

Study of Social and Cultural Sustainability in Heritage Settlement – A case at Chapagaun

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Abstract

Historic settlements in Kathmandu Valley are the oldest settlement existing from the Licchavi and Malla era, which not only represents the 'Newari' townscape in the rural context fitting with the local way of life and topography but also possess architectural, aesthetical and symbolic values. Wise urban planning was existing from that time with proper layout of buildings, road networks, water bodies and open spaces concentric with the main temple. Places of cultural significance enrich people's lives, offering a deep and inspirational sense of connection to community and landscape. Rapid increase in population and accelerating influx of people to cities and town has threatened existing heritage and settlement structure. The communities with centuries old traditions, cultures and lifestyles are facing near irreversible cultural social and economic losses. In this regard, the main challenge is to balance development and heritage conservation in way that facilities sustainable development. The main purpose of this research is to know about sustainability status of the heritage settlement Chapagaun mainly focusing the sustainability parameter of social and culture and how the urbanization trend and mainly the extension of road affect in the social and cultural sustainability of case area. The research was carried in pragmatic paradigm and the information was gathered through qualitative method. For this method, data were collected through different reports, interview etc, then it was analyzed and recommendation and conclusion were generated.

Keywords

Heritage settlement, sustainable settlement, open spaces, bylaws, impact, streets, culture

1. Introduction

According to the amendment to the Settlement Development, Urban Planning and Building Construction Basic Standard-2017, any heritage settlement shall be no less than 100 years old with 50 or more households and historical structures like stupas, temples, open rest houses, wells, stone spouts and ponds. Such settlements should have a history of celebrating festivals of cultural importance, processions, regular performance of devotional songs. It has adopted a 12-point guiding principle for the development of heritage settlement while protecting and conserving the local land form, social norms and values and cultures. They include keeping the previous physical structures intact, maintaining the adjustment between buildings and open spaces, making the settlement more resilient to the impact of disasters without distorting their originality, maintaining balance between natural and artificial

environment, and giving continuity to concrete and abstract arts, cultures and style.[1]

The concept of "social sustainability" in this approach encompasses such topics as: social equity, livability, health equity, community development, social capital, social support, human rights, labor rights, place making, social responsibility, social justice, cultural competence, community resilience, and human adaptation. Culture has always been important for the character of the cities, as have the civic and public institutions that sustain a lifestyle and provide an identity. Substantial evidence of the unique historical, urban civilization remains within the traditional settlements. in the Kathmandu Valley in Nepal; manifested in houses, palaces, temples, rest houses, open spaces, festivals, rituals, customs and cultural institutions.[2]

1.1 Introduction to Chapagaun

Chapagaun is a village development committee in Godawari Municipality in Lalitpur District in the Bagmati of central Nepal. It is a satellite Newari settlement of Kathmandu, constitutes the physical setting and socio-religious activities, which is linked by cultural practice in the form of daily ritual, celebration of various festivals, community's social norms including traditional social institution. Though the town had been sustained for the last many centuries, failure to continue such practice in socioeconomic modernization at present has resulted information of incompatible built form, decaying of community spaces, reduction in socialization and religious activities and increase in environmental pollution.

2. Problem Statement

Chapagaun represents one of the best examples of Newari settlements in rural context with unique built form and cultural practice. However, rapid growth in the surrounding vicinity, gradual shifting of socioeconomic activities, migration of original inhabitants to city centers and all have combined to transform the town which leads risk in social and cultural heritage. The younger generation of the place having less interest in heritage and cultural preservation and attracted toward western lifestyle is another issue toward cultural and social sustainability.

Another problem is extension of the main road which is existing in between the Chapagaun, which have important value for cultural and social activities. It is nearly sure that the resident building at both side of main road will be demolished in order to make road broad which will destroy the essence of heritage settlement. Similarly, after earthquake 2015, People develop the misconception that traditional material and architecture have low strength than that of modern technology hence they rejected them and follow the unsustainable and modern technology in building and construction.

3. Objectives

Main Objective

- To study about social and cultural sustainability of heritage settlement in Chapagaun in context of its expansion of population and road network.

Specific Objectives

- To study and analyze social and cultural characteristics of heritage settlement of Chapagaun
- To identify detail nature of socio-physical changes taking place in traditional streets and square
- To study the impacts of changes on its social and cultural sustainability

4. limitation

Only study of sustainability of heritage settlement is taken into account. Here, economical parameter needed for social sustainability is only taken into account. The study is be limited to the public open spaces like residential traditional building streets, open spaces like courtyards, neighborhood squares and public land easily accessible to everyone. The research is based on case studies from traditional settlement of Chapagaun area. Also intangible heritages that are connecting to the tangible heritage only is considered.

Also the study area is limited to the core heritage settlement of Chapagaun of ward no. 11, and in ward 11, PyangGaun is not included as study area.

5. Research Methodology

The research is focused on 'what' and 'how' hence it was carried in the pragmatic paradigm that are constructivist and post positivist. The study focused on what changes has been there in the public spaces through time, physical changes that can be observed and the changes in people's perception. The ontological perspective of this research is based on the data available through secondary sources and the realities constructed in society. And finally the findings have been drawn by the available data and people's perception. The epistemological process of gathering information is qualitative. Available reports on open space have been studied and analyzed based on population, distance from the residents and other parameters and its accessibility or usability be further analyzed with social perspective through key interviews with local community user groups. Therefore, study is made in phenomenological approach.

5.1 Data collection tools

5.1.1 Primary data collection

While getting acquaintance of the place and issues from literature review site visits was done to get photographs, to observe different sidewalk activities, behaviors, and environmental conditions. During site visits, initially visual survey of current building are done uses. then further site visits were done to discover functions in specific time of a day. At that time, formal and informal survey and inquiry has been done with local people and stakeholders and gained many information about the case area and issues.

Interview : Interviews are guided conversation in which questions are fluid rather than rigid one. They are verbal reports hence they are susceptible of some shortcomings such as biased remark, poor recall, inaccurate articulation etc. To get valid information; chairman, former ward chairman, local residents and some governmental authorities were interviewed. Interview questions were basically related to development and culture, impact of road extension in the communities and concerned question about social and cultural sustainability at Chapagaun.

5.1.2 Secondary data collection

Secondary Analysis entails the analysis of already collected data in the form of documentations, reports and others that has been collected by governmental and non-governmental organizations like the DUDBC satellite maps from goggle and bing, DDC profile, municipality book and other resources.

5.2 Analysis

Data collected in fieldwork were analyzed to get the findings and results using different frameworks and analysis tools. To come with a result for these objectives different frameworks has been adopted as mentioned below:

5.2.1 Time series analysis

Transformation study is the study of state of something in temporal basis. Hence, it has adopted 'time series analysis' as a technique for documenting changes in certain period of time.[3] The term is popularly used in data analysis method in statistics, econometrics and many other disciplines of science.[4] 'A time series' is a sequence of data points, where variables are measured or recorded

typically at successive times spaced at time intervals. This method is further used in making a model to forecast future events based on known past events.

6. Literature review

Settlement is a space or container in which humans perform daily activities. A space can be defined as an area with a geographic limitation. The limitation of a space affected not only by the surrounding physical condition but also social and governmental system, which occurred everywhere.[5]

6.1 Historic settlements in Kathmandu Valley

"Heritage Settlements" is referred to the oldest settlements that started prior to the Kirata period and evolved over time in Lichchhavi and Malla era, which led to formation of medieval town centers predominantly inhabited by the indigenous population group of Newars of Hindu and/or Buddhist origins.[6] In Kathmandu valley, there are numerous historic settlements accompanied by rich variety of tangible and in tangible cultural heritages. There are about 53 historic Newari settlements within the Kathmandu Valley.[7] The towns of Kathmandu Valley have traditionally been built as compact settlements that encouraged walking and the use of public open space. However, in the recent years, rapid and unplanned growth has led to huge urban sprawl with limited public open space. Houses are clustered along the streets or around the courtyards. All the neighborhoods have community squares with public amenities. these elements of urban forms give both functional and aesthetic purposes such as the temples, Pati (public rest house), water well and Dhungedhara (stone water spouts), Stupa and Chaitya (Buddhist shrines) and Dabali (an elevated platform). After the entrance gate of the city, the city has clusters of housing with their neighbourhood squares and towards the centre, there is a large open space known as square which has a palace.

Table 1: elements of open spaces and their functions in heritage settlement

Types of Open spaces	Functions
Small Chowks (courtyards) surrounded by dwellings	Playgrounds for children Drying clothes, grains Fetching water
Bahal (Buddhist courtyards with shrines)	Social interaction, worshipping, safe play area for children
Nani (Buddhist courtyards without shrines)	Social interaction, safe play area for children
Main chowk (large square mostly near palace or in front of palace)	Events Announcements Important functions: city hall, law court, police station, post office
Streets	Also for daily activities, bathing kids, drying grains (during harvesting season) Also used for commercial activities (in recent years) Procession routes for chariots during festivals Connectivity
Khet (agricultural field)	Agriculture, farming
Ghats (river bank)	Cremation areas for Hindus Worshipping God

Table 2: open spaces and their historical function in heritage settlement

Elements of Open Spaces	In which Open space	Functions
Patis (covered area)	Along the street, along the houses	Communal building/public shelter for Games, music, gossip Instruction and business Resting space
Hiti (public fountain sunk in the ground)	Along the street	For fetching water
Garden wall, Pond or tank for water supply	Along the street, in smaller squares	Relaxation and beauty Fetching water
Dabali (elevated platform)	In the large squares	Cultural programs
Sattal (rest houses)		For resting, chatting
Stone spout, water well	In the courtyards, large squares	For fetching water
Lachhi (Squares)		Artistic work – pottery, carpet weaving, painting

6.2 Challenges of the traditional settlement of Kathmandu Valley

6.2.1 Change in the settlement pattern

Following the rapid urban growth, the Kathmandu Valley has significantly transformed over the past decades. This can be observed in both changing physical and social environment of the new urban areas. The current growth exhibits an unplanned development of urban sprawl in a sharp contrast with the traditional city cores. It resembles a radial growth, often referred to as an octopus growth, due to the expansion taking place in all directions from the city cores with the sprawling outer rings.[8]

6.2.2 Expansion of the city due to concentration of political and economic power

By the 80s and 90s, the urban growth of greater Kathmandu was taking place generally in a north-south direction. This was mainly due to the fact that much of the easily accessible land had already been consumed and the land bordering on the west was undulating and difficult to develop. Rapid urbanization in the valley has been guided by the following factors.

- Concentration of political and economic power resulting in employment opportunities and multiple activities
- Availability of urban basic services such as water, roads, electricity, and telephones
- Proximity to work areas such as administrative centers and industries
- Location of an international airport and tourist centers
- Push factors in rural areas such as natural calamities, unemployment, and social stigma [8]

6.3 Transformation of Traditional Building Stocks and Its Numerous Consequences

Rapid urbanization and increased socio-economic activities exerted tremendous pressure on the social fabric of the historic core of Kathmandu. These aspects were reinforced with social system of transferring parental assets equally to children including sentimental value on ancestor's property, transition from joint family to nuclear family system and poor economic level. The capacity and quality of infrastructure in the core area is decreasing due to its old age and lack of maintenance and upgradation. On

the other hand, there are tremendous changes in the building units irrespective of infrastructural capacity.[9]

6.3.1 Consequences on Cultural Aspect

Negative consequences of haphazard urban transformation in the historic core of Kathmandu is discussed here, which lie on three different aspects. First, though the street and open spaces are still intact, the transformation of buildings together with haphazard infill and encroachment of public spaces [courtyards and streets] in many ways have destroyed the earlier urban form and the balance between built up and open spaces. Significant reduction of cultural space and negligence of social artifacts have not only adversely affected the people's relaxation, socialization, communication and celebration of events at regular intervals but has also helped in the obliteration of memories of place. The cultural practices in the past were tied to the religious beliefs and faiths through the means of local festivals and celebration of rituals, commercialization of the open courts and the enclosing buildings. [9]

7. Findings

Like other Newari towns, Chapagaun is also situated on the highland and the surrounding lowlands belong to the local people which are used to be agriculture field of them. The ancient name of Chapagaun was 'Champapur'. In newar language, the place is popularly known as 'wade'.

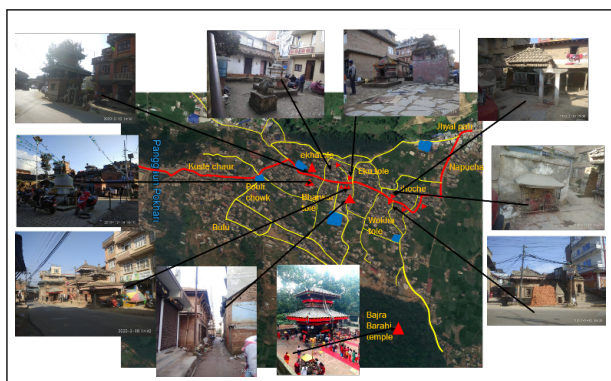


Figure 1: map of chapagaun

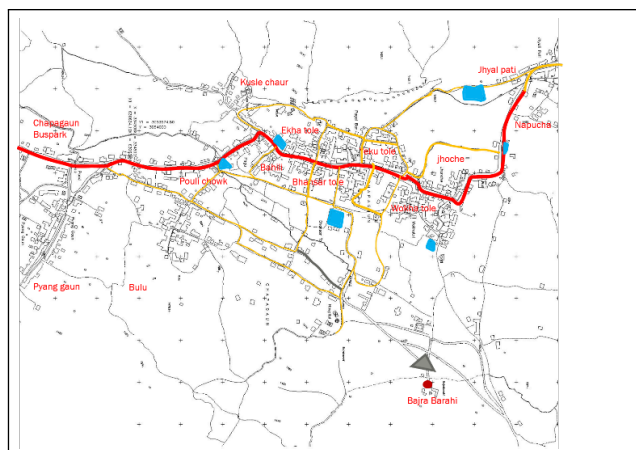


Figure 2: map of chapagaun

7.1 Characteristics of planned settlement of Chapagaun are:

- North south aligned central Major axis along which major public spaces, temple squares, jatra routes exist. Major temples such as Ganesh temple, Narayan temple. Krishna temple, Bhimsen temple, Bhairav temple lies in this axis.
- Other minor axis present leading to Bajrabarahi temple at eastern sides and to other toles from western side
- Bajrabarahi temple is the main shrine in Chapagaun
- It is a compact settlement with traditional Newari style buildings of three storeys. The agricultural land is at the periphery with good facility of irrigation (Nakkhu river)
- The settlement has been developed as the central market place for southern Lalitpur and commercial activities are take place in this place
- It contains different caste people distributed in the whole settlement like Deshar, Maharjan, Kuwar, Pujari, Bajracharya, Shakya, Shrestha etc.
- People are distributed according to caste and physical structure also present accordingly such as Buddhist stupa are there near to bajracharya and shakya settlement, Hindu temple are there near to the deshar and maharjan community and so on.
- The celebrated different kind of festivals such as Bajrabarahi jatra, Marasti jatra, Sithi nakha, Dashain, Ganesh jatra, Gai jatra etc.
- Besides these there were numbers of ponds near the six ancient entrance gates.

7.2 Development and heritage preservation risk

Development is the gradual process in any settlement for comfortability, and maintain the standard of living. The development process has both positive and negative impact. Similarly, as a development process, in Chapagaun, there is the project of extension of main road upto 22m. Due to extension of road, the place will be commercially more active. Flow of people will be increase, migration of people will happen, which may be risk in cultural heritages. There are many tangible heritages which lies at the main road sides such as rest houses, temples, chaityas, etc. many cultural activities such as jatra and festivals, life events like marriage ceremony, bratabanda, etc that happen in road, it will hamper in these kind of activities. Some of the list of the heritages that will affect by the road extension is as follow.

Table 3: list of the heritages that will affect by the road extension

S.N.	Heritages	No.
1.	Ganesh temple	2
2.	Muni Ganesh temple	3
3.	Chandra Bhairav temple	
4.	Bodhi satwo stupa	
5.	Pancha Buddha chaitya	6
6.	Shiva linga	3
7.	Bhagawati idol	
8.	Narayan temple	
9.	Krishna temple	
10.	Ponds	
11.	More than 300 years old Jadu	2
12.	Water tank	5
13.	Swarakhutte pati and other pati	
14.	Radha Krishna idol	
15.	Tinmukhi brama idol of 6 th century	
16.	Char Narayan temple	
17.	Bhimsen temple	
18.	Chapagaun stone inscriptions	

7.3 Social value

The old town comprises of numerous silent features. The town form, street pattern and open space hierarchy, building components have different layer of socio-religious meaning. The open spaces and streets are not only visual setting but also are shared community space where multiple social as well as cultural activities are performed. A single courtyard, or an open space has diverse use value, jatras and other religious activities are performed there. Also, household activities such as utensils and clothes washing, grain drying, sun bathing is done in the same

place. These spaces hold key importance for social interactions. Children play, young hang out and the elderly rest and mingle with each other.

8. Analysis

8.1 Transformation of Built Spaces in the core

Chapagaun, which lies in the list of heritage settlement of the government of Nepal, needed to be developed properly in the traditional way as mentioned in the bylaws prepared by the DUDBC for heritage settlement for Kathmandu valley. But the reality is very different from what is thought. Not a single building inside the core area is constructed in the traditional design. While interviewing with the key local people, it seems like are not comfortable to continue to construct the traditional building. According to them, it looks good to other people, the space and material is not safe and earthquake resistant and the space do not fit with the current modern lifestyle. The reason behind transformation of built spaces may be as follow

8.1.1 Fear of Earthquake

During the earthquake 2015, the traditional buildings constructed in load bearing technology in brick and mud collapsed and took the lives of 6 people within Chapagaun itself but the new buildings constructed in RCC framed structure technology were not affected. This incident make people believe that only RCC load bearing structure is earthquake resistant not traditional technology and material. This created a psychological pressure to the locals to construct their buildings in the modern technology and design.

8.1.2 Lack of Bye Laws

Although there is separate building bylaw for the traditional heritage settlement, it is not followed for the traditional settlement Chapagaun. According to the one of Godawari municipality engineer Prayatna Mahat, they are not following specific bye laws for the heritage settlement. If the residence map follows the general byelaws like height 3.5 storey, and structural drawing requirement, they got approved to build house.

8.1.3 Social Issue

Due to the increase in the family size, people require comparative more space in order to accommodate the family members. So, they have to construct the buildings higher. As tall and modern buildings are a symbol of social prosperity in the core area, people prefer their buildings to be taller. Some people would prefer their buildings to be constructed in the exposed brickwork and with carved wooden doors and windows, but it would cost high. Due to this reason, the trend of architectural transformation is being continued in the core area. They could accept to construct their buildings with exposed brickworks and carved openings if the municipality would support them financially and get their building designs approved.

8.2 Threats to site's significance

At the time of increasing globalization, conservation of heritage and cultural diversity of any particular region or place has become an important challenge for government and people everywhere. Rapid increase in population and accelerating influx of people to the cities and town has threatened existing heritage and settlement structure. As a result, many cities has been transformed from concentrated and identifiable towns into amorphous urban areas. The historical urban areas and town, which embody the values of traditional urban cultures, are being threatened, physically degraded, damaged or even destroyed by impact of rapid urban development and poor governance. The communities with century old traditions, cultures, and lifestyle are facing irreversible cultural, social and economic losses. Chapagaun has its own history and has retained its tradition and culture however, the modern structure and uncontrolled urban growth has slowly engulfed this pretty town. The traditional architecture, infrastructure, water resources are slowly vanishing either displaced by modern means or due to in availability of skilled human resources. Building are built without planning. This is compacted further by growing socio-economic issue demanding greater financial and natural resources. The urban sprawl and demographic growth put pressure on aging and inadequate infrastructure and the environment. The pedestrian town is now added with vehicular movement. The motorbikes have been one of the major mode of transportation for individual households. Because of unavailability of managed

parking spaces, motorbikes have been parked haphazardly on the street and courtyard of the historic settlement that creates an unpleasant and inharmonious urban fabric. People are migrating from historic core to nearby area specifically for better opportunities. Migration is due to different push factor in historic core such as inadequacy of space, property division, uncomfortable old house, lack of financial source to renovate the buildings, pull factor such as better economic opportunities and more infrastructure facilities at new area. this has led heritage deterioration in Chapagaun.

8.3 Proposal of extension of road up to 22m

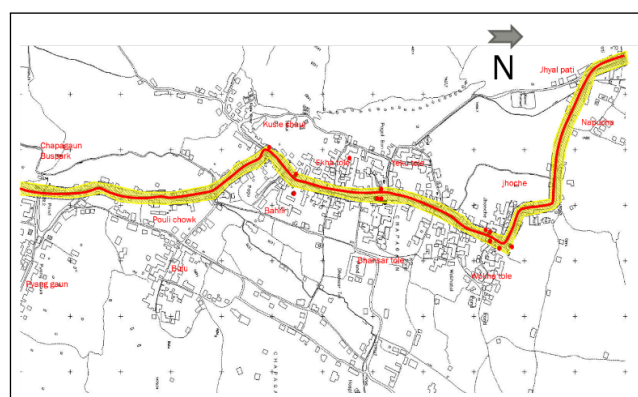


Figure 3: chapagaun map overlapping 22m offset road and cultural heritages

Road expansion along the Sunakothi and Chapagaun has become a major issue in the overall development of Chapagaun and the surrounding areas. There is a proposal that the main road, which is named as Kanti Lokpath is extended upto 22m, which will later develop as shortest way from Kathmandu valley to Hetauda. If the road is extended, all the houses at the side of roads need to be demolished. There are more than 17 physical tangible heritages that are existing at the side of road, which are in risk in their existence. Similarly, the main road contains the main public square of the Chapagaun, different intangible activities, like Jatras, festivals and other activities are performed in the road, from which, there may be risk in the social and cultural sustainability. While interviewing with ward no. 11 chairman of the Godawari municipality, it seems like it is sure that the road will be extended. All the old traditional houses have been damaged by earthquake 2015, which need to be reconstructed. But for the extension of road, the municipality has not given the permit to do reconstruction of the house. Those people who have

houses at the side of road have been compelled to be displaced to other place.

As to expansion of the street, distinctive individual has the diverse discernment. While met with nearby pioneer Bramananda Shrestha, he himself is the victim of street expansion and completely uprooted from the first house, yet he expansion ought to be done to develop Chapagaun. Yet, he additionally shows the worry about safeguarding physical heritages like temples and squares. As per his assessment, street need to broaden yet the physical heritages should have so elective like the temples can be resettle in new spot.

Simultaneously there is the gathering battle for challenge the augmentation of the street. They are worried about sparing the all social and social heritages. As indicated by them, because of expansion of street, the houses will have gone, yet in addition annihilate the general public. It will have lost the identity of Chapagaun town, it will hamper the social and cultural aspect. The temples and squares are character of place, pride of place yet it will evaporate with expansion of street. According to the information from municipality, about 75% of road extension victim are ready to take compensation, but remaining 25% are not ready and still doing the protest.

8.4 Possible impact due to extension of the road

8.4.1 Impact on tangible heritages

The term tangible heritage refers in general to all the material traces such as archaeological sites, historical monuments, artifacts, and objects that are significant to a community, a nation, or/and humanity. These elements show the history of existence of settlement. Due to proposal of road existence, the tangible heritage of Chapagaun like temples, chaityas, rest house, inscriptions, dabali etc. are in risk. These tangible heritages have emotional, sentimental and cultural link with the resident of the place which impact on the whole settlement setting.

8.4.2 Impact on intangible heritages

Due to road extension, many intangible heritages are getting hampered. Since the main square of the village, important temples and main jatra routes lies at the main road, it will definitely disturbed. When there will be extension of road, there will be extension of city, then commercial value will be increase, in consequence,

cultural value will be decreased. Beside these, there are many more cultural activities like Gaijatra, Madhav Narayan parikrama etc, which will also affect due to road extension. Not only the festivals and jatra, with temples and chaitya, there is religious relation. It is connected with the norms and belief of the people, it is connected with the history and different historical and religious stories, which will get affected and may risk. At the same time there is direct link between the daily ritual, worshiping with the tangible heritage which will get impacted due to the road extension.

8.4.3 Impact on social life

The social life of the settlement has been already impacted and transformed after development of the vehicular road. The heritage settlement used to be the cozy communal space with good social bonding. After development of the main vehicular road, the flow of vehicle has been increased. There is risk to cross from one side of road to another side for children and older people. And if there is road upto the 22m, there road intersect the community into the two parts. There will be difficult to link unless there is bridge. The social life is linked with temples, cultural and religion activities, which will be disturbed due to the road. The settlement used to have uniform pattern of social life, which reflect the traditional newar settlement. But with extension of road, other commercial activities will increase there, with increase in commercial activities 3, migration will be there, then uniform social type will have converted into heterogeneous type. This trend will lead to decrease in interest of conservation of heritages.

9. Discussion

Chapagaun is one of the heritage settlement of the Kathmandu Valley. Until now it has got the component of the heritage settlement. To preserve the tangible and intangible component of the heritage settlement, bylaws of the settlement bind it. There are certain issues that have been identified during site study regarding its social and cultural sustainability. From the study of existing situations and analysis, following elements and challenges have been identified.

9.1 Settlement

In case of settlement, it is historic, traditional settlement with character of Newari culture, art and

architecture. It shares the social linkage between the Chapagaun itself and also with the neighboring villages. But there is a difficulty in preserving traditional urban fabric of Chapagaun. Because of development pace, urbanization, urban sprawl as well as upcoming project of road extension, new development taking place around traditional settlement that do not harmonize with the traditional settlement pattern of Chapagaun.

9.2 Building and monuments

As a traditional architecture, there used to be building with Newari architecture of exposed bricks, carved wooden doors and windows and sloped tiled roof line and streetscape. It has religiously and culturally significant monuments including Bajrabarahi, Chandra Bhairav, Ganesh temple, Bhrama temples, Narayan temples, different chaityas, bahi and baha. It also contains centuries old water distribution, Jadu, which reflect civilized society in the earlier time. But the larger number monuments and traditional building have risk due to the upcoming project of road extension. These temples and monuments are identity and pride of the Chapagaun. Different people have different perspective regarding preservation of these structures from upcoming project. For eg. In context of Chandra bhairab temple, ganesh temple, there is conflict between two different ideas for preservation. some people given idea of re-establish the temple from original place to new spot while some people are in favor of preservation in same place.

9.3 Open spaces

Streets and squares make up the urban fabrics of the traditional town of the Chapagaun. There are numerous open spaces in forms of courtyard and streets. The open spaces provide visual setting along with community interaction for inclusive community interaction, socialization and cultural function as well as shelters in case of disaster. But there is encroachment of public spaces for private and commercial use. The open spaces are used for haphazard parking due to unavailability of designed parking space, ruining the traditional feel of open space.

9.4 Intangible heritages

It has its own jatras, music, festivals and routes along different streets and courtyard. It has culture and

traditions associated with festivals and ritual creates a social cohesion among the community. It has Guthi as the cultural inspiration. Loss of tangible heritages due to earthquake and possible road extension directly impact the customs and culture associated with the tangible heritage. There is decline of the intangible heritage because of disinterest of youth in preservation. Transfer of knowledge and practice regarding culture and heritage is insufficient for younger generation to participate in cultural activities. In context of intangible heritage, due increasing the commercial activities and value in Chapagaun, there will be decreasing in the cultural importance's and value. Challenges for the tangible heritages are.

Table 4: challenges in preservation of intangible heritages

Disinterest in youth	<ul style="list-style-type: none"> • Change in profession • Lack of personal and social life, busy in professional • Decrease in cultural belief in youth • Change in priorities
Risk in tangible heritage	<ul style="list-style-type: none"> • Due to proposed project of road extension upto 22m
Increase in commercial activities	<ul style="list-style-type: none"> • Increasing the vehicular movement • Migration of people in search of opportunities • Expansion in business area • Urban sprawl • Road expansion

9.5 Proposed road extension project

The proposed road extension project is good for development work. The project has plan to linked the road from Kathmandu valley to Hetauda as a part of Kanti lokpath. But in context of social and cultural sustainability, it is very much challenging. There are many examples of road extension project in Nepal near core settlement, it has impacted to the social and cultural life. For example, taking examples of Sanga-Banepa road extension, Nayabazar road extension, Maitighar mandala redevelopment project, it has impacted the social life very much. In case of Banepa, it was a traditional settlement, which has traditional lifestyle, but after development of wider road, commercial activities have increased. Due to wider road, there is less connection between one side of road to another side. Also it is the road which has cause maximum no. of road accidents, it has created the issue of social security. Due to wider road and

increase in commercial activities, in-migration will increase, which will result in urban sprawl. It will be cause of transforming the agricultural land to the concrete jungle. It is about the social sustainability. In context of the cultural sustainability, if there is homogeneous society, there will be common interest. From the above examples, impact that may happen due to the wider road in social and cultural sustainability.

Table 5: impacts due to road widening

Social impact	Cultural impact
<ul style="list-style-type: none"> • Social security • Commercialization • Decrease in social and community bonding • Urban sprawl • Risk of road accident • Pollution • Transforming agriculture land to concrete jungle • Demolition of houses • Loss of vernacular architecture. 	<ul style="list-style-type: none"> • Decrease in cultural interest and value • Risk in cultural important monument • Disturb in accessibility to cultural site and activities • Impact in daily social and cultural life • Difficulty in performing and continuing jatra and festivals

10. Conclusion and Recommendation

The Chapagaun is the historic town which is existed before centuries of years. It has its own history, and identity. It has unique features of tradition, culture and architecture. But now the society has been changed. The lifestyle and social priorities has been change. And due to development of vehicular route, the commercial activities of the place has been change, which is good in case of economic status, but risk in case of social and cultural sustainability. And in case of the project of the extension of the main road upto 22m, it impact directly in the social life, as mention above, there would be risk in social security, urban sprawl will increase, and there will be risk in social and cultural heritages in both tangible and intangible heritages. Though the road extension project has got two opposite opinion, looking through the prism of socio-cultural sustainability, the project is not favorable for Chapagaun. To minimize the impact, the proposed from road extension, the road project can be diverted to Nakkhu corridor or from Tikabhairab-Bungamati road. If the road is needed to

extend, at least the socially and culturally important structure should be listed and they need to preserve. The heritage is not just about the tangible and intangible heritage, but is about the lifestyle, living heritage, architecture and whole settlement. They need to preserve and for this, the commercial activities and commercialization of place need to be controlled. for this act, certain offset from the core settlement area need to define and declare the heritage settlement preservation zone. Due to change in lifestyle, profession and interest of the new generation people, it seems decline in intangible heritage because of disinterest of youth in preservation. Transfer of knowledge and practice regarding culture and heritage is insufficient for younger generation to participate in cultural activities. So different program should be organized to involve youth in social and cultural activities and proper fund should be released for these kind of activities.

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