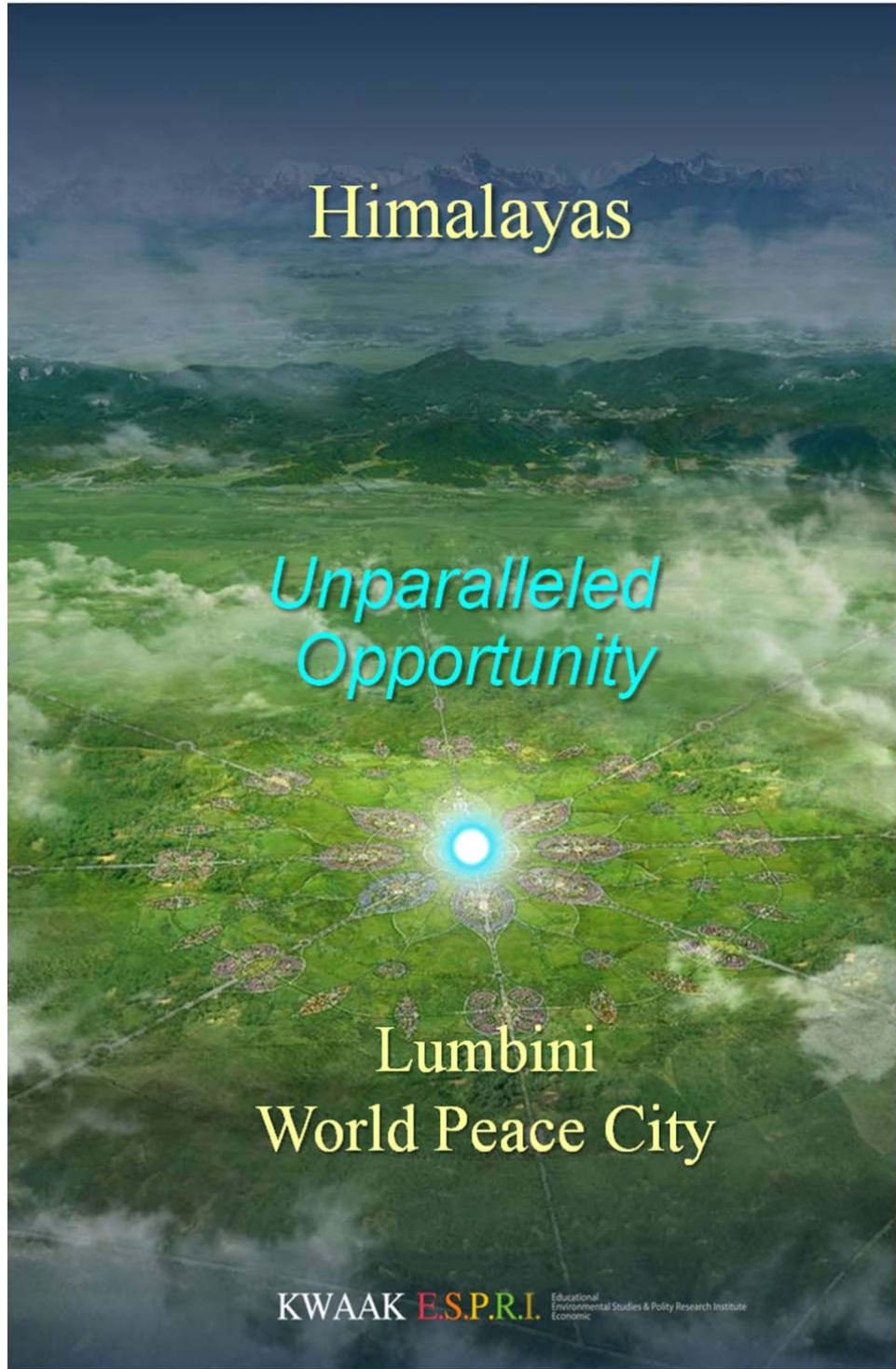
Unparalleled Opportunity for Humanity

The 21st Century confronts an ultimatum from our planet for its future well-being. Lumbini is positioned to become one of the pioneer communities to face this environmental threat and human sufferings. It is time to seize this opportunity to implement ***Lumbini World Peace City*** as the Fountain of World Peace as an epoch-making historical model of spirituality for a new globally sustainable “frontier” of existence.

KWAACK E.S.P.R.I. hopes that this ***Summary Report*** will highlight the unparalleled opportunity that is offered for ***Lumbini World Peace City*** to become a model for peaceful coexistence, for learning together, and, most important, for living together. In the very birthplace of Buddha, a major paradigm shift is about to occur within the spiritual environment, conceived in the form of the “largest Lotus blossom in the world, bringing with it the three treasures of Buddha, Dharma, and Sangha.

Lumbini World Peace City was also orchestrated for humanity coming through the 8 Truth Paths to participate in the development of Upasaka/Upasika communities and their progress in a sustainable manner, integrating both rural and urban lifestyles, and facilitating a new “modus vivendi” of peace and harmony for all mankind.

Every peace-loving people on Planet Earth is invited to join hands to participate and witness the implementation of ***Lumbini World Peace City***; Nepali’s Vishwa Shanti Nagrama and Global Villagers’ World Peace City.



Let us build this epoch-making historical
Lumbini World Peace City together!