URBAN CONSERVATION STUDIO

Submitted to
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Conservation of
Nagadesh, Madhyapur Thimi Municipality, Bhaktapur

Submitted by

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- Seminar Associates
Nepal has many traditional towns and rich culture. The diversity in culture, castes and creeds make Nepal rich in culture and cultural heritages. With the modernization and change in people’s life style, there is a threat to the culture and cultural heritage. So, the culture and cultural heritages needs to be conserved.

Introduction of Ancient Monuments Preservation Act in 2013 B.S. (1956 AD) marked the provision of modern concept of heritage conservation in Nepal. UNESCO’s mission to restore the Hanuman Dhoka Durbar in the 1970s was the first major international assistance for heritage conservation in Nepal. The enlisting of seven different sites from Kathmandu valley including 3 Durbar Squares, Pashupatinath, Bouddha, Changu Narayan and Swoyambhu in the UNESCO’s World Heritage Sites brought Nepal to international attention in heritage conservation arena. Along with nature conservation and biodiversity conservation, cultural heritage conservation has been of interest to many national and international agencies. It is also linked with tourism and development besides the primary intention of preserving cultural and historic heritage. However, much needs to be done with regards to promulgation of effective policies and institutional frameworks to address various challenges.

The surviving examples of cultural heritage in Nepal date back to various periods in history and they have lived significantly long period of time primarily because of the maintenance and repairs practices that were put in place by their respective sponsors. Many historic inscriptions record such maintenance practices and specific repair works carried out to these monuments (Banerjee, 1970). Often, the ruling royal family or influential ministers would occasionally grant such commissions of restoration and maintenance. Institutionally, there were guthis associated with important communal buildings to sustain their regular functions, maintenance and renovations. Generally, the buildings of important cultural and communal values would be sponsored by a powerful (King or a social leader) and rich donor for either personal dignity or attaining ‘dharma’, and therefore those donors would ensure some provisions for the upkeep and repairs to ensure the longevity of such monuments.

Other institutions also existed that were meant to take care of important monuments, i.e.an institution called Chhen-Bhadel seemed to be in existence from Malla period and it “had been carrying out repairs to ancient and public edifices in Nepal as its specific duty. Since pre 1950s Nepal was relatively isolated and the urban and rural areas were developing on their own paces, the need of ‘conservation’ was not critical.

As Nepal opened herself to the World in the 1950s, interaction and exchange of people, goods and ideas made the pace of change faster than ever. Initially there were some Nirman samitis
(Construction Committees) and the Public Works Department, which used to be in charge of repairs to ancient structures. Various public agencies and government departments had undertaken some beautification and repair works of various monuments on the occasions of coronations of King Mahendra and King Birendra. At times, the repair and maintenance of important cultural heritage had been carried out in part and parcel by various community groups.

Even after the establishment of the Department of Archaeology (DoA) in 1952-53, these various agencies were still undertaking such works. In fact, the first major repair work undertaken by DoA was that on Kasthamandapa. The work on Kasthamandapa was a joint undertaking between the DoA and the Guthi Sansthan, in which actually the Guthi Sansthan provided entire financial support for the repair works.

Following the establishment of DoA, the Ancient Monuments Preservation Act was promulgated in 1956 to maintain peace and order by preserving the ancient monument and by controlling the trade in archaeological objects as well as the excavation of the place of ancient monuments and by acquiring and preserving ancient monument and archaeological, historical or artistic objects. In the 1960's various missions of experts in town planning and the restoration of cultural property were fielded by Unesco and the United Nations Technical Assistance Programme, to advise on the planning of conservation measures” (UNESCO/UNDP, 1981). Further in 1970s, the financial and other support from other countries and international agencies continued resulting in expansion of the conservation programs and frameworks.

First promulgated in 1956 and revised several times afterwards, The Ancient Monuments Preservation Act is the main legal document on heritage conservation in Nepal. It is no surprise that this law puts heavy emphasis on “ancient” and “archaeological”. As the old saying refers the Kathmandu valley as the “Nepal”, this act truly limits itself to the heritage in Kathmandu valley. Therefore, the first and foremost challenge of heritage policy in Nepal is to expand the legal provision to other regions. For expanding the conservation legislations to other regions, the policy needs a framework on administrative coordination and law enforcement in sites all over the country.

First trend of conservation from ancient history to early modern history was that the conservation effort was almost entirely sponsored by King (or for that matter the government). The second trend that is seen in recent decades (typically after 1970s) is a major involvement of national and international agencies including UNESCO and other donor agencies. In between these two main trends, there is also a third trend which exists everywhere but rarely noted in discussions; the initiatives of local private and public agencies; for example – repairs and restoration works sponsored by locally affluent and rich persons or families and the same done by collaborative efforts within communities. Associated
with this third trend are various cultural entities and events that support such conservation efforts, i.e. youth groups in a community organize or take advantage of cultural events to raise funds to support any repair works in local temples or other communal buildings, the guthis and local administration support community efforts to maintain any structures of practices of heritage importance. However, the national policy for conservation lacks a clear stand on such local initiatives. Not specifically falling under these three trends, yet a major constitution of a heritage and heritage practice are the people who create, care for and carry forward the legacies of these heritages.

As indicated by various policy intentions, the visible stakeholders in heritage conservation include DoA, NTB, Municipal governments/departments, Conservation Area Management Authority, Businesses groups, Academic Institutions, Donor Agencies, International inter-governmental agencies, National NGOs, International NGOs and occasionally other agencies.

Conservation Trend in Nepal

Lichhavi Period

The Pashupati stone slab inscription describes the installation of a linga by Jayavarman in 491AD, during the reign of King Mahdeva. Similarly, the quadrangle of the temple was raised by a lady called Abhiri and this is mentioned in an inscription of 540 AD. The Patan Sundhara stone slab inscription mentions the repair work done to a temple in Madingram. Several relevant agencies were created during Lichhavi period, as mentioned in the inscription of 604 AD, for example a body for the maintenance of lighting, another in charge of the water supply and a troupe of wrestlers. The water mechanic called Paniyakaramantika used to look after the water supply system.

Many kind of Guthis or trusts were operating in this period. One was known as the Archa Guthi for the restoration and repair of images. An inscription of 398 AD stated that the Pratihara Dhruba Sangha Barta the official of the palace had established a truct under the control of his family with an annual income of four hundred Manika Kuta, a type of revenue in kind, for performing daily worship in the five temples.

Malla Period

The linga of the Pashupati temple, which was broken into three pieces during invasion by the Muslim ruler Sultan Shamsudhhin Illyas of Bengal, was restored to its original glory in 1360 AD by Mahamantri Jayasimhamaramavardana as mentioned in the Kathmandu Itambahal stone slab inscription of 1382. King Pratapmalla gifted a golden finial in 1654 AD. He is also credited with the construction of the Aryaghat, the cremation ground on the eastern side of the Pashupati
Complex. King Bhupalendra Malla and queen Riddhilaxmi together restored the Pashupati temple after the woodworks was damaged by termites. The restoration work is said to have taken seven months for completion.

Conservation Agency

Public institution known as Chhen-Bhadel was established, and it carried out all conservation works. This office was attached to the palace, and it continued to work until the later Shah period.

Rana Period

Many conservation works were done in this period as the whole of Nepal and particularly the valley of Kathmandu was badly affected by a massive earthquake in 1934. The only drawback is the rash conversion of the multi-tiered temple to the domical roofed one. In this period, the Mugal architecture was introduced into Nepal resulting into the appearance of the domical roofs which however was regretted by then the Prime Minister Jung Bahadur Rana. After his visit to Europe, there was the introduction of foreign architectural elements in Nepal and some palaces were constructed imitating the western style.

Conservation Works

Prime Minister Ranoddip put the white marble slabs in the Pasupati temple towards the end of the nineteenth century. Another Prime Minister Chandra Shamsher Jung Bahadur Rana, repaired the gilded roof of the Pasupati temple. The woodwork was also painted during his reign.

The department of archeology was established in 1952 but received the necessary legal powers in 1957 only after the promulgation of the Ancient Preservation Act. In 1960, Mr. A Ghosh who was a Director General of Archeology in India, made a study of different aspects of conservation scenario in Nepal and submitted a report to Government of Nepal.

In 1970, Dr. N.R. Banerjee, who was an archeological advisor under the Indian Co-operation Mission which had its office in Kathmandu, submitted a report on “Preservation of Monuments in Nepal”. He also recommended stopping the flow of traffic in the three Palace Squares of the valley.

In 1971, the Pujari Math restoration project commenced in Bhaktapur with the financial and technical support of the Federal Republic Germany. This was conceived as an unusual present for the then Crown Prince on the occasion of his marriage. It was to inspire the Bhaktapur Development Project, which ran from 1974-86, with the support of German Technical Co-operation (GTZ).
In 1979, there was an immediate call for UNESCO support for stabilization works at Swayambhu, following a major landslip in 1978. Finance was provided from the World Heritage Fund and work was carried out under the direction of John Sandy.

The next significant project implemented with international support was the restoration of the Bramayani Temple, Panauti, from 1981-2, carried out by the French Centre National de la Recherche Scientifique and His Majesty’s Government. This was a precursor to the later French supported Panauti project from 1991, which was centered on the restoration of the Indreshwor Mahadev Temple.

In 1983 the Austrian Government, inspired by Eduard Sekler’s Proposal for the urbanistic conservation of Patan (Lalitpur) Durbar Square as a Monument Zone (1980), made its first financial contribution towards the restoration of the Keshav Narayan Chowk of Patan Palace. This proved to be a long-drawn-out project and was only finished in 1997, when the courtyard reopened as the Patan Museum.

In 1987 the Cyasalin Mandap in Bhaktapur Durbar Square, which had collapsed after the 1934 earthquake and had not been rebuilt, was reconstructed in replica at the expense of the Federal Republic Germany to mark the end of the Bhaktapur Project.

During the first ten years of the Campaign aid directly channelled through UNESCO was relatively modest. However, the partial collapse of the Biswanath Temple in Patan Durbar Square during the 1988 monsoon prompted a direct contribution from the World Heritage Fund towards its repair. It was apparent that, although significant projects supported by bilateral aid were underway, the Campaign needed to be reinvigorated if it was to arrest the deterioration of the major monuments, never mind to achieve the broader vision of the 1977 *Master Plan*. Although the revised *Updated Action Plan* was published in 1988, this had little initial impact upon the direction of the Campaign. It was perhaps more significant that on April 9th 1990 the Kathmandu Valley Preservation Trust was incorporated to develop, promote, co-ordinate, and assist activities and strategies for the wise use and conservation of the cultural heritage of the Kathmandu Valley of Nepal and surrounding areas for the benefit of future generations throughout the world.

This promised private finance from the United States as well as being a focus for fund-raising within Nepal. It consequently provided a model for future conservation efforts, which would increasingly depend upon self-help rather than subsidy from foreign governments. Initial projects included the thorough restoration of the Uma Maheshwor Temple, Patan, in 1992 and the more conservative repair of the Radha Krishna Temple in the same city. Since that time, the Trust has carried out fourteen projects at a cost of US$ 336,000, including the Patukva Agamchhe, Patan, which received additional support from its *guthiyars*, the World Heritage Fund and the British Ambassador’s discretionary fund. The Trust is about to undertake a major project in Kathmandu
Durbar Square, which will include the conservation of the group of temples adjacent to the image of Hanuman at the palace gate. The development of the Trust into a major conservation body has proved to be extremely important, particularly given the ineffectiveness of the Guthi Sansthan in carrying out its responsibility to maintain the religious monuments.

The Nippon Institute of Technology, in association with the Department of Archaeology, commenced the restoration of the I Baha Bahi, a Buddhist monastery in Patan, in 1990. The change in direction was encouraged by the discussion of conservation techniques at the 17th Session of the World Heritage Bureau, June 1993, which had considered a critical report by the ICOMOS International Wood Committee.

Following the Joint UNESCO/ICOMOS Review Mission of November 1993, the Department of Archaeology issued new guidelines on the conservation of monuments, which emphasized the importance of repair in situ and banned the use of cement for the repair of monuments within the World Heritage Site. This represented a considerable change in attitude, bringing work within the Site more in line with international conservation standards. Although the current approach is not invariably perfect, the revised techniques widely used since 1994, reinforced by UNESCO-sponsored technical input, have greatly enhanced the standard of conservation work carried out by both local and international agencies. It is interesting to study the approach of the Pashupati Development Trust. The 1998 UNESCO-ICOMOS-His Majesty’s Government Joint Mission criticized the demolition and replica reconstruction of the Charumati Vihar, Chabahil, a medieval Buddhist monastery of early date and outstanding importance. The UNESCO Mission for the Evaluation of the International Safeguarding Campaign of November-December 2000 was therefore impressed by the enhanced conservation standards now utilized by the Trust, as demonstrated by the skillful in-situ repair of the dharamsala of the Pancha Deval Temple at the heart of the Monument Zone.

**Conservation introduction**

Conservation is the action taken to prevent decay and manage change dynamically. It embraces all acts that prolong the life of cultural and natural heritage, the object being to present to those who use and look at historic buildings with wonder the artistic and human messages that such buildings possess. The minimum effective action is always the best; if possible, the action should be reversible and not prejudice possible future interventions. The basis of historic building conservation is established by legislation through listing and scheduling buildings and ruins, through regular inspections and documentation, and through town planning and conservative action.

The scope of conservation of the built environment, which consists mainly of historic buildings, ranges from town planning to the preservation or consolidation of a crumbling artefact.
Conservation of cultural heritage involves protection and restoration using any methods that prove effective in keeping that property in as close to its original condition as possible for as long as possible. Conservation of cultural heritage is often associated with art collections and museums and involves collection care and management through tracking, examination, documentation, exhibition, storage, preventative conservation, and restoration.

The scope has widened from art conservation, involving protection and care of artwork and architecture, to conservation of cultural heritage, also including protection and care of a broad set of other cultural and historical works.

Conservation of cultural heritage applies simple ethical guidelines:

- Minimal intervention;
- Appropriate materials and reversible methods;
- Full documentation of all work undertaken.

Often there are compromises between preserving appearance, maintaining original design and material properties, and ability to reverse changes. Reversibility is now emphasized so as to reduce problems with future treatment, investigation, and use.

Conservation must preserve and if possible enhance the messages and values of cultural property. These values help systematically to set overall priorities in deciding proposed interventions, as well as to establish the extent and nature of the individual treatment.

The ‘values’ in conservation are: -

1. Emotional values: (a) wonder; (b) identity; (c) continuity; (d) spiritual and symbolic.
2. Cultural values: (a) documentary; (b) historic; (c) archaeological, age and scarcity; (d) Aesthetic and symbolic; (e) architectural; (f) townscape, landscape and ecological; (g) Technological and scientific.
3. Use values: (a) functional; (b) economic; (c) social; (d) educational; (e) political and ethnic.

**Degree of Intervention**

The minimum degree of intervention necessary and the techniques used depend upon the conditions of climate to which cultural property is likely to be subjected. Atmospheric pollution and traffic vibration must be considered, and earthquake and flood hazards should be assessed.

Interventions practically always involve some loss of a ‘value’ in cultural property, but are justified in order to preserve the objects for the future. Conservation involves making interventions at various scales and levels of intensity which are determined by the physical
condition, causes of deterioration and anticipated future environment of the cultural property under treatment.

There are seven degrees of interventions in conservation and they are:

(1) prevention of deterioration; (2) preservation of the existing state; (3) consolidation of the fabric; (4) restoration; (5) rehabilitation; (6) reproduction; (7) reconstruction. These degrees of intervention are dealt with below.

*Prevention of deterioration (or indirect conservation)*

Prevention entails protecting cultural property by controlling its environment, thus preventing agents of decay and damage from becoming active. Prevention includes control of internal humidity, temperature and light, as well as measures to prevent fire, arson, theft and vandalism, and to provide for cleaning and good overall housekeeping. Regular inspections of cultural property are the basis of prevention of deterioration. Maintenance, cleaning schedules, good housekeeping and proper management also aid prevention. Such inspections are the first step in preventive maintenance and repair.

*Preservation*

Preservation deals directly with cultural property. Its object is to keep it in its existing state. Repairs must be carried out when necessary to prevent further decay. Damage and destruction caused by water in all its forms, by chemical agents and by all types of pests and micro-organisms must be stopped in order to preserve the structure.

*Consolidation*

Consolidation is the physical addition or application of adhesive or supportive materials into the actual fabric of cultural property, in order to ensure its continued durability or structural integrity. With historic buildings, when the strength of structural elements has been so reduced that it is no longer sufficient to meet future hazards, consolidation of the existing material may have to be carried out. However, the integrity of the structural system must be respected and its form preserved. No historical evidence should be destroyed.

The utilization of traditional skills and materials is of essential importance. However, where traditional methods are inadequate the conservation of cultural property may be achieved by the use of modern techniques which should be reversible, proven by experience, and applicable to the scale of the project and its climatic environment.
Restoration

The object of restoration is to revive the original concept or legibility of the object. Restoration and re-integration of details and features occurs frequently and is based upon respect for original material, archaeological evidence, original design and authentic documents. Replacement of missing or decayed parts must integrate harmoniously with the whole, but must be distinguishable on close inspection from the original so that the restoration does not falsify archaeological or historical evidence. In a sense, the cleaning of buildings is also a form of restoration, and the replacement of missing decorative elements is another. Contributions from all periods must be respected. Any later addition that can be considered as an ‘historic document’, rather than just a previous restoration, must be preserved.

Rehabilitation

The best way of preserving buildings as opposed to objects is to keep them in use—a practice which may involve what the French call ‘mise en valeur’, or modernization with or without adaptive alteration. The original use is generally the best for conservation of the fabric, as it means fewer changes. Adaptive use of buildings, such as utilizing a mediaeval convent in Venice to house a school and laboratory for stone conservation, or turning an eighteenth century barn into a domestic dwelling, is often the only way that historic and aesthetic values can be saved economically and historic buildings brought up to contemporary standards.

Reproduction

Reproduction entails copying an extant artifact, often in order to replace some missing or decayed parts, generally decorative, to maintain its aesthetic harmony. If valuable cultural property is being damaged irretrievably or is threatened by its environment, it may have to be moved to a more suitable environment and a reproduction substituted in order to maintain the unity of a site or building.

Reconstruction

Reconstruction of historic buildings and historic centers using new materials may be necessitated by disasters such as fire, earthquake or war. Reconstruction cannot have the patina of age. As in restoration, reconstruction must be based upon accurate documentation and evidence, never upon conjecture. The moving of entire buildings to new sites is another form of reconstruction justified only by over-riding national interest. Nevertheless, it entails the loss of essential cultural values and the generation of new environmental risks.
Objectives of study

The general objective of our study is conservation of Nagadesh. The specific objectives are as follows:

- To document the traditional setting of the area
- To conduct a detail study and documentation of the monuments and architecture, their values and importance
- To get the information about ancient settlement planning and the traditional urban design pattern of Nagadesh.
- To find the information about different aspects of the town such as urban form, linkage, building typology and so on.
Methodology

- Area Selection
  - Literature Review
  - Data Collection
  - Site Visits
    - Documentation
    - Analysis
      - Conservation Proposals
  - Conclusion
INTRODUCTION

Nagadesh is one of the traditional town of Medieval period (16th c). This town was established on a terrace plateau. Nagadesh is also called Jayapur. It is an excellent example of Newar settlement which is dominantly inhabited (more than 90%) by Newars. It is agro based town. Still today, their economy largely depends on vegetable farming. This town is surrounded by cultivable farm land which is adjoining Manohara River.

There is still the flavor of an ancient township. The built environment and its constituents still reflect the Malla Period (13th -18th c) urban environment. Hence, it can be said that Nagadesh is still intact from the point of view of Traditional Urban Setting.

Location
Nagadesh is located in Madhyapur Thimi Municipality in Bhaktapur District in the Bagmati Zone of central Nepal. Bhaktapur district acquires a land area of 13,846 ha where Nagadesh includes an area of 1881 ropanis (95.69 ha). Out of this, residential area occupies 205 ropanis (10.43 ha), agricultural land occupies 1575 (80.13 ha) ropanis and other public spaces comprise of 101 ropanis (5014 ha).
Nagadesh is located at the North side of Kathmandu- Bhaktapur highway which is at 10km and 3km North West of Kathmandu and Bhaktapur respectively at latitudes 27°4´N and 85°22´E and altitude of 1326 meters (4230 feet). At the North lies Bode and Gothatar; Bode and Chapacho at east, Chapacho and Lokanthali at South. While the western side, there is the beautiful agricultural area with Manohara river. Despite its small area, it has its amazing land features.

**HISTORICAL BACKGROUND**

Nagadesh is supposed to have derived from “Naga” (Basuki Naga- 9th number of Nagas) which means snake and “desh” which means country. So, it is regarded as a country of snake. It can still be observed in the main statue of Siddhi Ganesh temple with snake as a sacred thread ‘Janai’. Similarly, the large fertile soil was greatly utilized by the farmers here, and was used as productive farmland. Their hard work was paid off by naming them as “Nara” which means “a Man” in Sanskrit. So, it is believed to be named as the country of the same as “Naradesh”. In due course of time, it was later on pronounced as Nagadesh.
According to Devmala Vanshawali, one of the Malla King named Suvarna Malla had established Nagadesh with 500 households for his son. Since it was a newly established town, it was called Nagadesh.

It is believed that the digit “9” has a great significance for the people of Nagadesh. With the same viewpoint, they were supposed to establish 9 different toles for residential purpose. Each tole was provided with a well and a water spout. 9 dhungedhara were constructed since during the establishment of Nagadesh.

**Historical facts**

- In Sanskrit language, people who are very strong and laborious and fulfill the needs of others by growing different crops and vegetables are called NARAMI. As it is the town of Narami, it was named as Naradesh but after it was called as Nagadesh.
- One of the nine (nau) Nagas (Basuki Naga) settled in the place in 9 small hills (dol in Nepali) in the time of Maha Manjushree. Nagadesh – “Nag” and “Nau” (Nava)
- During Malla period, king of three cities (Kantipur, Lalitpur, Bhaktapur) had established three small settlements. According to which, Naro(do’N), Naksaa(La), and Chabahil (La) were three settlements in Kantipur. Similarly, Panga, Nagaun and Chunga were the three settlements in Lalitpur. Later, Malla king of Bhaktapur also did same in the Western region, Thimi, Nara(Nagadesh), Bora(Bode)
- Knowing the value of 9, Narami(people of Nagadesh) established 9 toles, 9 wells in each toles 9 stones spouts, 9 guthis.

**Toles:**

1. Nya Ga
2. Pukhusi
3. Lachhi
4. Baha Nani
5. Nhu Chhen Jho
6. Chhwasa
7. Dhwakasi
8. Twa Ga
9. Pacha Nani

**Stone water spouts**

1. Garcha Hiti
2. Lha Patin Khwa
3. Chharta Hiti
4. Sinchaka Hiti
5. Ga Hiti
6. Bhan Si Hiti  
7. Nhu Hiti  
8. Ba(Bagh) Hiti  
9. Twa Ga Hiti

CONSERVATION IN NAGADESH

Mr. Shiva Ram Malla, local residence of Nagadesh, Madhyapur Thimi Municipality had started two renovation projects in association with German development service (ded) in the year 2000. The user committee was formed which was named as “Gah Hitee situ Puchah”. Mr. Shiva Ram Malla was made the chairman of that user’s committee. Under the supervision of this committee, two renovation projects i.e. Renovation of Pati and stone spout was done. These two projects was financially supported by the German Foundation “Schmitz Stiftung”. Also, renovation work of the roof of “Shree Siddhi Ganesh Temple” (Dyochhen) in Nagesh was implemented with financial support from ded.

Later, conservation work of Nagadesh was initiated with joint venture of Government of Nepal and Federal Republic of Germany (GTZ/udle). This work was executed by Ministry of Local Development. The main objective was to support the Municipalities to initiate and manage sustainable urban development with the participation of the local people. GTZ/udle had also worked jointly with Madhyapur Thimi Municipality since 2001. Mr. Shiva Ram Malla, who is the local residence and chairman of user’s committee, had incorporated during the whole project. With his cooperation, Nagadesh Art Culture and development society of ward no.4 had prepared and completed 21 different conservation and development projects. Conservation projects was mostly conducted within ward no. 4, 5 and 6 of Madhyapur Thimi Municipality. The net cost of the project was NRs. 5,980,437 out of which local people had contributed sum of NRs. 1,632,432.

Completed projects

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<th>S.N.</th>
<th>Programme Name</th>
<th>Address</th>
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<tbody>
<tr>
<td>1.</td>
<td>Reconstruction of Ga Hiti Pati</td>
<td>Ward no.4,6, Ga Hiti</td>
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<tr>
<td>2.</td>
<td>Renovation of Ga Hiti Stone Water Spout</td>
<td>Ward no.4,6, Ga Hiti</td>
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<td>3.</td>
<td>Construction of Gable Wall</td>
<td>Ward no.6 Ga Hiti</td>
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<tr>
<td>4.</td>
<td>Renovation of Sidhhi Ganesh Dyo Chhen</td>
<td>Ward no. 4, Nhyaga Tole</td>
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<tr>
<td>5.</td>
<td>Renovation of Stone Water Spout</td>
<td>Ward no. 4, Garcha Tole</td>
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<tr>
<td>6.</td>
<td>Repairing of water wells</td>
<td>Ward no. 4, Inside Nyagha Tole</td>
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<tr>
<td>S.No</td>
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<td>7.</td>
<td>Construction of Narayan Temple</td>
<td>Ward no. 4, Nyaga Tole</td>
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<td>8.</td>
<td>Re-construction of Hanuman Mandir</td>
<td>Ward no. 4, Nyaga Tole</td>
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<td>9.</td>
<td>Renovation of Stone Water Spout</td>
<td>Ward no.4, Nyapathikwa Tole</td>
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<td>Laying of Bricks in street</td>
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<td>Re-construction of Pati</td>
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<td>Renovation of Mahadev Mandir</td>
<td>Ward no.5, Dhwakasi Tole</td>
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<tr>
<td>13.</td>
<td>Construction of Saraswati Mandir</td>
<td>Ward no.5, Dhwakasi Tole</td>
</tr>
<tr>
<td>14.</td>
<td>Re-construction of Pati</td>
<td>Ward no.6, Mahakhel Tole</td>
</tr>
<tr>
<td>15.</td>
<td>Re-construction of Pati</td>
<td>Ward no.6, Bahanani Tole</td>
</tr>
<tr>
<td>16.</td>
<td>Re-construction of Lyayeku Durbar (Taleju Mandir)</td>
<td>Ward no.6, Lachi Tole</td>
</tr>
<tr>
<td>17.</td>
<td>Laying of Bricks in street</td>
<td>Ward no.6, Lyayeku</td>
</tr>
<tr>
<td>18.</td>
<td>Re-construction of Pati</td>
<td>Ward no.6, Lachi Tole</td>
</tr>
<tr>
<td>19.</td>
<td>Renovation of Sidhhi Ganesh Sattal</td>
<td>Ward no. 4, Nyaga Tole</td>
</tr>
<tr>
<td>20.</td>
<td>Laying of stone blocks infront of Narayan Temple</td>
<td>Ward no. 4, Nyaga Tole</td>
</tr>
<tr>
<td>21.</td>
<td>Laying of wooden planks in Sidhhi Ganesh Sattal</td>
<td>Ward no. 4, Nyaga Tole</td>
</tr>
</tbody>
</table>

**DEMOGRAPHIC DATA**

Nagadesh is one of the densely populated town which is located near the major cities of Nepal i.e Kathmandu, Patan and Bhaktapur. Nagadesh consists of ward no. 4, 5 and 6. But at present, these three wards are merged into single ward i.e. ward no.7 of Thimi Municipality. According to 2011 census, the total population of the Nagadesh is 6,783 and density per sq.km is 4.14. Similarly, the total household of these three ward is 1,579.
<table>
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<tr>
<th>Ward</th>
<th>Household</th>
<th>Population</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
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<td>4</td>
<td>457</td>
<td>1945</td>
<td>978</td>
<td>967</td>
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<tr>
<td>5</td>
<td>714</td>
<td>3189</td>
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<td>6</td>
<td>408</td>
<td>1649</td>
<td>855</td>
<td>794</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Ward wise Population and Household data (Source: Population Census 2011, National Report, CBS)

Nagadesh is the one of the traditional town of Kathmandu Valley. Newar community is predominant in this town. Slowly, people of different castes like Rai, Chetri, etc. is also migrating day by day. Newar language is most spoken in this area. Nepali is spoken in the second. Other languages are spoken among their respective communities. Below figures show the overall data according to caste and mothertongue of whole Madhyapur Thimi Municipality.

Table 2: Population by Caste (Source: Population Census 2011, National Report, CBS)
Newar communities are Buddhist by birth but they practice Hinduism. All the activities are related to hindu religion. But the time has been changing slowly. Most of the people are attracted to Christianity and other religion like Islam, Krishnapranami and so on. Below chart shows the overall population of Bhaktapur district who are following various religions.

As we can see from the bar chart, people are getting aware about of importance of education day by day. The literacy rate of overall Madhyapur Thimi Municipality is increasing very rapidly. Most of the people are graduated up to SLC. Only few people has got post graduate degree. Most
of the elderly people have taken education informally through the help of various INGOs and NGOs.

Table 5: Population by Education (Source: Population Census 2011, National Report, CBS)

Still 90% population of Nagadesh is engaged in agriculture. But the time is changing rapidly. People are engaged in other occupations like construction, real estate and so on. People are leaving their family profession i.e. agriculture. Below chart shows the overall population of Madhyapur Thimi Municipality who are engaged in various professions.

Table 6: Population by Religion (Source: Population Census 2011, National Report, CBS)
Similarly, most of the people are depended upon various source of water sources i.e well, tap, etc. After mega earthquake, all the water resources are getting dry. And also, the global warming has made the water crisis in this municipality as well. The main water source is from Neel Barahi. But due to the rapid population has arisen insufficiency of water supply to every household of this municipality.

![Main Water Source for Drinking](chart.png)

*Table 7: Population by Water Source (Source: Population Census 2011, National Report, CBS)*

**EXISTING SITUATIONS**

**PHYSICAL ASPECTS**

The physical aspects such as road network, water supply, drainage, electricity, communication system, etc. are the indicator of physical development. Physical infrastructures were identified by the observation and community consultation. There are basic facilities in Nagadesh, but the services are yet not satisfactory.
**Road Network**

**Hierarchy of Routes**

The road network Byakha bajar- Dhunche Pakha with width of 4.5m-5m is considered as primary route. The primary route leads from Byakha bazar to dyochhen area from the south and the other primary route from the east leads to Shree Ganesh school area to bus park area and connecting Twaga area, Dhvakasi to Dhunche Pakha towards the northern part of the city. The other primary routes are road from the old route of Thimi to Bhaktapur leads towards the western edge of the city at the Nachhe jho area and Nagadesh Buddha Bihar area.

The other road network leading to ward and town with width of 2.5m-3.5m is considered as secondary road. The secondary routes are the paths connecting the open spaces, nodes and residential areas to primary routes like path leading to Baha nani from Lachhi, Garcha to Dhvakasi. The other lanes leading to residential areas with width of 1.5m-2m are considered as tertiary road.

**Road Pavements**

The street networks of Nagadesh are in non-rectilinear form. The major access to Nagadesh is from black topped road from Bahakha Bazaar chowk and the stone paved pedestrian road on its other side. The major streets within the city are brick paved with the low depth storm water drain running along both sides of the streets.
Existing road pavement

Figure: Road pavements

Figure: Stone and brick pavement in Lachhi area
(Siddhi Ganesh temple)

Figure: Stone paved street of Twa: gaa
The iron grill gutters on the underground drain pipes are provided at regular interval. The sewer pipes with manholes are laid at the middle section of the streets and are connected to the huge sewer pipes on the south-western edge of the city.

The front street of the Siddhi Ganesh Dyo-Chen is black topped but the condition of the road is deteriorated with puddles on various section of such a short length of road. The storm drains on the black topped roads are of open type. The street leading from the Dyo –Chen to Siddhi Ganesh temple and the surrounding Baha Nani are brick paved. The streets of Nachhe Jho, Nagadesh Buddha Bihar on the north, Twa: gaa and Dhwakasi leading to the gate to Dhuncho Pakha are stone paved with the storm drains on the both sides of the street. The buspark area on the eastern part of the city has RCC surface. The small narrow lanes within the city are either brick paved or stone paved. At present, the construction materials are being stored on the streets which is depleting the quality of the pavements.

Street Furniture

The traditional street furnitures of the city are the Patis (falcha) used for resting, social interaction and even as market place, which are placed on various nodes of the city. On the way to Nagadesh Buddha Bihar, there are some of the metal benches placed near the green forest area. The chautari is built around the tree on this area. The plinths of the houses are also used for resting as well as for the social interaction.
The street lights are placed at various nodes and on the squares of the city. The solar street lights are also located near the Siddhi Ganesh Temple area, Baha Nani, Nachhe Jho area and Twa: gaa area.

**Signage**

Nagadesh city has the proper house address system, under the Thimi municipality. The municipality has provided the house address system with the decorative traditional iconography of Newari culture and architecture. There are presence of advertising hoarding boards and posters on the buildings which have deteriorated the visual quality of the city.
Jatra Route

Various jatras/ festivals are celebrated in Nagadesh by its people. The most famous festival/jatra of Bhaktapur i.e Bisket jatra is celebrated in Nagadesh. The jatra starts with the chariot ride of Lord Siddhi Ganesh all over Nagadesh.

The other gods and goddesses could not chase away the demon to hell so the Pradhans of Thimi asked Siddhi Ganesh to help them. Siddhi Ganesh agreed to help them and kicked the demon to hell. It is believed that all other Ganesh of Thimi were seating while Siddhi Ganesh was "Standing" during the Jatra celebration. The Pradhans of Balkumari used to come and invite the Ganesh thrice with the burning oil torches on 2nd of Baisakh.

The chariot of jatra used to cover the whole Thimi and bhaktapur in past days. Jatras used to run throughout the night. There was a war between Nagadesh and Thimi in 2052 BS. Before war, the jatra used to end at 5 am but after war, it is supposed to end sooner i.e. 12 am.

Normally, jatra is celebrated for two days. On the last day of Chaitra, the chariot is taken from dyochen and then heads to Pukusi, then ends on Lachhi for the day. On first day of Baisakh, the jatra starts from Lachhe and proceeds around along the Nachhe jho (new settlement), then to mathilo baha nani (upper) and tallo baha nani (lower) and then again to Lachhi with resting of the chariot on open spaces and courtyard for 30 minutes or more. The jatra finishes for this day which starts from 9p.m. and ends by midnight. On the second day, the chariot is taken from Lachhi to Jhwaku nani, Lechha, Chwassa tole, Dhwakasi, Twaga, Shree Ganesh Secondary School area, Pachha nani, Nhyonne tole and then back to dyochhen. The jatra starts from 6am early in the morning and ends by noon. During the resting period on every open spaces or courtyard, people make their offerings to the god.
Indra Jatra:

Funeral route:

In the past, death rituals were conducted in the Hanumante river situated in the south of Madhyapur Thimi. Funeral route started from the concerned house following Chhwasa tole and Nhyaga, Garcha, Bahakha Bazar and ultimately ended in the Hanumante river, but due to political conflict between Nagadesh and Madhyapur Thimi, the site has changed to Manohara river bank today. Hence the route follows the same Chhwasa tole and get outside the core area from gate in Dhwakasi tole, followed by Dhuncho pahka and then heads to Daparakh near the river Manohara.

Funeral route should not be through Siddhi Ganesh temple area as it was in the past. Chhwasa is important to perform the death rituals like throwing clothes of the death person called as Chhwasaye wayegu.
Transportation

In Nagadesh, frequent public transport facilities are available along the Kathmandu - Bhaktapur Road. Bus is the major public transport facility, which is affordable and easily accessible. Majority of people use motorcycles in Nagadesh. The various modes of transportation available, especially bus facility has helped to transport vegetables and other agricultural products to Kathmandu, Bhaktapur, Lalitpur etc. Thus, this has saved time as well as labor of the farmers of Nagadesh.
Water Supply

In Nagadesh, the main source of water supply is KUKL, supplied from Bode Water Treatment Plant. The diameter of these pipelines are 2” and cater the entire settlement of Nagadesh. The majority of houses in Nagadesh have water supply pipelines. Likewise, community municipal taps are also provided at regular interval which supply clean drinking water. Water is supplied for 3-4 hours in the morning as well as in the evening. Since the Bishnu Tirtha area is located at the height, so the area has inadequate water supply.

The people of Nagadesh also depends on the wells and water spouts to carry out their daily activities. There are wells with pumps in each courtyard, which is used for different purposes such as washing, bathing, agriculture related works etc. Usually, the vegetable keepers use the wells and hitis early in the morning to wash vegetables. Primarily, there were four major wells that were the main water sources for the Nagadesh dwellers. But with the increasing demand of growing population, number of wells were added. At present, there are total nine wells in Nagadesh.
The stone water spouts are also major sources of water supply for household. Although, previously there were nine water spouts, but there are only seven water spouts at present. The different water spouts are Garcha Hiti, Lha Patin Khwa, Chharta Hiti, Sinchaka Hiti, Ga Hiti, Bhan Si Hiti, Nhu Hiti, Ba(Bagh) Hiti and Twa Ga Hiti. Among them, water spouts such as Ga Hiti, Garcha Hiti, Lha Patin Khwa Hiti and Nhu Hiti have been renovated.

**Waste Management**

In Nagadesh, solid waste are collected by the municipality. These wastes are collected daily in the morning and the type is door to door collection. The waste is then collected by the truck in the open space near the entrance to Nagadesh. The space is used for parking during the day.
However, waste are also dumped along the slope in Mahakhel area and open spaces in Garcha Tole. In some areas, kitchen waste are collected and used as compost fertilizers.

Drainage

The drainage lines are laid along the streets of various capacities throughout the settlement of Nagadesh. The pipelines are connected to the main manhole and finally linked to the river. The busy streets of Nagadesh previously had smaller diameter pipelines which have been replaced by new pipeline of 24” diameter.

The storm water drain runs along both sides of the streets which is connected to sewerage drain. The iron grill gutters are provided at regular interval. The sewer pipes with manholes are laid at the middle of the streets and are connected to the huge sewer pipes on the south-west edge of the city. The storm drains on the black topped roads are of open type. Open drains should be constructed for storm water in new developing areas.
Electricity

The whole Nagadesh area is supplied with electricity since 2025 BS. Due to electricity, small factories such as rice mills have been in operation. In Nagadesh, solar energy is also used in many households. Likewise, solar street lights are also provided along the roads and in other public spaces. The electric poles as well as wires are unmanaged.
Communication

Almost all the houses have landline phones, radio and television. Majority of people use NTC and Ncell mobile phones. Likewise, people also use different internet facilities such as ADSL, SUBISU, Worldlink and mobile data.
Inventory of Monuments

1. Siddhi Ganesh Temple

Location: Nagadesh, ward no. 06, Lachi tole

Description: 3 tired temple, constructed of metal roofing, and was recorded in Nepal Sambat 766 as well as Nepal Sambat 852 and 889 (i.e., during the regime of Ranajit Malla) of ancient original style was constructed during malla period

Material used: Brick, timber, metal

Significance: Consisting of different type of archive records and inscription kept by different people of Pradhananga caste group, this temple has the religious, cultural, historical and archeological importance. It is also important architecturally. It is one of the main attraction and important landmark of Nagadesh.

Management: Public

Function: Puja, devotion to god and caters as starting point for different jatras

Conservation works: 2045 BS- Renovation of roof
2073 BS- Replacement of corner wooden pillars and reconstruction of external brick wall.
**Present Condition:** The renovation works are taking place in this temple and this is done by Department of Archeology. The back wall of the temple is fully replaced by new brick wall and one of the corner pillar is also replaced. As per locals and official of DoA, the foundation is also found to be damaged and weak. The 4 pillar on the ground floor is strengthen using copper for structural support. Life span of wooden edges of Siddhi Ganesh temple increased by protecting it from exterior weather condition through addition of metal plates on the edges.

2. **Pond at lachhi tole**

   **Location:** Nagadesh, ward no. 06, Lachi tole

   **Description:** 50’ x 100’ rectangular pond

   **Material used:** Brick, stone, cement plaster

   **Significance:** Pond also called PUKHU in Newari language. Thus area developed along the side of this pond is named as PUKUSHI (means side of the pond). It is an important pond where Leg of *ranga* (he-buffalo) is thrown into the pond during “Ranga Ko Khutta Falne Jatra” in the day of Gaijatra.

   **Function:** used during festivals and jatras

   **Present Condition:** The pond is damaged in some parts and the debris of dismantled houses nearby is kept inside the pond. The pond is dry and has no water at all.
3. Stambha Narayan

**Location:** Nagadesh, ward no. 06, Lachi tole

**Description:** Statue of Narayan consisting of Kamalasana is kept on the top of stone column. Inaugurated by Audhatram and Jyatiram, the construction technique and style is modern. The stambha was placed during 2008 B.S.

**Material used:** Stone

**Significance:** The stambha is made of a single stone with statue of Narayan at the top and hence carries religious and cultural importance. It is one of the local landmark of this area.

**Function:** Puja

**Management:** Public

**Physical condition:** The condition is fair. The *stambha* is deteriorated to some extent.
4. Siddhi Ganesh Dyo Chenn

**Location:** Nagadesh, ward no.4, Nyagacha

**Description:** Constructed by personnel named Rudra Narayan Pradhananga in 1841 during Shah Period. Use to house the chairots of gods, consists of Sattal, pati, and torana carved at the entrance gate.

**Material used:** Brick, wood, metal

**Significance:** The temple has traditional, spiritual as well as architectural importance and contains variety of god and goddess. It is also an important landmark of Nagadesh.

**Function:** Puja, devotion to god, local parties

**Management:** Public

**Conservation works:**

**Present Condition:** The dyo chhen is in good condition externally but according to locals the floors are weak and vibrates even when a single person walks. The windows and niches of dyo chhe are being used by pigeons as their homes.
5. Chaitya at Chwassa

**Location**: Nagadesh, ward no. 4, Chwassa tole

**Description**: Established in the Lichhavi period

**Material Used**: Stone, brick, metal

**Significance**: Constructed in ancient technique, this Buddha chaitya has artistic, religious and traditional importance. It is a prominent landmark with unique feature.

**Function**: Worship

**Management**: Public

**Physical condition**: Good

**Fund**: 

![Image of Chaitya at Chwassa](image-url)
6. **Bishnu Kunda**

**Location:** Nagadesh, Ward no, 05, 800m north of Mahakal. Located at the fringe areas of the city

**Description:** also known as “Dasparmita” which consist of different pilgrims and religious statues. The name Bishnu Kunda has been derived from “**Bouddha Tirtha Bishambhu**”. It has 10 statues of Lord Karunamaya, Ganesh, Chaitya of Lichhavi and Shah Period, holy footprint (Paduka Shila) of Lord Bishnu etc.

**Material used:** Brick, timber, metal, stone with modern technology

**Significance:** this place is very important from religious point of view and the pilgrims of this place has historic importance also. The place is famous for doing “shraddha”- religious ritual performed for the deceased family member which was performed around the footprint of Lord Buddha. There are different footprint for male and female which vary in size. On the day of Janai Purnima, great mela take place in this place and many people visit this place and take bath with the belief of getting blessing. The chaitya from Lichhavi period was believed to be one of the 108 stupa built by Emperor Ashoka throughout the country. Also it is believed that the Lord Shiva had rested in this place after drinking poison and left for Gosainkunda within 3 steps from there.

**Function:** daily worship, perform ritual like Shraddha and mela once in a year on the day of Janai Purnima
Present condition: Bishnu Kunda has been gone through conservation to its present condition just before 2 years with the involvement of local people. The water of the pond has been dried which was filled again during conservation. During this process, Shiva Linga with different names of Lord Shiva and different idols of Gods and Goddess has been established around the pond. The priest of Pashupatinath inaugurated the place after conservation.

According to the Local people, the small stupa from Lichhavi period was removed from the water and placed outside enclosed within glass box. Similarly, there is one pati and bhajan ghar which was constructed but both these buildings are constructed with modern technology. The
place also had one traditional Sattal which has been destroyed due to lack of maintenance so funds are being raised for its restoration.

7. Layaku Taleju

**Location:** Nagadesh, ward no. 06, west wing of Siddhi Ganesh area, Lachhi Tole

**Description:** it is the heart of Nagadesh which was constructed during Malla period. It was partially destroyed in 1980 BS and 1990 BS. During that period, this place was the regional administration of Nagadesh city. It was the royal palace where Goddess Taleju was kept and worshipped. Nobody has the significant evidence about how big was the place.
**Material used:** Brick, timber, metal, stone, modern technology

**Significance:** this building has historic as well as religious importance. Layaku refer to the palace in earlier time. It has been renovated in traditional way by using brick exposed facade and roof of jhingati tiles about 10 years ago. The building consist of silver symbol of Goddess Taleju and various weapons such as Khunda, Khadga which is worshipped daily.

**Present Condition:** Layaku area of Nagadesh is small area which consist of two buildings of two storey which reflect traditional newari architecture and partially enclosed open space with well at the center. Among the two buildings, roof of one building had been destroyed by Gorkha earthquake 2015 and now it has been covered by CGI sheet. During this earthquake, the priest of the temple (Goddess Taleju) had lost his house so he has been using the other building as residential quarter.

The center well of Layaku has been covered with concrete slab from security point of view and hand pump has been installed outside to get water from well. The remaining space and the ground floor of the building has been used as storage for building material such as reinforcement bar and wooden post. The Layaku area was considered very important part of any traditional city, but today the importance has been suppressed by the tall buildings of surrounding.

Layaku has been reconstructed about 10 years ago by **Nagadesh Art and Culture Development Society** with the help of German Development Program and local resident. It has been renovated in traditional way by using brick exposed facade and roof of jhingati tiles.
8. Siddhi Ganesh Sattal

Location: Nagadesh, ward no. 06, east of Siddhi Ganesh temple, Lachhi Tole

Description: exact date of construction is not known but believed to be of historic importance.

Material used: Brick and timber which reflect rich traditional architecture.

Significance: building holds architectural and historical importance. This Sattal has been used by Bhajan Mandal so it also holds social importance.

Present condition: Siddhi Ganesh Sattal was one of the important landmark of Lachhi Tole which hold historical, architectural and social importance. The ground floor of the Sattal has
been used by siddhi Ganesh Bhajan Mandal at the morning and also important for social
gathering. It has been reconstructed about 10 years ago by Nagadesh Art and Culture
Development Society with the help of German Development Program and local resident

During our first visit to the site, the Sattal seems in good condition externally and no temporary
supports were provided. But during our next visit, the Sattal was being dismantled and according
to the local people, the Sattal was structurally not sound as it got damaged during Gorkha
Earthquake. Today, this Sattal has been completely dismantled to the ground. The local people is
coordinating with DoA (Department of Archeology) for reconstruction of Sattal and architectural
drawings has been proposed for its reconstruction.
9. Small Temples and Chaityas

Beside these, there are other small temples and chaityas in every toles of Nagadesh. Some these temples are new and some of them are from ancient time. These temples are important from religious and social point of view. These temples, chaityas and chibas are very important in the traditional town. Every tole of traditional town has at least one Ganeshsthan and the open space has chaityas or chibas.
Present condition

All these temples, chibas, and chaitya are being worshipped every day by local community people. Some of them are renovated in past years but these temples are not being properly conserved. Some of these temples are provided with iron railings and bar to make them secure. Modern building materials such as cement plaster and paints has been used over its surface.

These are not monumental yet they are socially important and are integral part of the traditional city. There is emotional linkage of local people with these small chaitya and temple so proper
prevention/preservation is necessary. Local people should be aware about the importance and regular maintenance of these temples.

10. Water spouts

There are various traditional and historic water spouts “Hitis” in the city. As it has been already mentioned that there were total 9 water spouts in Nagadesh among of which only 7 are present today. These spouts are very important from social and architectural point of view. These Hitis are the major source of drinking water in traditional newari community and it is also the place where women could meet/gossip with each other.

Present condition: Some of these water spouts are still functional and provide natural water which has been using for daily household work. But some of them provide water from the reservoir as the natural source has been dried out due to densification and establishment of individual well. Some of the water spouts such as Ga Hiti, Garcha Hiti, Lha Patin Khwa Hiti and Nhu Hiti have been renovated in past years but the exact dates were not known.
Building Typology On The Basis Of Style

There are different styles of buildings within Nagadesh such as old and traditional, old and composite, modern and modern with brick facade. About 22% of the buildings are of old and traditional styles which are brick exposed with jhingati tiles, timber door and window frame. Likewise, 20% of the buildings are of old and composite type where plaster is added in the traditional building. Similarly, 42% of the buildings are modern which surrounds the core traditional settlement whereas 16% are modern with brick facade constructed during different period. This is due to the construction of building in one period of time and increment of floor height in different period of time.
In the core area, there are majority of traditional building with some modern buildings. However, the modern buildings in the core areas also have brick façade, which shows an attempt to conserve the essence of the traditional newari settlement of Nagadesh. In contrast to that, the outer circumference of Nagadesh has a majority of modern buildings. Due to urbanization and commercialization, the style of buildings has changed according to use. The ground floor of most of the buildings has been rented for different commercial purpose.

**Building Typology On The Basis Of Use**

In Nagadesh, majority of buildings i.e. 72% are residential buildings followed by mixed use i.e. 26%, where ground floors are occupied by the rental shops and the upper floor are used for residences, offices etc. Only 1% of the buildings are used for commercial activity. Activity differs with the floor. About 0.75% of the buildings are used for social purposes which include guthis, Aama Samuha, pati etc. and 0.25% are used for institutional purpose. These buildings are either privately owned or owned by guthi.
The use of the building is mostly guided by road accessibility. Most of the mixed use and commercial buildings are located at Bhyakhya bazar, which is the entry point to Nagadesh.

Among the residential buildings at Nagadesh, the core area consists of traditional buildings that are typically four and a half storey. Taking the whole Nagadesh into consideration, most of the buildings are four storeys.
Street Elevations

Nagadesh is a city with rich diversity in culture, tradition and religious background. The city seems to still have intact the authenticity and integrity of traditional architecture. But we can observe gradual changes in traditional ambience visible due to the change in socio-economic condition of the people which is probably the result of conversion of agricultural land for residential and commercial purpose.

The changes in the medieval town are marked by new residential development inside and outside the core area. The noticeable indications of these changes are as follows:

- Floor addition in existing old building
- Replacement of stone paved street by black topped
- Vanishing and encroachment of important structure
- Drying of wells
- Dilapidated condition of ponds, stone spouts
- Changes seen in building typologies, new use of space (open, semi open and closed)
- RCC based modern residential development is very prominent along main entry
- New activities in the area: shops, workshops, restaurants, etc.

Bhyakha Bazaar

The main entry point to Nagadesh is the Garcha tole which includes the Bhyakha Bazaar. This is the lane containing vivid architecture throughout different period like- Malla, Rana etc. It is a socio-economically active node and urban sprawl has reached the lane where we can see houses with modern façade. Bhyakha Bazzar has seen many changes throughout the ages but it is currently under threat of deterioration. The houses with Malla architecture are mostly declining
due to lack of negligence, no maintenance and urbanization. The traditional houses are deteriorating day by day mainly after the big earthquake in 2015.

The existing elevation of the Byakha Bazaar stretch has an uneven skyline which is directly affecting the historical essence of the place. Most of the traditional houses are collapsed, some remaining is added with the modern style upper floors and some are newly built modern facade houses. As shown in the existing stretch elevation of Bhyakha Bazaar, the buildings slowly engulfed by urbanization are in urgent need of conservation considering the building bye-laws and guidelines. This entry to Nagadesh is the lane which should be architecturally enriched so as to co-ordinate and shore up to the core.

Byakha Bazzar has many unmanaged open spaces, no specified vehicular access and haphazard parking areas. This space which is engaged for organic farmer's market mainly from 2am to 6am is in chaos due to lack of proper planning and vision.

Nyaga/ Dyochhen Area
Over 100m east lies the main house for the deity i.e. Siddhi Ganesh Dyochhen. It is also used to house the rathas (carriages) of Bisket Jatra and others. This area is an important part of Nagadesh religiously as well as socially. Apart from that, it is the main route for morning vegetable market. The buildings near dyochhen in existing condition are being modernized. No care is given regarding the byelaws and building guidelines. The buildings have totally dominated the significance of Dyochhen. No effort is seen from local guthis and Department of Archeology to maintain the traditional built environment of the area.
Siddhi Ganesh Temple Area

Siddhi Ganesh Temple is a 16th century 3 tiered temple located in Lachhi tole of Nagadesh. In different time period this temple has been renovated by the locals on their own efforts. It is one of the main attraction and important temple of Nagadesh. Almost all religious activities and festivals are associated with this temple and temple area.

There is a sattal near the temple which was used by people for social gatherings and interactions. The sattal is now being demolished for reconstruction.

At the east side of Siddhi Ganesh Temple, there is 50’ x 100’ rectangular pond (pukhu in Newari language) which is used during festivals. Thus area developed along the side of this pond is named as Pukushi (meaning side of the pond). Although it is one of the most important areas, the houses in the area are mostly modern. The pond is left unmaintained and the construction materials of the temple and sattal are stored inside the pond.
Twaga

Twaga Chowk is predominantly a residential stretch of Nagadesh and also a prominent route for one of the auspicious naach performed on the streets of Nagadesh namely Mahakali naach. The houses here are more likely used as residences and their ground floors are used for their personal activities such as garage, store, etc. Nevertheless, the chowk oozes the true essence of a Newari settlement by the activities carried out by the residents and the façade treatments followed by the buildings. Though the settlement is a Newari community, the existing stretch elevation specifies the influence of Rana architecture and is visible till date. Likewise, haphazard use of cement plaster, CGI sheet on façade, replacing tiled slope roof either by cement or flat slab or CGI sheet has reduced the architectural importance of this area. Nonetheless, these façade treatments divulge the historic architecture of Nepal and must be preserved for our younger generation to see, observe and study.

Change in Residential trend
Modern – 35%
Traditional – 65%

Ground floor of this stretch has been used as storage. Most of the people use ground floor as parking space also. Similarly, they use upper floor for residential purpose. A cluster of buildings forms a courtyard which is used collectively by the respective cluster for different personal purposes as well as a junction for social gathering.

New construction does not match the existing surrounding in terms of building material, storey height and volume of the building. Traditional buildings have been replaced by tall buildings with little emphasis on traditional features due to modernization and lack of awareness in people. Thus, with this conservation project, we can preserve the authenticity of Twaga chowk with essential alternations and renovations as per the need of time.

Street Elevation of Twaga
Chwasa

Chwasa is the junction of Nagadesh town predominantly a residential zone with multiple activities carried out in the ground floor of the buildings such as shop, hotel, store, etc. Likewise, it is one of the prominent routes for the auspicious Mahakali naach. Chwasa chowk has buildings constructed with no height restrictions as a result of which, the elevation of this stretch does not appear to be eye-pleasing as it could be. The rich Newari architecture of Chwasa chowk is gradually diminishing due to the encroachment of urbanization and modernization in the traditional town. The use of modern materials such as RCC and glass paned fenestrations in the exterior façade has degraded the essence of the town. Since the chowk is itself a junction, it is a highly busy street and other additional activities in the street will add chaos and confusion to the residents and visitors.

Dhwakasi

Dhwa kasi is a mixed zone with residences, offices, organizations, etc. located at the same place which makes this stretch discreet and vibrant at the same time. It acts as a meeting point for people from Twaga chowk, Chwassa chowk and Mahakhel area and can itself be a social interactive space. Likewise, the elevation of this stretch has the same problem as the other chowks such as uneven skyline due to height differences in buildings and use of different materials creating unpleasant façade.
Mahakhel
It is an east west long slopy area with abundant trees occupied by an open ground known to be Mahakhel area. Every one member from each family from Nagadesh used to participate for a feast on special occasion in this area. This area has a pati, Buddha chaitya, Buddha Bihar and other shrines. Every morning and evening, large number of people gathers here. It can be a place of tourist attraction, a picnic spot providing views to the natural scenic beauty, if maintained and promoted properly. However due to unmanaged and haphazard development and urbanization, the significance of this area has been deteriorating day by day. The open space is in verge of being left unused and encroached.

INTANGIBLE HERITAGES

Guthi system

The prevalent Guthi system in the nation as a whole can be traced back to Lichhavi and Malla Era. The Guthi system was established with the coordination of the kings and the local people, which is still an important part of our culture. It is one of the important social institutions established within the Newar community. The Guthi has a vital role for the performance of
various festivals, feasts and socio-cultural activities in the Newar community of Nagadesh too. The existence of Fuki Guthi in the Newar Family, Si Guthi for the death rituals and Taleju Guthi as the royal Guthi of the traditional Malla town can be found in Nagadesh.

Various Guthi are still functioning here in Nagadesh for the celebration of Siddhi Ganesh Jatra (Bisket Jatra). For the proper management and the celebration of the Jatra, the various Guthi do their respective duties like the Pooja, chariot construction, Baaja and feasts. The names of the Guthis involved in the Siddhi Ganesh Jatra (Bisket Jatra) are listed below:

1. Noll Guthi
2. Chhatra Guthi
3. Sinnha (Sindur) Guthi
4. Dyo: Guthi
5. Dhime Guthi
6. Lu Pol Guthi
7. Nhyakhi Guthi
8. Jugi Guthi

Other Guthis for the various festivals are listed below:
1. Degu Pooja (Deewali) Guthi
2. Sithi Nakha Guthi
3. Gathamuga Chahhare Guthi
4. Holi Punhi Guthi
5. Yomari Punhi Guthi
6. Sanhu Guthi
7. Mila Guthi

Nagadesh has ten different Si Guthis which are listed below:
1. Thimi Guthi
2. Tako Guthi
3. Ta: Guthi
4. Kawadi Guthi
5. Mungka Guthi
6. Kumha Guthi
7. Nyaya Guthi
8. Kacha: Guthi
9. Jugi Guthi
10. Pradhananga Guthi
**Taleju Guthi**

The Taleju Guthi looks after the Taleju Bhawani which is housed at the Layaku building. At present the Guthi has only 5 members remaining with Mr. Raj Kumar Bade as the head (Naikey) of the Taleju Guthi who is active member of the guthi. Earlier, there were 4 Pradhans and 4 Duwals but now about 33 have already left the Guthi as they faced the financial distress to sustain themselves in the Guthi due to expenses to be borne by themselves for the celebration of various festivals and feasts. The Guthi has done the renovation of the Layaku building and plastering of the Shree Siddhi Ganesh Youth Hall which lies adjacent to the Layaku building, about 10 years back. The stone pavement on the Layaku courtyard was also done and the well at the centre of the courtyard was covered as the children used to throw rubbish plastics and stones into the well and now fitted with water pump.

The Guthi celebrates the Astami and Dashami during Dashain with the sacrifice of the buffalo at the Layaku. The knee of the buffalo is thrown at the Pukushi Pokhari and whoever gets the knee keeps it. At present, the pokhari has no any water so the celebration of this festival was not performed this year. The pokhari is dry and is littered with the building construction materials. To conserve this festival, the maintenance of the pokhari is important.

![Image: Chopped knee of the buffalo at the Lachhi](image)

The Guthi also celebrates Paachare, Guna punhi, Yana Punhi, Kuvindo katne Jatra during Ghantakarna. Paachare is believed to be celebrated to keep away the devils and protect the lives of the inhabitants of Nagadesh as more deaths occurred at earlier times.

**Siddhi Ganesh Guthi**

Siddhi Ganesh Guthi is responsible for the daily pooja and rituals of Siddhi Ganesh temple. For the celebration of Siddhi Ganesh Jatra, various other Guthi are present who perform their respective works during the Bisket Jatra and Indra Jatra. The Noll Guthi is responsible to build the chariot while the local people participate in the celebration of the Jatra. The Jatra is celebrated by the financial support of the locals. The Jatra has 10-12 Khala of Dhime Baaja within the Dhime Guthi, which performs the Baaja during the Jatra celebration and is considered
to the biggest Baaja group during Bisket Jatra. The Baaja is taught free of cost and the younger generation continues to learn from their elders.

Siddhi Ganesh Jatra is the biggest chariot of Bisket Jatra in Thimi and used to part of the 32 chariots procession in Thimi during Sindur Jatra (Bisket Jatra). There was a big fight with Thimi in 2052 B.S. and the participation of Siddhi Ganesh Chariot was discontinued in Thimi. The chariot is carried by 20 people and is carried in the entire Nagadesh town for 2 days. The chariot is stored in Dyochen after the celebration of Bisket Jatra and Indra Jatra. People of Nagadesh consider Siddhi Ganesh as their main deity so they continue to celebrate the Jatra of the Ganesh with the financial support from the local people. Recently, the reconstruction committee of the local people was formed to look after the renovation work that is being carried out by the DOA.

**Pulukishi Jatra**

Pulukishi is a Newari cultural dance performed during Magh month (Duwadashi after Shree Panchami) at Nagdesh based on myth of Swathani. For the celebration of the Pulukishi Jatra, one who is willing to be the Prince has to declare himself, and conduct the dance at his own expenses now-a-days. With the lack of financial support and personal expenses, this dance is discontinued.
Mahakali Naach

The Mahakali Naach is performed during August for 4 nights after Gai Jatra. It is believed to be performed since 300 B.C. to keep away fear of evil, theft, and prevent natural disasters of water, fire, lightening and wind. The Mahakali Naach has 18 devgans, Goddess Mahakali as central character, and other Devgans are Mahalaxmi, Kumari, Singha, Mayur, Mahisasur, Bhairav, Kawangcham Mala, Khyak and Betal. The dance enacts the battle with demons which starts at around 7 pm and until midnight. The Mahakali Naach which in not tantric dance is performed in Twa: Gaa area and the Betal Naach; part of Mahakali Naach is performed in front of Siddhi Ganesh temple.

The Mahakali Naach was revived after 7 years in 2016, discontinued from 2009 due to the financial crisis to conduct the Naach and the feasts for the participants of the Naach. To conduct the Naach in 2016, Ministry of Culture, Tourism and Civil Aviation provided Rs 25,000 as grant. To continue with the performance of Mahakali Naach, Nagadesh Cultural Pucha was established and has collected about Rs 650,000.

At the current scenario, the people are willing to revive the dance and have collected the money to conduct the Naach and the feasts. But the lack of proper training of the Naach and the facility to the performers of the Naach, there is lack of enthusiasm amongst the participants.

To conserve the Naach, the government should support provide the Cultural Pucha with financial support and the participation and the willingness to learn the Naach can be encouraged with the provision of incentives or any kind of support like health insurance.
Bhairav Naach

The Bhairav Naach is performed during August for 4 nights after Gai Jatra. It is performed with tantric pooja and is believed to have divine powers during the Naach. There are 2 Bhairav, 2 Kumari and 1 Jhyapunga (Child) in the traditional dance. The Bhairav Naach is performed to chase away the evil from the town. It starts from Lachhi area and go around the city for 4 nights. The participants of the Naach are mainly Majarhan, Dongol and Shrestha. Their dance training begins after Ghantakarna with various traditional Baaja like Daaga Baaja, Bhugya Baaja, Ponga Baaja.

The Bhairav Naach was revived after 7 years of gap from 2009 due to lack of financial crisis. At present, the remaining dance guru is 78 years old and he is the only one knowledgeable person to teach the Naach to the participants. The participants are not able to perform the dance properly and should practice the dance every year, which will help to conserve the traditional dance of Nagadesh. The Naach had expenses of about 7 lakhs last year and the financial support is not much form the government. The municipality provided Rs.15,000 as support which is very less for the continuation of the dance in the future.

At present, the Bhairav mask is equipped with decorative led lights, which was added recently. The decorative lights might seem beautiful but it can be viewed as negative intervention and such lights on the mask and on the chariot must be removed to maintain the authenticity.

The government should encourage the participation for the Naach by providing them with financial support, incentives during the Naach and health insurance. The DOA should coordinate with the local people to conserve the intangible heritage too.

Basuki open area

- Now not on the cadestral map
- Basuki Naag remained there after Manjushree drained out Kathmandu valley form the Chovar
- ‘Bau’ offer….pooja from the family…. Improve the health…
- Near the basuki area, small pond previously
- Drop some coins and get the required fish….In case of emergency
- …no extra fish…if done so…turns into snake…
Previously no proper drain… flooding on that area….huge sewer line laid out few years back
Planning to revive the fish pond, Basuki area and build a pati

SOCIO-ECONOMIC ASPECTS

Nagadesh is a historical town with traditional settlement. The core settlement is located in the tar land which is surrounded by agricultural land. It is well known for its agricultural activities and one of the major vegetable source of the Kathmandu valley. The majority of people of Nagadesh are involved in agriculture. The major vegetables grown in Nagadesh are seasonal vegetables like spinach, carrots, garlic, cauliflower, potato, etc. The vegetables grown are said to be fresh and organic which are exported to other cities like Kathmandu, Bhaktapur, Lalitpur etc. The water from Manohara River is used for irrigation purpose.

The settlement of Nagadesh is agro-based where most of the family is dependent upon agriculture. The true identity of Nagadesh is reflected by the activities that takes place in the early hours rather than in the mid-day. In the morning, the major activity that takes place is the vegetable market set in the street from the Dyochhen/Nyaga area, Garcha Tole and up to the Bakha Bazzar, which is the main access point to the Nagadesh at South. Usually, the activities starts in the area from about 2 a.m. in the morning. A large number of people gathers to buy vegetables from different places like Kalimati, Jorpati, Bhaktapur, Thimi etc. After 5 a.m., the activities slowly decreases and the vegetable market close down at around 6 a.m. Then the other commercial activities such as grocery shops, street vending starts to take place.
In Nagadesh, people have also started vegetable vending as their source of income. The families who don’t own any agricultural land or who have migrated to the neighborhood are mostly involved in such occupation. In the evening, people return from their field along with their agricultural products. The use of streets and courtyards increases when the family members together clean and prepare the vegetables for the following day. The activity gradually decreases as the people complete the preparation of the vegetables.
Likewise, most of the buildings in the settlement are residence while some of the buildings are mixed use. The ground floors are mostly used as shops, hotels, workshops, stores or for parking. Besides agriculture, the different other occupations of people in Nagadesh are carpet weaving, butchery, embroidery workshops, spice grinding etc. Women utilize their free time in handloom clothing. There is lack of technological advancement in textile industry in Nagadesh. Bakha bazzar is the main entry point and economically active area with different shops, Banks etc.

With the change of time, educated intellectuals started the concept of saving and giving loan to farmer for better production. The different cooperative firms in Nagadesh are:

- Matina Saving and Credit cooperative limited, Garcha
- Kopila Saving and Credit cooperative 2064, Nyaga
- Jaipur multipurpose cooperative limited 2057, Dwakasi
- Lu: Ja: Misa Saving and Credit, 2056 Kamal Binayak Marg
- Lu Bhaya Saving and Credit Cooperative
- Co-operative Saving & Service Centre
LANDUSE

Nagadesh is an ancient newari agro based town. It can be conceived as one of the satellite towns to Bhaktapur. Previously nagadesh was confined to the core settlement which we see today. Being located at the hillock, the surrounding low lands were used specifically as a farmland where they used to grow paddy, wheat and vegetables. Nagadesh used to supply vegetables to Kathmandu city after fulfilling the local demand within Nagadesh itself and other local markets.

But due course of time alternative roads opened to Nagadesh area that connects the Sanothimi area with Bode. This road further connects Bode to Mulpani area and ultimately to the Pepsi cola. This road accessibility resulted in the conversion of the agricultural land to residential plots with the involvement of land brokers. Nowadays we can see such transformation in almost all part of the agricultural land surrounding Nagadesh. The residential development is connected by very narrow roads which are not as per standard and in the long run very nuisance and problematic.

Lack of planning intervention will result in the unsustainable future of the area.

Despite the unplanned residential development, there are lot populations who wish to continue their agriculture occupation which is a very important factor in the sustainable development. So, there is an utmost necessity of proper zoning and regulations to be institutionalized and followed.
ANALYSIS

PHYSICAL ASPECT

Analysis on Road

Road from Byahaka bazar to Dyochhen

The road is black topped and has vehicular access as well. The condition of the road is poor and is deteriorated with puddles. The walkway on the right side is brick paved which can be estimated that the road was brick paved at earlier times and then later only converted to black topped in course of time as part of modernization due to introduction of vehicular access in the inner city. This also causes traffic congestion in the core area which is deteriorating the environment and traditional form of the city. There is no proper hard surface pavement on the existing bus park area which is very dirty and shows the ugly face right at the entrance to the inner city area from Byahaka bazar.

Figure: Black topped road from Byahaka bazar to Dyochhen

Figure: Bus park area
Parking has been done haphazardly on the sides of the road. The space in front of Dyochhen has been used for parking of vehicles obstructing the view of the traditional forms of the surrounding. Low depth storm water drain along the roads seems to be insufficient in rainy season. Iron grill gutters are laid on underground drain pipes at regular interval. Sewer pipes with manholes on the middle of the road are laid and connected to huge sewer pipes on S-W edge of city.

**Figure: Parking on sides of road in front of Dyochhen**

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**Road connecting Dyochhen to Siddhi Ganesh Temple via Pukhusi**

The brick paved road leading to Siddhi Ganesh temple from Dyochen is in good condition with drains on sides of road. However the storage of building construction materials like sand, bricks, reinforced rods, gravels on the surface of road is deteriorating the quality of pavement of road. Parking has been done on the narrow road as well as on the open spaces of Lachhi. The road on the southern side of Pukhusi is in dire need of maintenance as the pavement is extensively damaged with broken bricks.

**Figure: Brick paved road from Dyochhen to Lachhi**

On the other hand, the different pattern of pavement on the surface of Lachhi area is quite interesting and shows the unique identity of traditional form. The stone considered as a holy entity on the Lachhi area is paved with a circular brick pattern enforcing a focus to viewers which gives a sense of place in the area. Stone pavement has been done on the western side at the main entrance of Ganesh temple where different rituals are performed at various occasions like traditional dance, puja, offerings to god, lighting *palas* on special events such as New Year.
Road on northern edge leading to Nagadesh Buddha Bihar

This stretch of road is well maintained with stone pavement on the middle portion of road and brick pavement on the adjacent walkways segregated by side drains. As it lies on the northern edge of the city, it provides a sense of openness with a pleasant panoramic view of green agricultural fields on the lower land. Street furniture like benches and patis are provided here which can be used as place for relaxation for visitors. Signage are not sufficient in the inner roads of the city which would have made it easier for finding directions to people coming from out of this area.

Road on southern edge of city

The black topped road on the southern edge of city provides an appealing view of green agricultural fields on the lower level. The pavement of road is in proper condition with provision
of solar street lights at regular intervals and side drains. However the side drains do not seem to be well functional as the iron grills gutters are covered with garbage. Solid wastes are thrown haphazardly from this raised area on the southern slope to the agricultural land below. This unmanaged solid waste is not just deteriorating the visual quality of this area but also hampering the health condition of the people living in the surrounding area.

Figure: Black topped road on southern edge of city

Figure: Solid wastes thrown on southern slope haphazardly

**Analysis on Transportation**

There is no defined parking area and the buses are parked along the road and open space at the Garcha Tole, near the entrance to Nagadesh. Likewise, motorcycles and cars are also parked in the open spaces in different toles.

**Analysis on Monuments**

1. **Siddhi Ganesh temple**

This temple has gone through various conservation works over the course of time. During these conservation works, various new material were also added on the temple which did not seem to be appropriate. The wooden pillars are covered with metal sheet where as the brick wall was replaced by wall tiles. The iron grill has also been added for the safety.
Recently the conservation work is taking place in this temple by DoA. But the technique applied is not appropriate and earthquake resistance. The new wall is constructed but it is not Brick wall covered by wall tile.

Metal plate covering wooden post in Siddhi Ganesh Temple.

Use of metal grill damaging the outer look.

Temple in 2073 BS before renovation.
tied with the structure so there is high probability of the wall to leave the structure even it gets small shake. The new pillar is also added without any ties (chukul). The wall with tile is also replaced by brick faced wall with realisation of importance of authentic traditional materials.

Conservation works taking place in 2073 BS

2. Pond at lachhi tole

The pond also has also gone through various changes over the course of time. The brick wall has been plastered which is against the rule of conservation. This pond has various significance in terms of socio cultural importance but the proper maintenance is lacking. This might decrease the emotional value of the pond. So proper maintenance of the pond is seems to be necessary.

Before

In 2067 BS
3. Siddhi Ganesh Dyo Chhen

This dyo chhen has also undergone various renovation works. The condition of the dyo chhen looks okay from outside. But the pati on the ground floor of the dyo chhen is closed using the metal grill which is not looking good at all. One of the windows of this dyo chhen is protected using the metal grill. Question may arise is this the right method of conservation?
Use of metal grill for safety

Before

After
4. Bishnu Kunda

This place has gone under renovation work in 2071 BS by the local community. From the local community and Bhajan Mandal has been formed which reside in the same place these days. Since this place lies outside the core area, people did not pay proper attention to its maintenance as the result of which the place gets polluted and deteriorated.

But during the conservation process, the place has gone through various changes which seems that the regeneration of this place was done for beautification rather than for conservation.

- Addition of Shiva Linga and Idols of Gods and Goddess which has enhance the essence of the place but the place has lost its originality

- The railing with diyo has been replaced by the brick wall and steel railings.

- Historic chaitya has been removed from pond to the glass box for its preservation

- Paints have been applied to its surface so it has lost its originality give new appearance.

Only the exterior of the pond has been brick faced whereas the interior walls has been plastered with cement

Addition of modern Pati and Bhajan Ghar which is not harmonious to the traditional appearance of the Pond
**Layaku Taleju**

With time the function of the place has been changed from religious to residential which is also one of the degrees of conservation. But this may affect the perception and emotional value of local people. Similarly, the wall around the well has been removed and covered with concrete slab and hand pump has been installed which is not harmonious to the traditional appearance of the Layaku area. Also the open space of Layaku Taleju has been using as the store or warehouse after the Gorkha Earthquake 2015 which does not give pleasant view and also create disturbance to the perform various religious activities.

Wooden members of dismantled residences and Sattal, reinforcement bar for the construction has been stored in the Layaku premises

Traditional well has been covered with concrete slab and hand pump has been installed which is directly visible from outside.

Part of Layaku which has been destroyed by Gorkha earthquake is left as it is which makes it more vulnerable for further degradation

Destroyed building has been covered with CGI roof for temporary protection of building

The open ground floor of this building has been used as the storage for building materials of the same building

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**6. Water Spouts**
Use of modern materials like cement over walls and floors, use of concrete blocks etc. does not give pleasant appearance to the water spout area.

Placement of modern water reservoir and pipeline gives unpleasing environment to the water spout area.

No proper drainage is provided or maintained as a result of which the water retains in the same place. This pollutes the spout area and its surrounding as well.

INTANGIBLE HERITAGES

Analysis on Guthi System

We know that the Guthi is the traditional social institution that caters for the performance of various festivals, feasts and socio-cultural activities. Many such Guthi still exist here in Nagadesh but their role is limited to the celebration of the festivals every year. The government support for the Guthi is very nominal for the performance of the various jatras and poojas that are to be conducted within Nagadesh. The main Taleju Guthi here in Nagadesh receives only 3 pathi of rice from the government now-a-days. The Guthi had the agreement with the then government back in 2007 B.S. Poush 3, to provide all the resources and financial support for the celebration of all the festivals related to Taleju Guthi and in return, the land owned by the Guthi was transferred to the government. The agreed support from the government then was Rice (53 Muri, 11 Pathi, 7 Mana, 2 Muthi), Wheat (4 Muri, 17 Pathi, 6 Mana, 6 Muthi), Maize (7 Pathi, 2 Mana), Hen's eggs: 22, and Monetary support of Rs.59.60 then in 2007. With this amount of resources and money, the continuation of the festivals of the Guthi is impossible.
The government should identify the Taleju Guthi as important part of the intangible heritage of Nagadesh and provide financial support as per the worth of the land, that the government had agreed upon to make the payments as of now. The financial support and the resources provided has to be revised and made available without any hesitation and help conduct the jatras and pooja of Taleju Guthi.

Many of the Guthi members (32-33) have already left the Guthi due to unaffordable expenses during the festivities and only 5 members are remaining in the Taleju Guthi. The members are also not active for the performance of their festivities as they used to celebrate in the past. The expenses have to borne by the members and monetary support is received from the local people which alone cannot afford to continue the celebration for future.

Analysis on Jatra and Traditional Dance

Siddhi Ganesh Jatra is one of the main festivals of Nagadesh celebrated during Bisket Jatra and Indra Jatra. This Jatra used to be a part of the Balkumari Jatra of Thimi where 32 chariots festival of Thimi, Nagadesh and Bode was celebrated at the premises of Balkumari Temple in Thimi, resembling the 33 Koti Gods. But with the unfortunate fight amongst the people of Thimi and Nagadesh back in 2052 B.S., the Siddhi Ganesh Chariot is not participated in the celebration of Sindure Jatra of Thimi.

The legend entails that when the chariot of Siddhi Ganesh of Nagadesh could not participate in Thimi in the past, the demon took over the seat of Siddhi Ganesh. The other gods and goddesses could not chase away the demon to hell so the Pradhans of Thimi asked Siddhi Ganesh to help them. Siddhi Ganesh agreed to help them and kicked the demon to hell. It is believed that all other Ganesh of Thimi were seating while Siddhi Ganesh was "Standing" during the Jatra celebration. The Pradhans of Balkumari used to come and invite the Ganesh thrice with the burning oil torches on 2nd of Baisakh.

Siddhi Ganesh Jatra begins on the last day of Chaitra and is celebrated for 3 days. On this very day, the Mohali Guthi does the painting in front of Siddhi Ganesh temple, before the God is brought from the Dyo Chen and the feasts is organized. As of tradition of Bisket Jatra, the Bishwa-Dhwaja (Halipata) is raised which is done by the Halipata Guthi. The Noll Guthi is responsible to tie the Noll of the chariot with the pooja and eating the Samya Baji. The Chhatra Guthi is responsible for the arrangement of the Chhatra required during the Jatra. The Chhatra is given to the Jatra and with the permission of the Pradhans of the Taleju Guthi, the Jatra is formally started.

On the first day of Baisakh, the 3 Pradhans of Nagadesh go to invite the Sindur Guthi thrice, with the Basuri Baaja. When the members of Sindur Guthi reaches the Siddhi Ganesh Temle, the offering of a special flower (Dhanicha Swan) is done to Siddhi Ganesh first and then to 4 Pradhans. Then the Pradhans give 15 packets of Sindur to the Sindhur Guthi, and with the offering of the Sindur to Siddhi Ganesh, the chariot procession begins. The Dyo Guthi has to take care of the Gods, and the jewelry as well as the maintenance and repair of the chariot and also celebrate the Jatra with various pooja and feasts for various Guthi members during the Siddhi Ganesh Jatra.
Siddhi Ganesh Jatra is not just the festival of Nagadesh but also important part of Bisket Jatra of Thimi. The procession of the Siddhi Ganesh chariot to Thimi is of great essence and should be understood by the people of both Nagadesh and Thimi, keeping their differences aside and celebrating the Jatra with joy and great enthusiasm.

**Analysis on Basuki Naag open space**

The Basuki Naag open space lies towards the southern edge of the town on the lower flat land. It is believed that Basuki Naag stayed there after Manjushree drained out Kathmandu valley from the Chovar. People here believe that offering of the pooja on this area can improve the health of the people. The small pond existed near the Basuki area, from where the people could take the fish by giving away the coins. If the extra fish are taken, it would turn into snake.

With the increasing urbanization and emergence of carpet industry nearby, the area is polluted and has shrunk to area of 4'x 9'. The sewer line runs adjacent to the Basuki area which has prevented the flooding of the area during monsoon. The demarcation of Basuki Naag area in the cadastral map is not present.

**SOCIO-ECONOMIC ASPECT**

Nagadesh has a very fertile land which has high potential for agriculture. However, with rapid population growth and urbanization, there is conversion of agricultural land into residential plot. Despite of cultivating vegetables, the local people are seen to be inclined towards building a house and renting as a source of income. It is very important to conserve the agricultural land. Likewise, the local people also rent their land to other people for farming due to lack of technological advancement, improved seeds, fertilizers, market facility, irrigation etc. Since, most of the people of old generations are illiterate, so they are unaware and not eager to learn the modern techniques in farming such as off season farming, better and good seed production, better result from organic manure use etc. that could increase their agricultural production. However, nowadays people have knowledge on using different modern techniques to ease the agricultural works and increase the output.

Dyochhen area is the main vegetable market area. Garcha Tole has unmanaged open space, which is used for parking vehicles such as bus, car etc. These areas are used for the vegetable market as there is facility of transportation as well as space for parking facility. But, due to lack of proper planning and vision, the space has conflict among the people and the parked vehicles.
Another possible way of improving economy of Nagadesh is by promotion of tourism for which traditional ambience is necessarily to be preserved. Lachi tole is an active area due to presence of Siddhi Ganesh Temple. Every morning, people come to this area for worship. The patis and sattals around the temple are used as place for bhajans and social interaction. This area has a high potential for tourism. Similarly, Twaga area is the main jatra route. Similarly Mahakhel area is a large open area with a pati, Buddha bihar and greenery. In Nagadesh, there is no place for accommodation for tourists. So, provision of home stay will also give tourists to look at the daily activities and lifestyles of the local people closely.

**LANDUSE**

Due to the lack of proper land use zoning, the urbanization has taken place in its own way in Nagadesh area. The operation of Sanothimi – Nagadesh- Bode road connecting to mulpani and pepsi cola has resulted a considerable landuse transformation. Land fragmentation has taken place and buildings constructed in the plots haphazardly. This haphazard development has already happened and cannot be altered. So, the proposed landuse has to be prepared considering this very fact in consciousness.

**CONSERVATION PROPOSALS**

**Need for conservation in Nagadesh**

Nagadesh is a traditional city but seems to have been neglected and thus culture and religion is found to be deteriorating there. People in Nagadesh are found to lack knowledge about the right techniques of traditional construction and cultural values. Various intangible heritages have been deteriorating and knowledge is losing. Due to lack of proper control, buildings are developing haphazardly and there is also increase in urban sprawl. This also resulted in unmanaged and unhealthy settlement. People are unaware about the essence of traditional art and architecture.
Some dances are on the verge of extinction due to lack of trained people. So, the art, architecture, the building typologies, activities needs to be protected as whole area is a living heritage of Nepal. Thus, conservation is needed in Nagadesh such that it would not only be conserved but also passed on to the future generations.

Nagadesh is very rich in numerous aspects. It is rich architecturally and is very famous in terms of agricultural production as well. Apart from this, the major important places in NAGADESH are Garcha area, Dyochhen (Nyaga), Lacchhi tole, Pukushi tole, Twaga area and Mahakhel area. The significance which each area holds has made Nagadesh rich as a whole.

The important areas are:-

- Garcha tole (Main entry point/ welcoming area)
- Nyaga (dyochhen area, main market place)
- Lachhi tole (siddhi ganesh temple, pati complex)
- Pukushi (pond area)
- Mahakhel area (open ground space, area for feast and festivals)
- Twaga (main jatra route)

VISION:

The major visions of our conservation work are based on the following basic things:

- HERITAGE CONSERVATION
- AGRICULTURAL LAND CONSERVATION
- TOURISM DEVELOPMENT

PROPOSAL ON PHYSICAL ASPECTS

Proposal on Road and streets

- The primary roads should be at least 6m wide with the provision of storm water drains along the sides of the road.
- The road leading to Dyo Chen from the Bahakha Bazzar should be stone paved.
- The galli behind the Pukushi Pokhari should be upgraded and brick paved with proper steps and ramps.
- The internal streets of Nagadesh should be pedestrianized with the provision to use the peripheral roads for services.
- The parking space should be allocated for the tourists and the local people at entrance from Bahakha Bazzar and the Pacha Nani area.
• The hierarchy of roads within the town should be well defined and proper maintenance should be done.
• Provision of dustbins for the collection of wastes along the streets.
• The proper signage of the place and brief description should be kept at the nodes within the town.
• The hoarding boards and posters on the historical monuments and traditional buildings should be prohibited.
• The solar lights should be installed at the nodes. The position of the electric poles should be replaced at the edges of the streets. The electric cables should be properly managed which will not disturb the visual character of the monuments and traditional buildings.

Proposal on Transportation

The existing bus park, which is located near the entrance will be maintained and upgraded. This bus park will serve the parking need of the school vehicles, buses, loading vans and other vehicles. The parking of vehicles will be prohibited on the streets and other open spaces.

Proposal on Water Supply

It is important to provide safe, reliable and affordable water supply to every household. The wells should be repaired and the water spouts should be renovated. Public awareness programs should be raised for the maintenance and conservation of water sources like wells, water spouts, etc.

Proposal on Waste Management

The waste collection site should be managed for clean and healthy surrounding. Dustbins should be provided on road side and public spaces. Also, separate dustbins should be provided for degradable and non-degradable waste should also be provided. Awareness campaign and program should be held on 3R's and segregation of solid waste. Likewise, regular cleanliness programme should also be carried out with the participation of local peoples. The degradable waste should be used as compost fertilizers which can be used to improve agricultural production.

Proposal on Drainage
Well planned drainage network will help to maintain healthy environment and thus improve the life standard of people. Different awareness campaign and trainings should be carried out to make people attentive about the importance of drainage system in maintaining a healthy area. Likewise, regular maintenance of the drainage network should be carried out.

**Proposal on Electricity**

The electric poles as well as wires are unmanaged and hence need to be managed. All the modern appliances such as solar panels, antennas should be hidden. The electric poles should be relocated so as not to obstruct the visual quality.

**Proposal on Monuments**

1. **Siddhi Ganesh temple**

The temple is to be cleaned and maintained regularly. The iron bars and railings of the temple are to be replaced with wooden bars and lattice. Distinction between the new and old materials is to be clearly visible. The foundation of this temple is weak, so it proposed to be consolidated.

Proposed Elevations
2. Pond at lachhi tole

The cemented walls of the pond is proposed to be replaced by traditional brick and the pond is to be recharged with fresh water. The houses façade around the pond area are to be planned in traditional newari architectural form with ground floor used for adaptive purpose like cafes and shops and outdoor seating giving pleasant view of the pond area and temple complex as a whole. Plantation is to be encouraged.
3. Siddhi Ganesh Dyo Chhen

The iron collapsible gate of dyo chhen is proposed to be replaced by wooden doors and the dyo chhen is to be cleaned time to time to prevent it from further deterioration. The metal grill protecting the window is proposed to be removed.
4. Bishnu Kunda

- The pond should be brick faced not only in exterior but also in interior
- The modern bhajan ghar should be made brick faced with sloped roof and wooden post which not only resemble the traditional architecture of the town but also harmonize with the architecture of the pond.
- The proposed Sattal should follow traditional architecture and technique during construction under the supervision of experienced people.
- The historic chaitya should be placed in its original location (at the center of the pond) rather than inside the box with its natural color which gives its historic evidence.
- People should be aware about the proper maintenance and cleanliness of the pond and its premises.

5. Layaku Taleju

- The present use of Layaku Taleju as residence of priest should be temporary to retain its functional as well as religious value.
- The open space is important during different jatras and festivals so it should be maintained and cleaned regularly and should not be used as storage
- The destroyed part of the Layaku should be reconstructed as soon as possible to protect it from further degradation.
- The well has historic importance so the concrete cover should be removed and well should be provided with brick wall around. Also the hand pump should be installed (if it is necessary) in such a way that it is not visible from outside

6. Water Spouts

- The cement plaster and concrete blocks should be replaced with brick wall and brick paving which gives traditional resemblance to the core city.
- Modern water reservoir and pipelines should be placed in such a way that it is not visible.
- Drainage should be maintained and water spout area should be cleaned from algae and other vegetation.

Proposal on Streetscape

Bahakha Bazaar

For short term conservation proceedings, the settlement can be added with a demarcation of entry gate with a traditional facade. Different awareness programs can be organized to maintain the old and traditional buildings. The houses can be cleaned, painted so as to sustain till the long term conservation process is initiated.
Proposed Streetscape of Bahakha Bazzar (Long - Term)

The Bahakha Bazzar lane can be maintained permanently with the strategy of a long-term vision for 20-25 years.

Some of the major long term visions for the street are:

- Pitched Jhingati roof
- Floor height - 2.5m
- Three Floored house, i.e 10.5m
- Lintel height- 2m, sill height- 0.6m
- Wooden doors and windows
- Brick facade
- Projection, balcony only from 2\textsuperscript{nd} floor.
- Plinth level- 0.3m
- Entry gate for demarcation

Every building with the same footprint and property line can be applied
The above plan shows the proposed design for different spaces in the Garcha tole. At first, the open space which consists of the Dhunge-dhara need to be revitalized by providing an open park in which public can roam freely and also can be used during the time of emergence. A parking space including provision for approximately 100 bikes, 30 cars and 10 vans is provided which is located near to the entry point and caters the tourists and the people living in Nagadesh. This also controls all the haphazard vehicular access in the settlement. A ticket office is also provided for the security and maintenance of the parking.

A dabali is also provided which would be a socially active open space. It has a raised platform and also seating spaces. Different events like- awareness programs, jatra display, etc can be done in the dabali.
Nyaga/Dyochhen Area

Since the buildings near dyochhen in existing condition, are being modernized this is contrasting to the architecture of dyo chhen and thus dominates the significance of dyochhen. So as a conservation strategy, we have proposed to maintain the following environment and guidelines around dyochhen such that traditional setting is maintained. Strong bye laws should be followed to maintain the environment. The guidelines are as follows:-

- Slope roof
- Jhingati tiles
- Brick facade
- Wooden doors and windows
- Plinth=0.3m
- No shutters; instead traditional wooden shop doors
- Floor height= 2.5m
- Three storeys

Use of sajhyas and balconies is proposed since it is one of the major jatra routes. These provide the users with the vision to all kinds of jatras and festivals and market activities as well. Similarly to facilitate the morning agricultural market, certain platforms shall be raised of bricks and stones which can be used as displaying platforms for vegetables and seating during daytime as well.

Pukhusi Area

Since pukhusi area is the main open area and almost every house is seen in modern, it has degraded the view of the area. Thus the stretch elevations are proposed to maintain traditional façade and also respect Siddhi ganesh temple.

Brick facades and height control should be maintained. Since sudden change is not possible, short term and long term elevations have been proposed. A short term proposal is focused on
brick facades and traditional windows whereas long term proposals include use of slope roofs and height control giving a complete traditional setting.

Mahakhel

The open space is in verge of being left unused. Hence, it is planned to utilize this open space as a recreation area. This open space shall be converted into a well planned recreation area with plantation of trees and provision of seating. It will increase the social interaction among the people in the community and outside community as well. This shall act as a breathing space for the locals as well as visitors.
PROPOSAL ON SOCIO-CULTURAL ASPECTS

Proposal on Guthi System

The following are the proposals for the preservation of Guthi system in Nagadesh:

- The local government should provide fund for the performance of the festivals, cultural activities in Nagadesh.
- The younger generation should be encouraged to participate in the Guthi system and their works for the continuation of the various festivals here in Nagadesh.
- The governing body should identify the land owned by the Guthi with the assistance of the Guthi Sansthan and prevent the encroachment of the land. These lands can be utilized for their income source like leasing out the land for schools (For example: Lord Buddha School leased on the land owned by Siddhi Ganesh Guthi), agriculture.
- As the Guthi is mostly active during the festivals and dormant on other days, we can develop the social co-operative based on the local community and help on investment on various sectors increasing the income of the Guthi. The traditional function of the Guthi has to be flexible enough to sustain itself too, rather than being solely dependent on donation of local people and government to celebrate the festivals and cultural activities.

Proposal on Jatra and Traditional Dance

- The Siddhi Ganesh Jatra chariot procession in Thimi should be revived, forgetting the fights of the past and respect the traditional culture of our ancestors.
- The Chariot of Bode, Tikani and Saraswotikhel should also be involved in the Sindure Jatra of Thimi. The lonely celebration of the separate Jatra loses the historical importance
and might lose to prevail in the future so the 32 chariots must be celebrated together in Thimi with respect to each other and peacefully, sharing happiness and love.

- The decorative lights installed on the Gajur of the chariot must be removed, discouraging the negative intervention on the traditional cultural heritages.
- The pavements of the Jatra route must be maintained with brick surfaces along the core area of the settlement. The damaged and torn out brick surfaces of the route must be replaced with proper drain for storm water along the sides of the route.
- The Pokhari of Pukushi must be replenished with water for the celebration of "Buffalo Knee" Jatra during the Astami and Dashami of Dashain. The sanitation of the pokhari must be done with the participation of community members and managed by the Taleju Guthi.
- The circular brick pattern at the node of Layaku and Baha Nani has cultural as well as spiritual importance. The Khadga Jatra (Kuvindo Katney Jatra) is celebrated by the procession along the Jatra route within Nagadesh and then the Kuvindo is placed on the circular brick pattern place of the God, and is sacrificed. It is believed that one who eats the fruit of sacrificed Kuvindo first will have "son". It also has spiritual importance that the offerings placed on the 7th day after the demise of the family member will lead the departed soul to rest in peace. As this place has both cultural and spiritual importance, the God's place has to be preserved from the deterioration due to the vehicular traffic and the storage of building construction materials.
- The Mahakali Naach and Bhairav Naach were revived after 7 years of gap due to financial crisis for performing the dance and the feasts. The traditional dances are performed to keep way the evil and natural disasters. The Nagadesh Cultural Pucha has collected about Rs. 6.5 lakhs which can conduct Mahakali Naach for a year. Bhairav Naach is tantric dance and requires proper training and devotion of the participants of the dance. The Bhairav dance guru is now 78 years of age and might not be able to continue to teach the dance in future days. The young participants should learn the Naach with devotion & precision to continue the traditional dance of Nagadesh.
- Currently, the training of the traditional dances starts after Ghantakarna at the rooms which are made available by the local people and the pooja are also performed there. The training for the traditional dance and Baaja should be provided for the young generation. The building of Taleju Guthi can be used for the space to practice the dance.
- The traditional masks of Bhairav Naach are decorated with the Led lights, which is not preferable and to maintain the authenticity of the traditional masks, the decorative lights must be removed from the masks.
- The government, local authority and Department of Archeology should coordinate and provide financial assistance and technical support wherever necessary to conduct the traditional dances like Mahakali Naach, Beetal Naach, Bhairav Naach and Pulukishi Jatra of Nagadesh. The cultural fund should be established to generate the fund, invest the fund
in income generation activities and use the available fund to conduct the training, traditional Naach and feasts for the participants.

- The provision of incentives for the participants must be allocated and provide them with health insurance to encourage them to continue the Naach in future and learn with great devotion.
- The publication of important intangible cultural heritages of Nagadesh can be done to make the locals as well as tourist aware about the various jatras, naach, baaja and traditional songs/hymns. The publication can be done either in bulletins, newspapers, articles and even videographic documentary and made them available in public library, tourist information centre and the monument zones of Kathmandu valley.
- Retain the sense of place by conserving the built environment and open spaces where these jatras and traditional dances are celebrated and performed, by the effective implementation of the proposed building bye-laws.

Proposal on Basuki Naag open space

- Department of Archeology with the coordination of Survey department should identify the historical area of Basuki Naag and the pond and allocate on the map.
- The excavation of the pond should be done and pond should be reconstructed.
- DOA should provide sufficient funds for the land acquisition nearby the area and assist for the construction of the pond and the pati.
- The local people should cooperate with governing body with the contribution as per their capacity (land, labour, materials) to develop and conserve the Basuki Naag area. The area can be developed as historical as well as spiritual landmark.

PROPOSAL ON SOCIO-ECONOMIC ASPECTS

From the analysis it is clear that agriculture is the main source of income generation. As the economy of Nagadesh is based on agriculture, so improvement of agriculture is an important dimension. Different facilities such as easy availability of improved seeds, quality fertilizers, improved irrigation system, onsite selling market are the key factors to keep existing agro-based economy intact. A market center should be provided in the Garcha Tole. A compost plant should also be established so as to reuse the organic waste generated in the market center as manure. Likewise, the market also demands a cold storage for the preservation of the perishable agricultural products near the market center. The agricultural training institute should also be established.
Since, the Mahakhel area acts as a space for leisure and is highly active during morning and evening time, it can be the best place for tourist attraction, a picnic spot providing views to the natural scenic beauty, if maintained and promoted properly. This open space can be used as a recreation area with the provision of seating.

The ground floors can be used for adaptive purposes like café, restaurants with outdoor seating. Likewise, some of the ground floors can also be used as galleries showcasing the important cultural elements of Mahakali naach. These galleries, cafes, homestay will not only help to attract tourists, but also act as a source of economy to the residents which will upgrade their living standard of the residents as a whole.

**PROPOSED LAND USE**

Landuse is proposed in terms of Core area, agriculture area, commercial area and residential area.

The existing core area is proposed as core area and the respective bye laws are prepared for this area.

The area along the Sanothimi – Thimi road, Thimi Chowk – Bode road and Sanothimi – Nagadesh – Bode road are already developed commercially. So, considering this fact these are proposed commercial zone.
The lowland area towards the southern, western and eastern part of the Nagadesh core area are comparatively less intervened and can be protected as agriculture zone which plays an important role in the food sustainability for nagadesh area. So, these area are proposed agricultural zone and bye laws prepared accordingly.

Rests of the area are in a process of transformation to the residential zone or partially being transformed. So, these areas are proposed for residential development and the specific bye laws are prepared and proposed.

While making the proposed land uses and bye laws, the density can be controlled through minimum plot size, GCR and FAR.

PROPOSED BYELAWS

Nagadesh is a traditional settlement in the Madhyapur Thimi Municipality, Nepal. Ward number 7 of the municipality is covered by this traditional settlement and area has high traditional importance. To conserve these traditional tangible and intangible aspects of the area, following Bye-Laws are proposed:

1. The Nagadesh is the territory which covers the ward no 4, 5 and 6 in Madhyapur Thimi Municipality, Bhaktapur District, Nepal. These three wards are treated as “Conservation Zone” for the application of these bye-laws and hence apply to the same area.
2. The Conservation Zone consists of the four different Zones with the boundaries as mentioned in the Map in the appendix. Namely; Traditional Core Area, Residential Area, Commercial Area and Open Green Area.
3. Each conservation area is distinguished on the basis of its use value in coherence with the historical importance considering the natural modern development tendency. These are:

   ➢ **Traditional Core Area:** This area consists of the traditional residential, commercial, institutional, cultural and religious components in the form of structure or use practice along with the streets paved or unpaved. Minimum interventions on those components which are against this conservation bye-laws shall be carried out toward the historical identity of the area. The detail guidance for the area are listed as follows:

   i. The **Nagadesh Conservation Unit** at **Nagadesh Conservation Zone** shall be established under the Madhaypur Thimi Municipalty, which shall act as the legal authority to regulate and implement this bye-laws and guidelines prepared under this bye-laws.

   ii. Construction of a new building in this area should follow the traditional Newari architecture. The consultation and regulation regarding the traditional Newari style shall be provided from the **Nagadesh Conservation Unit**.
iii. In case of already built buildings in this area, which do not have followed traditional Newari architecture style, the minimum intervention shall be done voluntarily by the owner of the building to change it to the Newari architecture style under guidance of Nagadesh Conservation Unit.

iv. As a reward to the owner under the article (iii), the Zero Interest Loan for 10 years for initial 5 years immediately after the implication of this bye laws, shall be provided to the owner to establish and operate the commercial, handicraft and other appropriate tourism attracting business activity in the traditional core area on at least the Ground Floor. Free consultation, 25% subsidy on construction materials shall be provided.

v. The following Ground Coverage, Building Story Shall be adopted:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Type of Building</th>
<th>Ground Coverage</th>
<th>Max. building Height</th>
<th>Floor Height</th>
<th>Building Story</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>New Buildings to be constructed or after demolish existing building</td>
<td>100%</td>
<td>10.9 m</td>
<td>2.70 m</td>
<td>4</td>
</tr>
</tbody>
</table>

vi. New building to be constructed in the area shall not exceed plinth level more than 0.3 m from road level.

vii. Balconies and cantilever covering any part of the public space like over road is not permitted.

➢ Residential Area: The residential area shall be developed as livable and comfortable place with lower controlled density.

i. The GCR, Building Height, FAR are provided as the list below in the residential area:

<table>
<thead>
<tr>
<th>S.N</th>
<th>Building Types</th>
<th>Land Area</th>
<th>GCR</th>
<th>FAR</th>
<th>Building Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Residential</td>
<td>Min 6 anna to 1 R</td>
<td>60%</td>
<td>1.75</td>
<td>11.4m</td>
</tr>
<tr>
<td>2.</td>
<td>Residential</td>
<td>More than 1 R</td>
<td>40%</td>
<td>1.50</td>
<td></td>
</tr>
</tbody>
</table>

ii. The road widths for the residential area shall be min. 20 ft.

iii. The maximum height of the building along with the parapet should be 11.4m

iv. For construction of residential building ROW and setback 1.5m should be maintained.

v. Building should be not more than 1:3 in the shape for earthquake perspective.

vi. The cantilever projection should not be more than 1m. If necessary the structural analysis is mandatory.
vii. Minimum lot size for the residence construction purpose should not be less than 6 anna.

➢ **Commercial Area:**
  i. Minimum parking area should be 25% of the plot and 10% extra for green space to be maintained.
  ii. The GCR should be not more than 60% and FAR 2.5 to be maintained maximum.

➢ **Green Area:**
  i. The provision for minimum 25% of the land should be green as to absorb the water to the ground.
  ii. The minimum 2 trees must be planted to get the construction completion certificate.
  iii. For group housing minimum 30% open space is to be maintained. Of which minimum 20% to be water absorbent green space. In the open space the number of trees to be maintained equal or more to the number of houses in the particular group.

The implication of the Bye-Laws shall be carried out by Nagadesh Conservation Unit formed under Madhyapur Thimi Municipality in Nagadesh. The bye laws come into action immediate after it is passed from the Municipality.

**INSTITUTIONAL FRAMEWORK**

**Conservation Management Plan**

Conservation Management Plan is an important tool in case of conservation. According to Dr. James Kerr, Conservation Management Plan is a document which sets out what is significant in a place and, consequently, what policies are appropriate to enable that significance to be retained in its future use and development. The plan is prepared for three major aspects in our case: built space, open space and intangible heritages.

**Built Space**

In case of built space, two stakeholders are identified: owner or user and local authority. The main responsibility of an owner is to maintain the building regularly. Lack of maintenance reduces the life of the building, so, inspection should also be done in certain period of time to make sure that the structure is safe. Similarly, building bylaws and other regulations must be followed properly by the owner. The owner may not be the user of the building in all cases, for example: if the building is rented or is used for commercial purpose such as hotels. In such cases, the user must also be aware to use the building proper and maintain it regularly.
The local authority includes Ward Office and Municipality. The main role of such authorities in case of built spaces is to regulate the bylaws properly. Proper inspection should be done so that the traditional ambience of the town is intact. Periodic maintenance should also be done for old and traditional public buildings by the local body itself. Similarly, conservation proposals should be prepared. Incentives can be provided to those who maintain the traditional characteristics of the buildings and those who do not follow the bylaws should be punished.
In case of open space, the stakeholders are user and community groups. The user should be aware about the importance of open spaces so that users do not encroach them. Private courtyards can be maintained by the owners themselves, but for public open spaces voluntary donation by the users can be very helpful in the maintenance work. The spaces should be used appropriately as per the need and time and should be maintained regularly.

The community groups are guthis, youth clubs, children clubs, women’s group etc. Maintenance programs by such groups can be very effective in case of open spaces. It also helps in raising awareness regarding the importance of open spaces in local community. Similarly, voluntary donation and inspection can be done by the community groups.

**Intangible Heritages**

Apart from built and open spaces, conservation plan of intangible heritages is also equally important. Intangible heritages include festivals, jatra, language, rituals etc. The stakeholders in case of intangible heritages are users, community groups and government authorities. The user should be aware about the importance of such heritages and should continue the traditions. The festivals that are in verge of extinction can be revived if the users themselves are aware. Voluntary donations by the interested users can also revive those traditions as most of them are disappearing because of the bad financial conditions. Donation by
Community groups can also be helpful. Similarly, such groups can also conduct training and awareness programs related to traditional musical instruments, dance, language etc. Concerned guthis can publish documents regarding the festivals and rituals conducted in the area. The most important responsibility of community groups is to co-ordinate with the local and central authorities regarding the conservation of heritages in terms of awareness raising, financial and technical support. The government authorities include Ward Office, Municipality, Department of Archeology and Ministry of Culture, Tourism and Civil Aviation. The major role of such offices in case of conservation can be financial assistance to the local community. Similarly, incentives can be provided to the people who are engaged in promoting and preserving such heritages such as people involved in jatra. Similarly, documentation of festivals and jatras should also be done by government authorities.

Management Plan for Intangible Heritages
<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TARGETED GROUP</th>
<th>MANAGEMENT TEAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Café/ Restaurant</td>
<td>Local people and tourists</td>
<td>Restaurant owner</td>
</tr>
<tr>
<td>Gallery</td>
<td>Local people, tourists, students and research personnel</td>
<td>Community groups</td>
</tr>
<tr>
<td>Home Stay</td>
<td>Tourists</td>
<td>Owner/ Community groups</td>
</tr>
<tr>
<td>Vegetable Market</td>
<td>Local people, consumers from neighboring towns and retailers</td>
<td>Vegetable Association Traders</td>
</tr>
<tr>
<td>Information Center</td>
<td>Tourists</td>
<td>Community groups</td>
</tr>
<tr>
<td>Cold Store</td>
<td>Farmers and vegetable sellers</td>
<td>Vegetable Association Traders</td>
</tr>
<tr>
<td>Bus Park</td>
<td>Local people, tourists, schools, vegetable sellers, public bus</td>
<td>Community groups</td>
</tr>
<tr>
<td>Park</td>
<td>Local people, tourists</td>
<td>Community groups</td>
</tr>
</tbody>
</table>

**CONCLUSION**

Hence from all the study and research, we have set certain goals and vision for the conservation of overall Nagadesh area. We have prepared certain rules and guidelines for the minimal interventions while conserving the settlement. The management plans and policies also help in systemic development and conservation work.

From the overall study and design phase, we have concluded that for any conservation work, a systematic process is a must. Before applying any intervention, it is very essential to know about the details of the site; social, cultural, physical, economic, infrastructure and all other related factors. The past trend of architecture and development determine what and how to conserve. The detailed study phase helps to evaluate the overall design phase.
From this report, we conclude that, necessary guidelines are made as per the significance of the area. As per that, proper intervention is made which can uplift the essence of the place in short and long term basis. Hence, it helps in visualizing the degrees of conservation of old traditional town like Nagadesh.
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ANNEX
PROPOSED ROAD PAVEMENT