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Development Control for Cultural Heritage Site and its Surrounding

A Case Study on the Lumbini Master Plan by Kenzo TANGE

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1.0 INTRODUCTION

This paper reviews the result of master planning for preservation and development of cultural heritage in Lumbini, Nepal. A master plan was prepared during 1970s by Kenzo Tange and the site has been under construction for more than 30 years. Part of the site including the Ashoka Pillar built in 623 B.C. indicating the birthplace of the Buddha was inscribed on the World Heritage List in 1997. In this paper, the original master plan and its planning process are clarified based on document research and several interviews to planners involved to the project in 1970s. Existing situation of Lumbini was surveyed on December 29th 2010 to January 6th 2011 on site.

2.0 KENZO TANGE' S LUMBINI MASTER PLAN

2.1 The Background of Lumbini Development Project

The former UN Secretary General, U Thant visited Lumbini in 1967 and proposed that it should be developed in order. Following this suggestion, the government of Nepal and the United Nations started several research projects for the development of Lumbini.

After a few reports by the UN, in 1969, "Report for the Lumbini Development" (Here as Allchin Report) by F. R. Allchin from Cambridge University and K. Matsushita from Tange & URTEC was submitted to the UN. Allchin Report was the first report that described a physical plan with 1x3 miles project area. The Lumbini Garden (changed its name into Sacred Garden later) was planned around the Ashoka Pillar on the south of the area the Pilgrim Village was on the north. At the same time, Monastic Enclave was proposed to connect two major components. The framework in this report had remained the same in the final master plan.

In 1970, an international committee for the development of Lumbini was organized in United Nations and Japanese architect Kenzo Tange was commissioned to design a master plan for the development of Lumbini.

Table 1: Chronological table of Lumbini Master Plan

Year	Report / Event
1967	United Nations, secretary general, U Thant visited Lumbini
1968	Dr. S. Kobe, Mr. E. Alkjaer and Mr. S. Brown, Report of the UN Mission for the development of Lumbini
1969	Mr. J. C. Pollaco, Report of an UNESCO Mission
1969	The Resident Representative of the UN in Kathmandu, Mr. Y. J.Joury, A comprehensive report on the Lumbini Development,
1969	Allchin & Matsushita, Report for the Lumbini Development Project

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1970 International Committee for the Lumbini Development established in the UN
 1970 United Nations, Committee for the Development of Lumbini, Lumbini - The Birthplace of Buddha, New York,
 1970 Okada, F. E., Preliminary Report on Regional Development Areas in Nepal, National Planning Commission
 1972 Okada, F. E., The Lumbini Garden Area, Rupandehi District, Nepal: a Socioeconomic Survey, Kathmandu
 1972 Kenzo Tange & Urtec, Final Outline Design for Lumbini
 1976 Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Stage I Report
 1977 Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Stage II Report
 1978 Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Final Report
 1979 Kenzo Tange & Urtec, Architectural Design for the Lumbini Garden Phase III, Stage I, Technical Report
 1981 Kenzo Tange & Urtec, Architectural Design for the Lumbini Garden Phase III, Stage II, Technical Report
 1981 Kenzo Tange & Urtec, Master Design for the Lumbini Garden (draft)
 1985 Lumbini Development Trust was formed by the Lumbini Development Trust Act

2.2 Concept of the Lumbini Master Plan

Final Outline Design for Lumbini by Kenzo Tange & Urtec in 1972 is one of the most important milestones of the master planning process. The report proposed a 3X3 mile area for the Lumbini Project Area and recommended that the center 1X3 mile strip should be divided into three, 1 square mile areas. These areas are to be developed as Sacred Garden, the Monastic Zone and the New Lumbini Village, running from south to north respectively. (Figure 1)

The additional 1X3 mile strips on both sides of the central strip are to be restricted areas with the option for future integration into the project. The report also requested the government of Nepal to adopt zoning regulation for an additional 16 square mile area to act as a Buffer Zone that will assure the preservation of the agricultural environment. In 1978, Master Design for the Development of Lumbini Phase II, Final Report was completed. The final Master Plan kept the fundamental concept of the Final outline design in 1972. The whole site consists of 4 major elements: Lumbini Center, Cultural Center, Monastic Enclave and Sacred Garden. (Figure 2)

The Lumbini Center in the north section functions as the entrance complex to Sacred Garden, which provides direct access from the Bhairawa-Taulihawa highway running east-west. It consists of Administration Center, Tourist Information Center Medical Center, tourist and pilgrim facilities in three types of accommodation, and common services such as restaurants, shops, banks and other public services. It is also the point of departure for pilgrimage to Sacred Garden. Sacred Garden located on the south symbolizes the birthplace of the Lord Buddha. The form of a circle enclosing squares embodies the mystic symbol of the universe in the Buddhism with purity and simplicity. The garden is surrounded by the pond and a circular levee link to protect against the inundation.

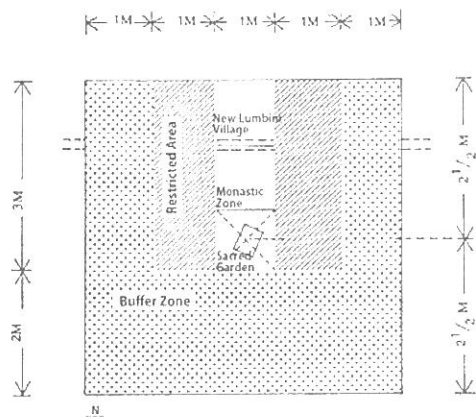


Figure 1: Lumbini Project Area

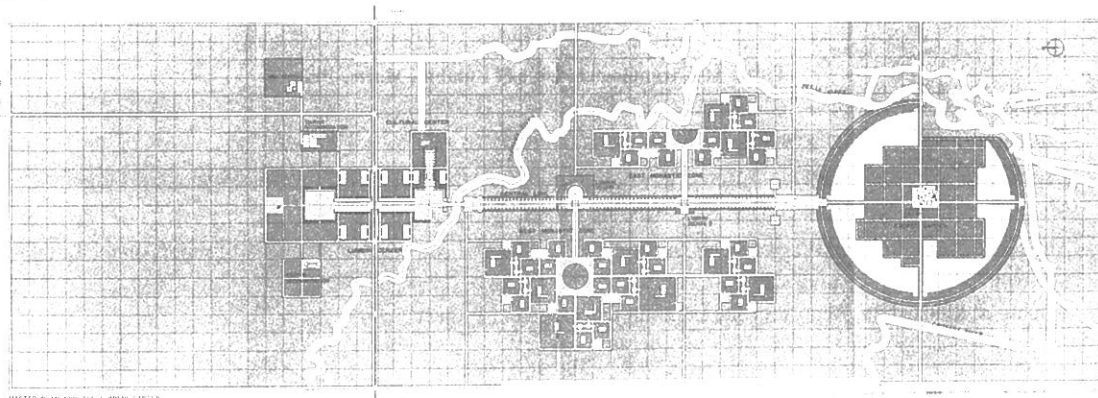


Figure 2: Master Plan for the Lumbini Garden

Monastic Enclave is located between the two zones surrounded by forest. It is composed of square plots, which are allocated to different countries for the construction of monasteries.

The Central Link is the major axis of the plan with significance to ensure the vista of the Ashoka pillar in the center of Sacred Garden and the view of the Himalayas from Sacred Garden. It also provides means of mobility by a canal and a sidewalk along it, leading all visitors from the Lumbini Center to the Ashoka Pillar.

According to interviews with planners, visitor's experience that starts from the Lumbini Center thorough Monastic Enclave to Sacred Garden was planned to be a journey from mundane things to sacredness, and it was one of important concepts and design principles of the plan.

2.3 Phasing strategy of the Lumbini Master Plan

The Final Outline Design in 1972 proposed 3 stages for the implementation of the Master Plan (Figure 3), which were specified in the Final Report in 1978. According to the Final Report, first Stage functions as the immediate development action up to 1980, with high priority given to the Lumbini Center, Central Link, Sacred Garden, Monastic Area and relevant infrastructures. (Table 2) In 1985, Lumbini Development Trust (LDT) was formed to promote implementation of the project as an agency of the national government of Nepal.

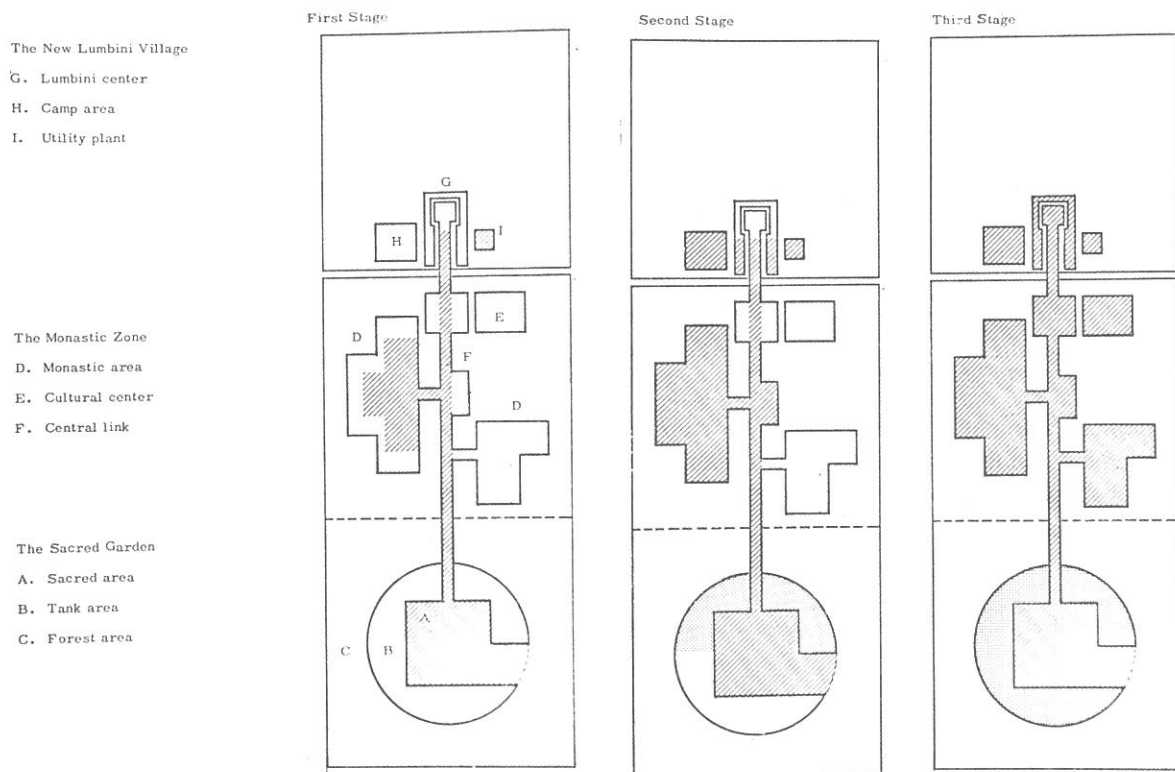


Figure 3: Implementation Stages of Lumbini

Table 2: Specified Implementation Phases of Lumbini Master Plan (1978)

	1st Phase (Up to 1980)	2nd Phase (1980-85)	3rd Phase (After 1985)
Lumbini Center	Administration Center: 50% Tourist Accommodation: 50% Pilgrim Accommodation: 65% Medical Center: 35% High School: 100% Retail and Service Facilities: 35%	Development carried over-from and complementary to the 1 st Phase	Extension in the Lumbini Center
Cultural Center	Museum: 35% Auditorium: 100%	Development carried over-from and complementary to the 1 st Phase	Extension in the Cultural Center
Central Link	Central Canal: 100% Pedestrian Space: 65% Service Facilities: 50%	Development carried over-from and complementary to the 1 st Phase	
Sacred	Circular Shaped Levee Link: 100%	Development carried over-from and	

Garden	Major Pedestrian Path: 100% Protection Banking of Sacred Area: 100%	complementary to the 1 st Phase / The development of Sacred Garden will depend on the progress of the archaeological excavation works	
Monastic Area	West Monastic Plaza: 100% East Monastic Plaza: 100% Main Access with Branch Canal: 100% West Monastic Lots: 30% East Monastic Lots: 30%	Development carried over-from and complementary to the 1 st Phase / 80% of the Monastic Areas to be undertaken as an independent development	
Infrastructures	Bhairahawa-Lumbini Road: 100% Peripheral Road: 100% Major Service Roads: 100% Utilities	Development carried over-from and complementary to the 1 st Phase	Planting in the Entire Site

2.4 Resettlement of Communities inside the Lumbini Master Plan Area

Before the start of the project, there were 136 ha of double-cropping area and more than a thousand inhabitants living in 4 villages within the master plan Area. The plan required all the inhabitants to be resettled to ensure its implementation. “It has been decided that the inhabitants of these villages will be

resettled and paid compensation, in order to make way for the Lumbini Development.” [5]

Land acquisition within the area for the Lumbini development started in the early 1980s. The compensation rate by the government, however, was far below the local market price, which made many of the relocating families unable to fully replace their original landholdings.



Figure 4: Lumbini Garden from Air (1969)

Figure 4 shows Lumbini Garden Area in 1969 and figure 5 shows the communities and surrounding landscape within the Master Plan Area before the resettlement. No official provision was made for relocating families from the master plan area. After

resettlement, the majority have remained within a 20 km radius of their original homes. Many moved to settlements on the periphery of the master plan area such as Mahilabar, Padariya and Tenuhawa. [6]

Figure 6 shows the resettled communities due to the implementation of Lumbini Master Plan and existing communities around the Master Plan Area in 2010.

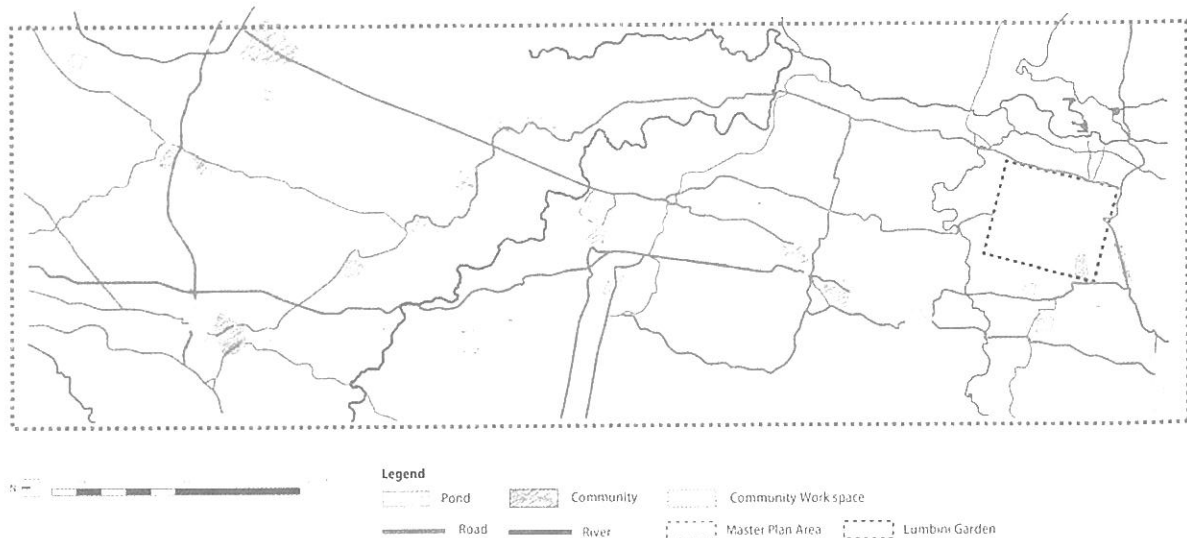


Figure 5: Communities and Surrounding Landscape of Lumbini Master Plan Area before Resettlement

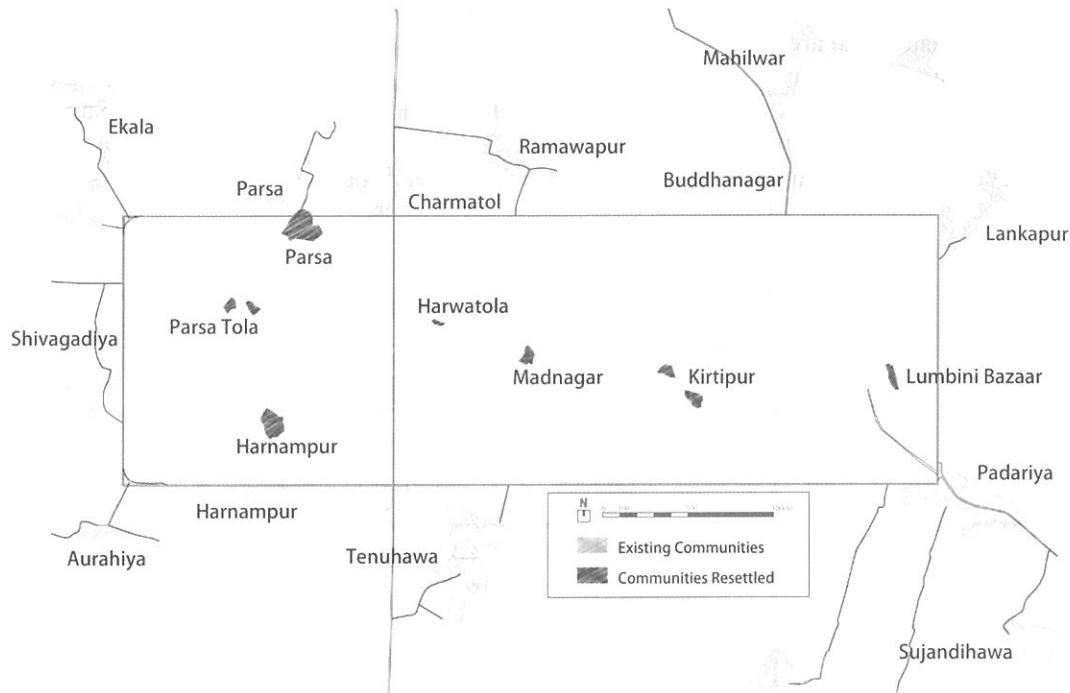


Figure 6: Communities Resettled in 1980s and the Existing Communities in 2010

3.0 EXISTING SITUATION OF THE LUMBINI MASTER PLAN

3.1 Existing Situation of Master Plan Area

Although the Lumbini Master Plan has been under construction for more than 30 years, the progress of the implementation has not been satisfactory. By the time of the author’s visit to the site in the end of 2010, only Sacred Garden and part of Monastic Enclave had been completed (Figure 7). No construction work on the tourism and commercial facilities of Lumbini Center was started and Central Link was still under construction (Figure 8-9).



Figure 7: Sacred Garden



Figure 8: Lumbini Center



Figure 9: Central Link

Implementation of infrastructure works such as water supply, sewer system, electric power supply and telecommunication were also delayed and temporary facilities were installed individually inside the master plan area.

The delay of the construction in Lumbini Center and Central Link as the main access to Sacred Garden also resulted a distinct traffic flow from the original Master Plan. At present, the east gate of Sacred Garden is used as the temporary main access to the area.

3.2 Existing Situation of Master Plan Area

The official data from Lumbini Development Trust (here as LDT) shows that the number of tourists visiting Lumbini has been increasing significantly during the last 5 years (Table 3) and private sector development has been carried out rapidly along the ring road outside the master plan area. The

development is particular concentrated on the east gate area of Sacred Garden as related to pedestrian flow inside of the master plan area. This east gate community was developed about 400m long along a street to an old village, Mahilwar. The community has also parking for tourists in front of the gate and it has extended these days to accommodate more cars including tour buses. (Figure 10-12) Some buildings constructed these days near the east gate have 5 stories or more. Though it is not a serious problem at present, high-rise buildings that can be obstacles in important view around the Ashoka Pillar will emerge in near future.

Table 3: Tourist Arrival in Lumbini during 2005-2010

Year	2005	2006	2007	2008	2009	2010
Number	39,784	49,595	71,053	82,075	82,445	99,508

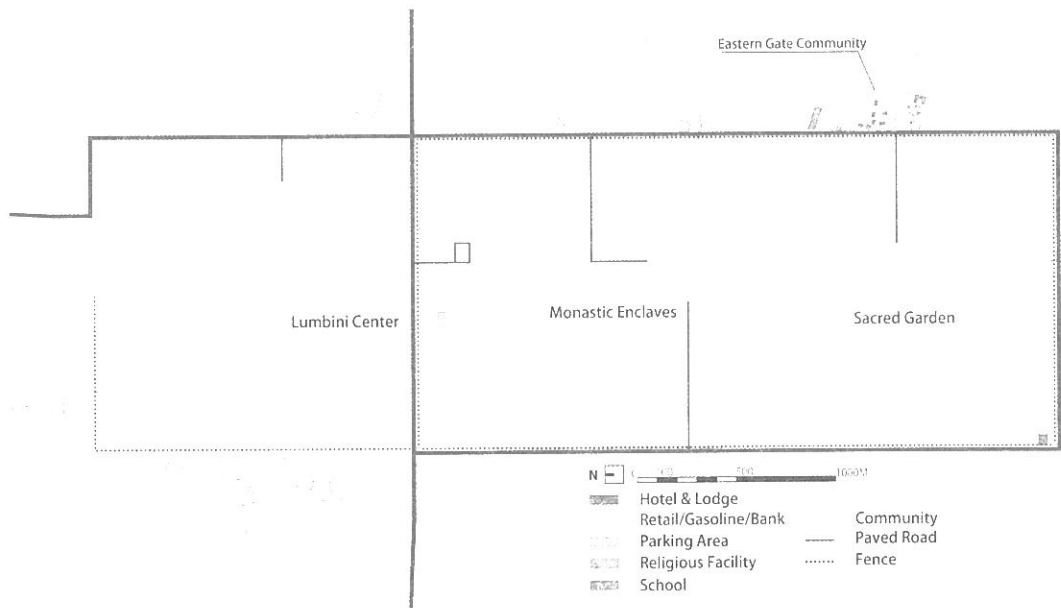


Figure 10: Existing Land Use of Surrounding Area of the Lumbini Master Plan



Figure 11: Parking Area outside the East Gate



Figure 12: East Gate community

3.3 Differences between the Master Plan and the Existing Situation

Major difference between the plan and the existing situation is the location of parking facilities and tourist facilities for the site. Parking and tourist facilities including retail shops and hotels are officially planned at Lumbini Center, 1.5 mile (2,400m) north of Sacred Garden. However, most pilgrims and tourists use private parking lots and shops in east gate community that are located 0.5 mile (800m) east of Sacred Garden, which is just on the periphery of the master plan area. It makes complete change of pedestrian traffic flow and land use of the master plan area.

There are several reasons for this change as described below.

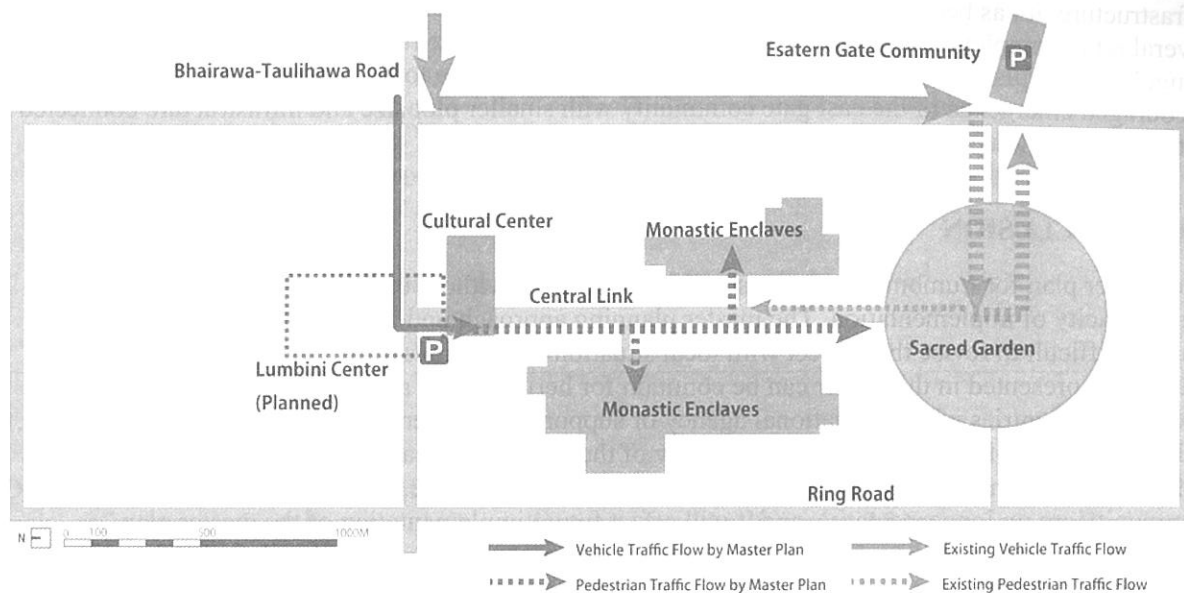


Figure 13: Traffic Flow in Lumbini Master Plan Area

3.4 Delays and Project Scale

The first reason is delay of implementation. As shown in the Figure 3 and the Table 2, the plan was estimated to complete Central Link and most of important facilities in Lumbini Center in Phase 1, which means before 1985. In 2011, Central Link is still under construction and only one parking lot is completed. Sacred Garden was constructed prior to these infrastructures and began to attract pilgrims and tourists, which resulted prosperity of the east gate community. Though Monastic Enclave has been directly developed by foreign Buddhist group with their sufficient budget, they have developed service roads and infrastructures independently from the ring road. Therefore it does not improve common infrastructures such as Central Link and Lumbini Center.

Certainly Political change in Nepal in last decade should be one reason for the delay. However, it was a scale of development that causes insufficiency of budget in the government and project delay. Basically the government of Nepal and LDT have followed phasing strategy of the master plan, however the first phase was clearly too large and it was not completed after 30 years since it started. Project scale also affect to pedestrian traffic flow as mentioned above. The distance from the east gate to Sacred Garden was 1 mile shorter than that from north. Considering severe climate in the summer, it was natural for visitors to choose the closer east gate.

3.5 Lack of land use control in surrounding area

The second reason is lack of land use control in surrounding area of the master plan area. Allchin report mentioned the importance of surrounding villages and agricultural areas and the restricted area and the buffer zone were proposed and necessity of development control was mentioned in Final Outline Design for Lumbini in 1972. However, there has been no additional plan for these zones and no development control was enforced. Only the master plan area was acquired by Government of Nepal and designated as special administrative area under LDT. The surrounding area was left as a private land under ordinary administrative system of Nepal. It is not clear why development control was not enforced in the restricted zone and the buff zone. The difference of administrative area also affect to inefficient development of the area.

3.6 Difficulties for local business

There is no building for tourist facilities by local capital in the master plan area at present and only two hotels by foreign capital in northern part of Lumbini Center. Though it is not clearly prohibited for

local investors to start any development in the master plan, considering a size of lot and lack of infrastructure, it has been very difficult for local capital to start their business in the area. Actually several retail complexes were planned to accommodate small-scale retails in Lumbini Center by Tange's master plan, however these buildings are not yet built due to the project delay. That also encouraged emergence of the east gate community with smaller plot size and infrastructure connected to the existing village.

4.0 CONCLUSION

The master plan for Lumbini was large-scale and ambitious without careful feasibility study based on local capacity of implementation. The master planning approach under international commitment made it difficult to revise the project with local situation and realities.

And issues presented in this paper can be common for heritage sites and its surrounding area in developing countries with international agency or support from other countries still in today. In Lumbini, lack of feasibility study and review of the master plan cause the significant difference of traffic flow and land use from the plan. Considering a period of time, the temporary gate and the community are no longer tentative and it will affect future implementation of the master plan.

On the other hand, regarding review and change of the master plan, some officials in LDT mentioned that the importance of the master plan by Tange. They have experienced several political changes in Nepal that caused changes of their leader. It was very difficult for them to keep continuity of the project without the unchangeable plan by a famous foreign architect. More than 30 years, the master plan has been followed physically as the official plan and most people in Lumbini know the master plan itself. However there are few people who understand the concept of the plan that was still not achieved in today.

The number of pilgrims and tourists has been increased rapidly and several investment projects by international agencies and Buddhist countries are going to start in next 5 years. Understanding the history and difficulties of development control in Lumbini, feasible and comprehensive approach including the surrounding area and villages should be necessary to preserve the world heritage site.

5.0 REFERENCES

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5. Kenzo Tange & Urtec, "Master Design for the Development of Lumbini Phase II, Final Report", 1978, p4
6. Kate Molesworth & Ulrike Muller-Boker, "The Local Impact of Under-Realization of Lumbini", Contributions to Nepalese Studies, Vol.32, No.2, 2005, pp194-195.

Figure 1: Kenzo Tange & Urtec, "Final Outline Design for Lumbini", 1972, p8, text added by the author.

Figure 2: United Nations, "Lumbini - The Birthplace of Buddha", Committee for the Development of Lumbini, New York, 1979.

Figure 3: Kenzo Tange & Urtec, Final Outline Design for Lumbini, 1972, pp25-26

Figure 4: UN Archives S-0200-0005-02, Development of Lumbini in Nepal - photographs, maps.

Figure 5: Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Final Report, 1978, p10, Colorized by the author.

Figure 6: Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Final Report, 1978, p10, exiting community data referred to "Google Earth aerial photo on December 5th 2009".

Figure 7-9: Photographs taken by the author.

Figure 10: Data collected by the field survey carried out by the author.

Figure 11-12: Photographs taken by the author.

Table 1: Prepared by the author

Table 2: Kenzo Tange & Urtec, Master Design for the Development of Lumbini Phase II, Final Report, 1978, pp73-75.