

PULCHOWK CAMPUS

"Implications of change in Urban Landscape on the Quality of Life in the traditional town Harisiddhi"

By

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A THESIS

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076/MSUrP/015

CERTIFICATE OF THESIS APPROVAL

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ABSTRACT

Urbanization is a global phenomenon evolving problems including urban blight, gentrification, urban poverty, urban sprawl which results into delineation of built environment of its spatial extent, change in function, transformation of a town, which forces prior local residents into poorer and isolated environment with less choices and social networks. The problems emerging reflects in the change in urban landscape of the traditional town. Traditional core settlement of Harisiddhi has gone through massive change in due to Gorkha earthquake 2015. It has affected the life of the local residents residing in the core area of the traditional town Harisiddhi. The research aims to examine how the change in urban landscape has changed and how it has impacted quality of life in the traditional neighborhood of Harisiddhi. After a brief on study area the paper introduces the research approaches and methods with different paradigmatic stances adopted for the research. Perception survey was carried out for the quantitative method whereas for the qualitative method literature, historical photographs and maps were studied to understand the change over time, following pragmatic and interpretivist paradigm along with direct observations, questionnaire surveys,key informant interview and focus group discussions. It was measured in terms of physical attributes and environment, level of independence and social aspect based on WHO attributes. Findings showed that spatial changes has led to loss in cultural and historical identity, change in traditional function, parking problems while individuals were more concerned about their thermal discomfort, health security, fireescape and earthquake emergency, neglected open spaces, intangible characteristics of the town. The research shows that spatial changes prevailed in the town perceived by an individual varies according to individual. Alternative mechanisms for the change in physical environment of the town and restriction on inappropriate changes is very essential and individual's perception should be taken into account for the better understanding of the town which can help to retain its functional quality and acquired essence.

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CHAPTER 1

1.1 Background

Urbanization is a complex spatial cycle that changes over country land uses to metropolitan uses, and causes different effects on environment structures, capacities, elements, and the different vocations of individuals including job, lifework, profession, employment, trade, business. Kathmandu Valley, the most crowded metropolitan locale in Nepal, has been quickly urbanizing since the 1980s. Because of the urbanization pressure, the valley has been confronting genuine ecological outcomes lately.

Kathmandu has been significant monetarily, authoritatively, politically for many years. With its antiquated landmarks spread around, Kathmandu is an arising city where a few plans and ideas have been executed for its turn of events. In the same way as other urban areas of the creating scene, the city has been confronting fast populace development, overwhelming financial issues and issues of insufficient metropolitan administration of extension, including helpless foundation and vagrant settlements, with extreme ecological outcomes including air, water and different types of contamination.

Urbanization, economic development, changing lifestyles are interlinked with each other which determines the change in urban landscape. People are attracted to cities that offer varied opportunities for education and employment, particularly in the manufacturing, construction and services sectors. Indeed, urbanization is considered an indicator of modernization and an essential process of development. Urbanization is not merely a modern phenomenon, but a rapid and historic transformation of human social roots on a global scale, whereby predominantly rural culture is being replaced by urban culture. (Timsina, 2020)

The Kathmandu Valley is Nepal's spiritual heartland. In several ways, the cultural environment that evolved here over the last 100 years differed from that of neighboring Asian countries. The size and layout of open space, the distribution of temples and homes, and the location of cremation sites and rest houses all showed that the visual response to settlement are the important elements of any traditional town. Traditional buildings have been replaced by tall buildings with little emphasis on aesthetics. Ethnic diversification over space is an unavoidable product of internal migration and increased exposure of different communities to the outside world in a multi-ethnic country like Nepal, which has experienced rapid population growth (over 2.0 percent per year over the last four decades (Bastola and GC, 2003).

The urban space which compromises of open public spaces, streets, temple spaces, patis in the traditional town are being effected due to the different recent rapid urbanization effect as discussed above. But at present, these effects have resulted in the deterioration of spatial quality. Due to change in landscape, different traditional urban spaces have mostly lost its character and their basic components that maintained the cohesion and harmony. The degradation of urban space may have impacted the quality of life and social wellbeing. The quality of life (QOL) is considered important to determine the livability of an area. It is defined by the WHO as 'individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.' The omitted dimension of quality of life is its relationship with effect that occurs due to the change in urban landscape from the lens of urban planning. The change in urban landscape can serve as an indicator to several variables, such as land use change, population, infrastructure and environment. (Carnahan et al. 1974). This research is aimed to shed light on the spatial dimension of quality of life as it can assist the policy makers and practitioners in improving the balance between urbanization and living environment in the historic core of the traditional town Harisiddhi.

1.2 Problem Statement

Unplanned urbanization in the valley continued engulfing the agricultural lands, adding several physical, social, and environmental problems in the Kathmandu Valley and also significantly increasing vulnerability to disasters, including earthquakes (Muzzini and Aparicio, 2013; Khanal et al., 2017)(Timsina, 2020). Since traditional settlements have a blending composition of their settlement with the surrounding environment, those elements play a significant role in preserving the overall settlement pattern. Demographic change, cultural changes, and a modern way of life have all contributed to the decline of community-based area's use. In regard to the spatial pattern of Kathmandu valley, it has many agricultural based traditional Newar towns at

its urban periphery such as Harisiddhi, Thaiba, Chapagaun, Lubhu, Thecho, Bungamati, Khokana, Kirtipur. The urban landscape is being changed in these traditional town due to the above discussed changes. The changes in built-up spaces effects the social life of the people residing in the town.

Urban sprawl is caused in part by the need to accommodate a rising urban population. Urban sprawl has been correlated with increased energy use, pollution, and traffic congestion and a decline in community distinctiveness and cohesiveness. By analyzing the spatial determinants of urban growth, we deeply understand the process of urban growth, thus providing important help for urban planning and policy formulation.(Lv et al., 2011)

Urban blight is the process whereby a previously functioning city, or part of a city, falls into disrepair and decrepitude. It may feature deindustrialization, depopulation or changing population, restructuring, abandoned buildings, high local unemployment, fragmented families, political disenfranchisement, crime, and a desolate, inhospitable city landscape.

Another phenomenon which has been Gentrification is the transformation of a city neighborhood from low value to high value. Even as it may bring about a reversal in the decline of a city, displacement caused by gentrification can force prior residents into poorer and relatively unsafe areas, with limited access to affordable housing, healthy food choices, and social networks. In turn, this can trigger increased stress levels and decreased mental health.

The pleasant surrounds, the traditional urban landscape and traditional functional monuments are being changed for the want of new things. The degradation of traditional urban spaces is not only hindering the quality of urban life but also social wellbeing. Its impact results in isolation, feeling of low confidence and fear among residents leading to neighborhoods being less hospitable hosts for human to live, build a family and develop a community. Furthermore, indigenous people who used to live in the traditional towns are now migrating outside the traditional town boundaries for the bigger and modern house. This also leads to weaken the ties with the place and the community and has a significant impact on the continuity of intangible cultural heritages, as younger generations could not feel the traditional ties (Toffin, 2008). Change in urban landscape also gives place to urban poverty. The UNDP (2014: p. 27) states that poverty is rising in urban areas, whilst it is declining in rural areas. Unplanned growth and poor enforcement of building regulations have led to substandard housing and the loss of open space. Narrow streets and the incremental growth of informal settlements increases the vulnerability of the urban poor to seismic hazards (Bajracharya et al., 2015; Muzzini & Aparacio, 2013).(Bakrania, 2015)

Harisiddhi is one of the place that resides under Lalitpur Metropolitan city but its basic urban

facilities and development is lacking and its consequences are faced by the people of the society. The high density of the core is found to be gradually shifting towards periphery surrounded by a vast expanse of agriculture dominated rural area. The traditional core areas are quickly occupied by the newly built multi-story concrete buildings (particularly, after the earthquake of 2015). These multi-story buildings are occupied either by multiple families or by businesses and offices. There are a number of reasons for this trend of shifting from core to periphery as in some cases properties at core are sold due to family separation, in some other cases properties are rented and/or sold as the core areas have commercial values. In majority of the cases, the middle class of the city wanted to have detached residential building in less crowded places and hence they shift to detached housing areas developed by real estate. The access is found to be irregular. Provisions of essential services such as waste management, availability of clean and safe drinking water are also limited. Degradation of traditional community spaces is hindering the quality of urban life and social well-being. People are deprived of places where they can meet and interact with neighbors. The level of social interaction has reduced dramatically, and a sense of community is deteriorating.

Being a city with rich ethnic culture, urbanism has some effects on the ongoing culture as well as nature of society. Kathmandu's ancient city center has been rapidly urbanizing since the 1950s. The city center is attracting more buyers, customers, and immigrants as retail trade and industries become more globalized. The new trend of prioritizing economic interests over traditional values is transforming society's culture and values. At present, the pre-eminent problem existing in our country is rapid urban sprawl and beyond that many political leaders see the economic values of natural and cultural relics but know little about the historical, scientific, cultural and artistic value of them.

It was observed that Harisiddhi unlike the other settlements, has its own core history and relation with the monuments and settlement patterns. The story of residents whose life are dedicated to daily activities. With time, Harisiddhi is changing its form and structure. The need of new buildings, broader roads, high market value of land and the urge copy other developed modern cities are threatening the traditional structures even more. Now, many people regard traditional space and values as hindrance to their modern life. Moreover, there is lack of research to explain the nature of changes in traditional urban spaces and its impact on the subjective wellbeing of people.

1.3 Need of the research

The contribution of this research is to know how the urbanization has taken over the real value of the traditional town and how it has changed the previous landscape of the town. The

implications of the change creates a different story of the town which includes their social life, their livability difference between the past and present life along with their level of satisfaction. As the social life and activities of the community are one of the most important aspect in the traditional settlement. Majority of the previous work in this regard has been conducted at a broader scale and the QOL at a detailed scale has not been examined. The perception of QOL varies across regions, countries and even cities (Sirgi& Cornwell, 2002). The evidence for connections between quality of life and spatial factors remains inconclusive, especially with respect to the immediate living environment. Since the implications of change in urban landscape has transformed the urban space that influence several variables of QOL regarding the physical environment, examining its relationship with the QOL is very critical. This research thus acknowledges the need to look at the issues of urban change and its impact on quality of life from the contextual point of view and place specific perspectives. The research will be helpful in knowing the potential the town inherits and its significance for expansion. It will give more or less an idea of how to promote the development and regeneration of the town.

1.4 Importance

The research is important because it highlights the life of people residing in the town and the changes that have made in their life as well as daily basic routines. The research is important because it attempts to fill the gaps and examines impact on the quality of life due to the change in urban landscape which has resulted in the transformation of traditional urban neighborhood of the study area. The study will go through the consequences that has been faced by them from the evolution of urbanization taking place. The research findings may assist the policy makers, urban planners and designers in addressing growing problems of degrading quality of life due to urban change. The need of infrastructures will be identified which is being lacking due to the drastic changes taking place. The results of the research may be beneficial to the local officials, policy-makers, and community leaders to formulate new policies and system.

1.5 Research Purpose

Nepal's urban areas have the potential to drive growth to the benefit of the entire country. As the change in urban landscape in the traditional settlements is being faced due to the different phenomenons of urbanization. Traditional settlements responds to the built environment and social relationships however in the modern times as the technology is overtaking than the acceptance and adaptability of traditional urban space, the balance between the built environment and social relationships is affected. This research can help in understanding of multiple views of a specific society that can give a filtered output

after analyzing the different views of different people. The resulted output take certain factors into consideration of traditional town that are socioeconomic, humanistic, ecological, and other factors, and healthy layout requirements that are interdependent with each other. The main purpose of this research to know the extent to which quality of life has been affected by the changing environment and also to come up with mitigation measures to improve quality of life.

1.6 Research Question

How has the urban landscape of the traditional town been changed and how it is impacting the quality of life of inhabitants?

1.7 Objectives

- i. To analyze the spatial changes in the traditional urban spaces.
- ii. To understand and analyze the perception of wellbeing/quality of life and its relation with the change in urban landscape of immediate environment.

1.8 Expected Output

As the research objectives are mentioned which targets to understand the spatial changes that effects quality of life, regarding the urban changes taking place traditional town and to understand and analyze the perception of the society towards their town which is being carried out by the driving forces. Both the variables obtained from the literature as well as the perception survey of the inhabitants would be considered to form the output statistics. The degrees of learning from them would also be compared with the observations as well. Finally the consolidated variables output would provide determinants and the degrees that change in urban landscape is affecting the quality of life. The output will be helpful in examining the quality of life that the community is living, their satisfaction level that may differ due to the impact of rapid urbanization that has taken place in the community. The output factors will help in planning for the future planning strategies that maintains the traditional town identity which is being effected by the outside driving forces. It will also help the policymakers to enhance policies in this context.

1.9 Scope

The study area taken is a traditional town therefore the scope would extent in terms of both tangible as well as intangible in the urban environment including its implications on the quality of life and social wellbeing of people. The tangible aspects would include changes in buildings and open spaces while the intangible aspects would include usages and perception of those

spaces as well as social cultural aspects. The study identifies the relationship between those changes and the quality of life through environmental and social dimensions. The study also emphasizes on finding the mitigation measures to improve quality of life in traditional settlement.

1.10 Limitations

The research will cover the life effected on the core settlement of the town. A boundary around the study area will be maintained. It will focus on the social life of the people of town that has been changed due to the change in urban landscape. The study is limited in terms of time constraints, so the research has been limited to the case study area, total population of the study area was not known so study was limited to perception survey at the study area and interviews with the key personnel. In addition, the research only focuses on the spatial and sociocultural dimensions of quality of life so, economic dimensions such as like level of income, employment savings etc. are not considered. The research has followed the attributes recommended by WHO for measuring QOL and is subdivided and limited to three categories i.e Environment, Comfort and Safety and Social Relationships. As the research is based on qualitative analysis, therefore no index will be included for the measure of QOL.

CHAPTER 2 CONCEPTUAL FRAMEWORK

2.1 Choice of Methodology

Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge.

The ontological position in this research is that the change in urban landscape has affected the quality of life in the traditional town Harisiddhi. The first objective deals with spatial changes that has been faced by the traditional settlements due to the different phenomenons of landscape change which is subjective in nature. Quality of life deals with the people's perception of wellbeing and its relation with immediate environment. Quality of life is "the satisfaction in your life that comes from having good health, comfort, good relationship etc., rather than from money" ... It is "The personal satisfaction (or dissatisfaction) with the cultural or intellectual conditions under which he lives". (Diener et al., 2002). So epistemologically the objective stated needed to be studied within pragmatic paradigm. Pragmatic paradigm involves both quantitative and qualitative research which is used in this survey. Interview surveys and ethnography can be used as a tool for better understanding. It promotes the triangulation of quantitative and qualitative methods that explores the diversity of facts researchable through

various kinds of investigations but respecting and valuing all findings as the essential components for the development of knowledge (Clark, 1998).

Moreover interpretivist/constructive research could be carried out for the second objective. In this sense, it is a modified realist ontology that believes the quality of life is composed of peoples experience across the entire neighborhood where the study is carried out. The researcher here needs to see the facts of quality of life through the eye of the occupants of the case study area. The next step in the research process is data analysis and interpretation, which comes after defining a research subject, conducting literature background research, developing philosophical assumptions and a focus issue, agreeing on an acceptable research model and methodology for a specific intent, designing a research strategy, and collecting sufficient data. The knowledge acquired in this discipline can be socially constructed. The researcher here needs to see the facts of quality of life through the eye of the occupants of the case study area. The mechanism that enables the study method to obey the essence of the data itself is referred to as the phenomenological theory research approach. This is referred to as emergent strategy (Walters, 2015). The specifics that can be appreciated from an experience that a subject has had are the target of analysis. Narratives or interviews based on artistic representations, photography, and other emergent techniques like objects involved, activities and their results, time, descriptive elements, physical surroundings, characters or their aspects such as relationships and social interactions. Thus this phenomenology can be used for fulfilling the objectives that have been targeted.

2.2 Research Method

Research methods are the various procedures, schemes, algorithms, etc. used in research. They are essentially planned, scientific and value-neutral. This study combines the use of both qualitative and quantitative methods. The qualitative aspect helped the study to interpret relationships between the study variables. The study was descriptive/qualitative because it will comply with the characteristics of descriptive research (Creswell, 2012). On the other hand, the quantitative method helped to know the comprehensive experience of the topic under study. It also helped gather more information quantitatively of what has been learnt from the other sources.

Sampling was taken for the survey to be carried out of the study area. There are different types of sampling that can be chosen for taking the sample size of the study area. The type of sampling taken for this study is stratified sampling. It involves dividing the population into subpopulations that may differ in important ways. It allows you more precise conclusions by ensuring that every

subgroup is properly represented in the sample. To use this sampling method, the population is divided into subgroups(called strata) based on the relevant characteristics(e.g. gender, age range, income bracket, job role). For this study, the population is divided into subgroup of age group.

Sample Size Calculation

Sample size is a statistical concept that involves determining the number of observations or replicates (the repetition of an experimental condition used to estimate the variability of a phenomenon) that should be included in a statistical sample. It is an important aspect of any empirical study requiring that inferences be made about a population based on a sample. Essentially, sample sizes are used to represent parts of a population chosen for any given survey or experiment. To carry out this calculation, set the margin of error, ε , or the maximum distance desired for the sample estimate to deviate from the true value. To do this, use the confidence interval equation above, but set the term to the right of the \pm sign equal to the margin of error, and solve for the resulting equation for sample size, \mathbf{n} . The equation for calculating sample size is shown below.

Unlimited population:
$$n = \frac{z^2 \times \hat{p}(1-\hat{p})}{\varepsilon^2}$$

Finite population:
$$n' = \frac{n}{1 + \frac{z^2 \times \hat{p}(1 - \hat{p})}{\varepsilon^2 N}}$$

where

z is the z score

 ε is the margin of error

N is the population size

 $\hat{\mathbf{p}}$ is the population proportion

The sample size calculated for the study area is 104 which means that 104 or more measurements/surveys are needed to have a confidence level of 90% that the real value is within + or - 9% margin error of the measured/surveyed value.

The research went through quantitative data to interpret and analyze easily. Through this method it helped in getting the responses of similar questions mostly close ended from a large sample and those responses are qualified for conclusion to be drawn. The study was concerned with the numbers and frequencies within which quality of life is associated with change in urban

environment, therefore it is a quantitative study. Survey strategies were used in gathering the necessary information which helped meet the objectives of the research.

Survey method is an attempt to collect data from members of population in order to determine the current status of that population with respect to one or more variables. The research is done by asking questions to large groups of people (Holmes, et al., 2000).

The term survey is used for the technique of investigation by a 'direct-observation' of a phenomena or systematic gathering of data from population by applying personal contact and interviews when an in adequate information about certain problem is not available on records, files and other sources. The survey design will be convenient since the researcher will use questionnaires as a tool of collecting data.

2.3 DATA COLLECTION

Data collection is the method of gathering data from all available sources in order to solve the study issue, test the hypothesis, and assess the results. Data collection methods are classified into two categories: secondary data collection methods and primary data collection methods.

Primary data for the research is collected using various instruments such questionaires, interview schedules, checklist and observation guide. Secondary data is information that has already been published in books, newspapers, magazines, journals, and other online resources. These sources provide a wealth of information about your research subject. Therefore, application of appropriate set of criteria to select secondary data to be used in the study plays an important role in terms of increasing the levels of research validity and reliability.

There are two types of primary data collection methods: quantitative and qualitative. Methods for collecting quantitative data are based on statistical equations in a variety of formats. Qualitative analysis techniques, on the other hand, do not rely on numbers or equations. Words, sounds, feelings, thoughts, colors, and other non-quantifiable elements are central to qualitative study. Interviews, questionnaires with open-ended questions, focus groups, evaluation, case studies, and other qualitative data collection approaches are used to ensure a greater degree of scope of understanding. Hence, these both methods can be applied on the research subject.

Questionnaires

Additionally, questionnaires are also a popular method of data collection because of the relative ease and cost-effectiveness with which they are constructed and administered. Questionnaires give a relatively objective data and therefore, are most effective. The study used questionnaires which were administered to sampled population of residents of Harisiddhi to determine impact

on quality of life due to change in urban landscape. The information given by the respondents would be used to understand to what extent the quality of life is affected by the change in urban environment.

The most important elements to facilitate the interview were the wording of the questions, the option provided, ordering the sequence of the questionnaire. This stage includes initial questionnaire design, consultation with the supervisor, revisions and further consultations with the expertise, add-ons after review from the site constraints and more revisions after the pretest of questionnaires. A three pointer Likert's scale was mostly used for rating the satisfaction levels and the reasoning was followed up for the satisfaction level.

Interviews

An interview schedule is basically a list containing a set of structured questions that have been prepared, to serve as a guide for interviewers, researchers and investigators in collecting information or data about a specific topic or issue. The schedule will be used by the interviewer, who will fill in the questions with the answers received during the actual interview. In this study, key informants were first identified and then interview guides were used to solicit information from members of the local guthi, local leaders to help understand their perception of urban landscape change in the area and whether or not it is impacting the quality of life, their aspirations regarding the area is also discussed in the interview.

Observation

Observation, particularly participant observation, has been the hallmark of much of the research conducted in anthropological and sociological studies and is a typical methodological approach of ethnography. It is also a tool used regularly to collect data by teacher researchers in their classrooms, by social workers in community settings, and by psychologists recording human behaviour. Observation is the systematic description of the events, behaviors, and artifacts of a social setting (Marshall & Rossman, 1989, p. 79) The study was able to observe the usage of the urban spaces as well as other factors that cause misuse and disuse of the spaces such as pollution, congestion, haphazard parking, lack/inadequate of amenity, encroachment, poor maintenance among others. The study had a checklist to provide information about the actual condition and behavior to be observed on the urban spaces and note the observations.

Mapping, Sketching and Photography

Historical maps are studied and overlaid with the existing maps to understand the change in urban landscape of Harisidhhi overtime. The change in urban spaces is studied through old

photographs and present scenario. Old Photographs and sketches of the area were taken to understand the physical changes and the change in usage of the spaces.

Secondary data

Document Analysis

Available materials and information from books, journals, articles, magazines or newspapers which added more information to the study were collected and studied. The information sourced focused on looking into the phenomenons adding to the change in urban landscape and the spatial changes that has taken place overtime alongwith the parameters and elements of quality of life in context with the changing immediate environment in the traditional town Harisiddhi.

CHAPTER 3 LITERATURE REVIEW

3.1 Urban Landscape

Lingfeng and Xilong (2009) state the urban landscape is a kind of man-made environment on the natural environment which has own physical and spiritual aspects. Y. Zhang (2014) expresses the urban landscape as an image of the city's socio-cultural environment. A physical space consisting of materials and forms that leads to the creation of an integrated artistic space. In this space urban landscape as a comprehensive art is inherently related to other forms of art. In fact, the urban landscape includes all areas and functions such as residential, institutional, commercial, industrial, cultural land uses (Kalaiarasan, 2016). In fact, people's perception of their everyday environment is affected by Landscape patterns (Ode et al., 2009) and to understand landscape preferences, landscape aesthetic theories suggest applying the landscape patterns (Tveit et al., 2006).

Quality and quantity of Activities in an urban environment can influence the people to stop and interact in these spaces. Public spaces provide the situation for the widest range of daily activities to periodic celebrations, individual or collective, active and passive (Gehl, 1987). Necessary activities are carried out without being related to the physical environment, while the Optional activities depend on qualities which have been provided by space for the people and also activities which they are persuaded to do. To the extent that space is more desirable, more optional activities are carried out and the duration of the necessary activities increases. Social activities that involve children's play, listening, talking, Communicating and seeing and hearing other people are the result of the quality and duration of other types of activities because they occur when people meet each other in special circumstances.

3.2 Change in Urban Landscape

Cities were first established because people needed to congregate for reasons like security and defense, trade and exchange of products and services, access to knowledge, other people, and certain resources, and taking part in activities like using a team effort or structure, as well as particular tools, machinery, etc. The crucial component was that communication was necessary for activities, which at least meant being present at the same time and location. The combination of an essential social component is promoted by people in place and time, and this was subsequently seen as capturing the cultural essence of the "urban."

Urban environments and concepts for designing, modifying, and improving them have seen tremendous change in recent years. The utilization of technologies has had a big impact on the shape and character of the settlements. The distribution of space activities and the transformation of urban spatial form have both been influenced by increased mobility brought about by transportation advancements. Urban regions can now expand out because of transportation sector improvements that have compressed space-time and made it possible for people to traverse great distances quickly. Meanwhile, communications sector advancements have enabled co-presence in communication possibilities.

Physical and electronic mobility improvements have made it unnecessary for activities to be concentrated in one area while allowing them to be dispersed. An expanse of expanding polycentric cities has replaced the traditional concentrated city form.

Traditional urban areas were thought to represent the advanced stage of urban form. According to Relph, place is result of the interaction between its 3 components; physical setting, activity and meaning. In environmental psychology research, many agree that development of emotional bonds with places is a prerequisite of psychological balance. A sense of belonging is necessary for psychological well-being which is developed by relationships with the environment. Hence, what should concern planners and designers is to understand how people and places interact and how they form a bond. That is necessary to create liveable places. Place identity, place attachment, and sense of place are some of the concepts that involve the relationship of humankind and his environment. All these concepts refer to the affective and cognitive relationship between human and the physical environment. (Achparaki et al., 2012)

Urban Landscape and identity

Landscape is a dynamic phenomenon which is shaped by both natural and cultural forces. Thus,

change is an inherent character of any landscape. Changes in landscape may not always happen as a result of planned actions, but may also be an unexpected effect. Although change of the environments does not necessarily have to result in negative ways, it is a process that is often perceived in negative terms. The magnitude and speed of the change that has been faced since the 20th century is dramatic and environmental problems it has caused is apparent and alarming. Besides current landscape changes are characterized by the loss of diversity, coherence and identity of the existing landscapes. The major forces of landscape change can be defined as:

- 1. Socioeconomic driving forces (primarily economic factors; market economy, globalization etc.)
- 2. Political driving forces (political programs, laws, policies etc.)
- 3. Technological driving forces (information technology, developments in transportation etc.)
- 4. Natural driving forces (changes in climate, topography, soil characteristics etc. and natural disasters)
- 5. Cultural driving forces

On the other hand, Antrop (2006) is more specific and definite when defining the driving sources. According to him the main driving forces of landscape change are:

- 1. Mobility patterns related to accessibility of places
- 2. Urbanization process
- 3. Decisions affecting large areas that overrule local decisions
- 4. Calamities (Achparaki et al., 2012)

The process of the landscape changing is ongoing and very complicated. It demands a multidisciplinary approach to be dealt with. The aforementioned elements are all somewhat interconnected. But because landscapes are such intricate systems, it can be challenging to comprehend how different driving forces interact and affect one another.

Cities are social organizations as well as physical constructions. The core components of cities that keep them vibrant and functional are the people who live there. The physical attributes of a city and its inhabitants are interconnected. While a city's physical attributes (buildings, open areas, streets, etc.) are moulded and developed as a result of its inhabitants, a city also influences its inhabitants' way of life and sense of social identity over time. Therefore, cities are cultural treasures.

The deterioration of the public domain has a profound impact on urban identity as well. Public areas are essential components of a city because they serve as hubs for social, cultural, and commercial activity. They are the center of the city as a result. Citizens congregate in public areas that offer them possibilities for leisure, entertainment, socializing, gathering, performing

arts, sports, public art, and cultural activities. In essence, they bring life to city living and foster a sense of belonging. However, due to changing lifestyles where individuals spend the majority of their time in virtual surroundings, public spaces are becoming less important or decreasing in relevance in many modern cities. But how does this impact the distinctiveness of urban settings? First of all, social contact and activity take place in public spaces. Second, people and groups interact most freely in public areas of the city. Thirdly, they give people somewhere to be themselves and express themselves. Finally, they contribute to both physical and mental health by providing the aforementioned chances. As a result, they are crucial in creating and preserving one's own identity as well as one's sense of location. A person's quality of life will be negatively impacted by the elimination of public areas, which will also harm social cohesiveness.

It is difficult to predict exactly how future urbanization trends will change our lives and our surroundings. We can only envisage potential outcomes, and so far, this is only worrisome.

3.3 Urban Spaces

At both the local and municipal scales, urban open spaces make a substantial contribution to urban sustainability. They benefit the city's citizens in terms of the environment, health, social services, and economy. It has a symbolic meaning for the community, just like sustainable methods of urban development. As a result of the processes of globalization and urbanization, the creation of open spaces is evolving along with the notion of neighborhood. The idea of open spaces has been used to address important issues like health and welfare as well as inequalities in contemporary society. Open urban places that are accessible and well-managed promote physical activity, mental wellness, and healthy child development. According to the majority of studies, children who have access to secure green spaces and open areas are more likely to engage in physical activity and are consequently less likely to be overweight.

Playing outside and participating in outdoor activities supports healthy brain growth and fosters wellbeing into adulthood in urban environments. Urban and peri-urban open spaces and green areas are becoming an increasingly important component of a healthy urban environment as people living in towns and cities have limited access to the natural environment.

3.3.1 The Square

Urban squares have developed in response to the pattern of daily life. Reaction to a mobility pattern connecting homes with other urban locations like rivers, temples, ponds, farms, etc. Movement patterns outlined the layout of the streets and indicated where human interaction

would occur. Squares can be segregated into two types:

Private Square

The public areas in urban settings that are physically closest to a person's home are referred to as domestic squares or private squares. You may consider these squares to be an addition to your house. Private squares frequently have a small cluster of families, a cluster of apartments for professionals, or possibly a cluster of bungalows for the elderly. As a result, only a tiny fraction of homes actually share a private square.

Neighborhood squares

Physically, homes or housing units are further removed from neighborhood squares. This implies that using neighborhood squares requires a very particular selection. These are more public because of the multiple access and comparably larger sizes.

Civic squares

The civic squares category comprises the majority of the urban squares that have been discussed. Large palace squares, commercial plazas, and docks are a few examples.

3.3.2 The streets

The settlement's expansion beyond the main plaza into nearby places is what gave rise to the street. Access to each plot is granted, and it offers a framework for the distribution of the available land. Compared to the square, its personality is more overtly practical. Only in passing is the building's backdrop noticed. Traditional town street designs were created to fit the scale of an average person; they are not suitable for motorized traffic but are suitable for normal human activity and movement. In exclusively residential communities, streets are viewed generally as places for public movement and entertainment. Only when it is a component of a system with access for pedestrians off the roadway can street space function.

3.4 Historical Urbanism of Traditional Towns in Kathmandu Valley

Human habitation began to grow in the Kathmandu Valley during the Lichchhavi era. The Lichchhavi ruins, which are primarily inscriptions, stone carvings, and architectural pieces, attest to the Kathmandu Valley's entire occupation. Although the Lichchhavi monarchs are believed to have built the groundwork for settlements in the Kathmandu Valley, the remnants of Lichchhavi townships have not yet been uncovered (Hutt, 1994; Tiwari, 1989). After the Lichchhavi dynasty was overthrown in the tenth century, there was a dark period that lasted for several centuries before the establishment of the Malla dynasty in the thirteenth. ns. The Malla cities' urban design can be viewed as a thoughtful conglomeration of exquisitely sculpted streets and squares. This shows a fine-grained network of city blocks separated by a collection of linked squares or courtyards. The interplay between the small streets and open

spaces, the positioning of dwellings and monuments, and other aspects of the urban architecture of the valley's cities all reveal a great awareness of aesthetic and practical principles that are connected to social requirements. The Newars were expert builders, and they were incredibly skilled and intelligent in their treatment of scale, space, and how to position buildings inside a square for the best visual impact.

The Malla towns' urban areas have been set up in an original and creative style. These towns are said to have "a distinct set of [urban] squares with a defined hierarchy of social [and] cultural activity," according to Tiwari (1989, p. 95). The residential neighborhood square is frequently set back from the streets and only partially enclosed, or it might take the shape of a sizable enclosed courtyard. The Kathmandu Valley's ancient towns are organized into a number of residential communities. Community squares serve as the primary structural component of the toles, which are social and spatial units (Pant & Funo, 2007).

The Kathmandu Valley towns include four distinct types of urban squares, as was previously described (Tiwari, 1989). The Durbar square is not included in this discussion of neighborhood public space; instead, it is the market square, the residential neighborhood square, and the private residential square.

These squares have been a crucial component of urban neighborhoods, contributing significantly to the construction and physical organization of those neighborhoods. On the other hand, they have also acted as a venue for social interaction inside the community where the activities of daily life are conducted. The market and residential neighborhood squares, which are squares of higher class, take on a new atmosphere during feasts and festivals thanks to strong utilization and activity. These public squares contain a variety of urban interest components both to facilitate human activity and for their aesthetic value.



Figure 1: An urban square formed at street intersection in Harisiddhi

In traditional neighborhoods, daily life also takes place on the streets and in other public spaces (Hosken, 1974). "Many social activities also have their locale in the streets and particularly in the adjoining open public shelters, the patis; here games and music are played, gossip is exchanged, instruction is given, and business is conducted; here mendicants and traveling religious men may rest and sleep," writes Sekler (1979, p. 103) The nature of life in the tole "varies with the time of a day, and changes with the seasons of the year," while people are busy carrying out various types of daily duties (Shokoohy, 1994, p. 45).

Festivals of one kind or another have a significant impact on the social life of the Newar people in addition to regular activities (Shrestha et al., 1986). Festivals gave existing religious locations, squares, and streets new social and cultural importance through their chariots and the starting, finishing, and stopping points along the route. Other festivities employ the streets with gods riding in chariots along the streets and squares of the neighborhoods, while some festivals call for a big public place for the presentation and worship of an idol or deity by the audience.



Figure 2: Rituals being performed at temple square

3.5 The Planning and design of traditional towns

The Kathmandu Valley's traditional towns provide an exceptional amount of public space and a distinctive backdrop for urban life. They consist of wonderful urban spaces that are arranged in an original and creative style and dispersed throughout the entire municipality (Tiwari, 1989). The Kathmandu valley's traditional towns provide as good examples of vibrant, livable, and diversified urban environments. Phenomenology, according to Seamon (1980), is the study of the structures of human experiences as they occur in the real world. A phenomenological perspective of place, particularly in light of Relph (1976), contends that knowing a place requires experience. The ancient towns of Kathmandu, whose homes, pedestrian streets, neighborhood shops, temples, and open spaces are more in tune with the broader urban fabric, are a good example of how places, their social and architectural aspects, and their inhabitants should have significance to each other. The Kathmandu Valley's historic settlements are organized into a number of residential toles (twa in Nepal Bhasa5). The toles are both spatial and social units (Pant & Funo, 2007), and have community squares as a main element (Chitrakar, 2006; Gutschow, 1993; Pant & Funo, 2007; Shokoohy, 1994). In order to partition the entire town into separate sections based on social categories, the neighborhood units are demarcated. When compared to modern neighborhoods, traditional neighborhoods are noticeably smaller in size. Depending on how the buildings are arranged around courtyards or along streets, the toles may have different shapes and sizes in terms of their physical construction. Additionally, this is influenced by the number of families, how they are distributed around a neighborhood, and how close the homes are to public amenities. The Newars of the Kathmandu Valley have a gregarious living pattern, with dwellings grouped

around a central open space of residential communities (Pant & Funo, 2007). The Kathmandu Valley towns include four distinct types of urban squares, as was previously described (Tiwari, 1989). The Durbar square is not included in this discussion of neighborhood public space; instead, it is the market square, the residential neighborhood square, and the private residential square. These squares have been a crucial component of urban neighborhoods, contributing significantly to the construction and physical organization of those neighborhoods.

Whereas Tiwari (1989) identifies three types of neighborhood urban squares, observations show that these squares follow two basic approaches of spatial configuration: a) space formed at street intersections – the street squares; and b) the enclosed space of a courtyard.

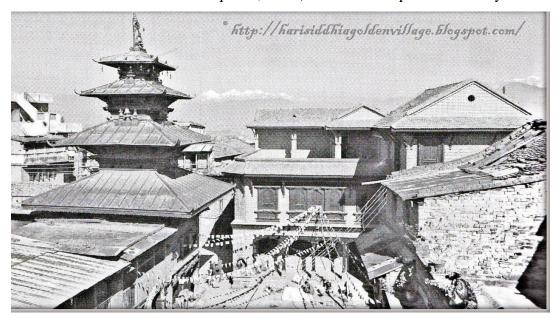


Figure 3: Harisiddhi in 1950s (Temple dominating the skyline of the area). Source:harisiddhigoldenvillage.blogspot.com/

Urban place and environment, self-conscious and unself-conscious placemaking process, sense of place, approaches to environmental experiences, and environmental authenticity are the main characteristics of the phenomenological aspects of urban places that are related to improving the urban environment of the Kathmandu Valley. Since such historic cities were built for and based on people's social lifestyles and with extensive knowledge of culture, they can be tied to Relph's explanation of place through their architecture. The narrow pedestrian streets flanked by four-story homes, the smaller private courtyards, the larger public courtyards, the dabalis, dhungedharas, and temple precincts in every traditional town within the Kathmandu Valley are all examples of how every space created was intended to evoke meanings for the users.

As discussed by Tiwari(2007 and 2009) and Korn(1976), the traditional urban design of the valley demonstrates how the positive spaces were well-connected with the buildings and served various day-to-day and special purposes. The people could use the space during social purposes

both formally and informally and were regularly involved in these outdoor spaces. The current developments do not add to the vales of the users nor do they provide an experience of the environment.



Figure 4: Urban spaces used for daily activities

Kathmandu's organic towns provide significant inspirations for a responsive urban design especially through meaningful relationships between the built structures and the open spaces of social, cultural, economic, and environmental significance. Quick access to open spaces did not only function as social spaces for the users of the communities but also acts as evacuation spaces during the disaster.

3.6 Urban Fabric of Harisiddhi

As mentioned by Prof.Dr Sudarshan Raj Tiwari, Newars, indigenous to Nepal Valley, make the only community in Nepal that has been traditionally urban. Newar urbanism, in a large way, resulted from a replay of the myths, legends, stories, social memories and rituals of their calling in a urban setting and space populated by spirited spots and power places, Dyochhe and Pith, temples and trees, Kuwa and Kulo, and etc., and networked through the pathways assigned for the gods, the living and the dead. Contemporary living appears purposely woven into the 'inherited life' of the gods and the ancestors. Spatially bound communities and social institutions with automated agendas managed the replay and rejoiced in making present life out of 'inherited life'. The consequent humanization and the human scale is what makes its intangible content as world class as its tangible heritage of architecture and town. According to him, study of urban history and historical urbanism had led him to believe that towns express their marvel more as a social artifact than a cultural technological product; and it is in streets and pathway crossings, at dobatos, chaubatos and chowks that this urban and urbanism happens.

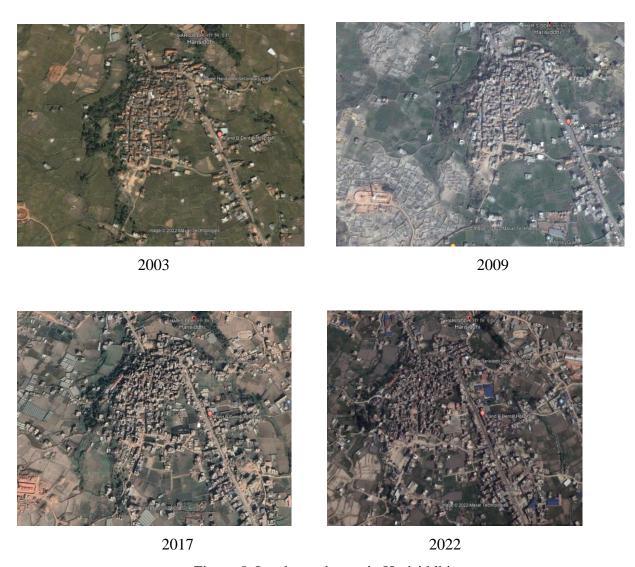


Figure 5: Land use change in Harisiddhi area

At present, the pre-eminent problem existing in our country is rapid urban sprawl and beyond that many political leaders see the economic values of natural and cultural relics but know little about the historical, scientific, cultural and artistic value of them.

Harisiddhi is also one of the oldest traditional settlement of Kathmandu Valley which carries many historical and cultural values. This report will look forward to put an effort to know the effect of the rapid change in urban landscape of the town and how it has affected the social life of the people. The plans can be designed to bring the positive change inside the settlement developing socially, physically, economically and politically. The government bodies, local bodies and private bodies are the core elements to launch the plans from ground zero.

3.7 Quality of Life

Quality of life is defined by the WHO as "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". It is a broad concept that takes into account a person's

physical and mental well-being, independence, social connections, religious convictions, and interactions with key environmental elements.

This definition reflects the viewpoint that quality of life is a subjective assessment embedded in a cultural, social, and environmental context. Because the WHOQOL focuses on respondents' "perceived" quality of life, it is not expected to provide a means of measuring symptoms, diseases, or conditions in any detail, nor disability as objectively judged, but rather the perceived effects of disease and health interventions on the individual's quality of life. As a result, the WHOQOL is an assessment of a multidimensional concept that includes the individual's perception of health status, psychosocial status, and other aspects of life. To ensure that the collaboration was truly international, field centers were chosen to represent differences in industrialization, available health services, and other indicators relevant to measuring quality of life (e.g., role of the family, perception of time, perception of self, dominant religion).

Urban quality of life is the basis of the environment-centered perspective of the concept of quality of life. In the context of taking precautions against the negativities that have become the source of many urban problems such as environmental deterioration, social exclusion, insecurity and traffic that occurred in the urban environment after the industrial revolution in the West (Santos and Martins, 2007). Urban quality of life consists of components related to the physical environment, social and economic environment quality, as well as the quality of life. In particular, the urban environment with high visual quality and physical comfort conditions increases the quality of life of people. Physical environment quality can be defined by features such as open and green spaces, transportation and public transportation, infrastructure and services, communication, sociocultural activities, housing type and quality, protection of natural and historical values (Kalaycı Önaç and Birişçi, 2019), living environment, reducing the environmental impact of areas and the value of recreation areas (Emür and Onsekiz,2007).

3.7.1 Quality of life and its Spatial Relationship

The relationship that the citizen establishes with the city is primarily provided in urban spaces. The quality of the urban space is also the determinant of the quality of life of the person. A quality life is formed by the balanced spatial relationship of the areas that make up the urban pattern. Urban landscape is the composition of the landscape in the city. It expresses a conscious order of the urban environment. Urban landscape organized to meet the needs of people in urban areas; It is a concept that expresses the composition formed as a result of the projections of the buildings where social activities such as work, accommodation and restentertainment take place in the physical space, the natural landscape structure of that city and

the cultural landscape structure of the city together with the historical dimension of the city (Erkaya, 2012).

Benavidez Oballos [16] defines quality of urban life as "the degree of satisfaction with the possibility to fulfil needs and aspirations by individual's occupying an urban space". It can be inferred that the physical environment has an evident impact on the urban individual's quality of life. This correlation, while one of the underlying premises for all planning and design activity, is often tacitly assumed without further investigation, or follow-up monitoring. An exploration of this relationship is therefore prerequisite for providing urban planners with a good tool for evaluating the effect of their actions on the resident's quality of life.

3.7.2. Dimensions of Quality of life

When an individual's quality of life is aggregated to community level, the concept is linked to existing social and environmental conditions such as economic activity, cultural activities. It includes both tangible and intangible measure reflecting local consensus on the community's values and goals. The measurement of QOL is usually undertaken using either objective or subjective variables. Objective variables are particularly useful at neighbourhood, city and country levels whereas subjective variables have been employed more at the individual level. Personal health, personal hygiene ,clothing,physical appearance, number of family members or employment are the factors which affect the standard of living attribute. The physical conditions of the environment through the analysis of physical characteristics of the building's interior and exterior spaces. Besides the buildings, analysis of physical characteristic of public space together with the attractiveness and cleanliness of the place in general helps to determine the level of QOL. Links with the social environment, sense of acceptance and connection with family, friends, co-workers and neighbourhood community is important determinants of social belonging and aspects for the assessment of social attributes.

In general, the assessment of the attributes mentioned above can help to clarify whether a person is physically able to get around, free of worry and stress or not, have own ideas of right or wrong, live in a poor or rich environment, is close to people in his/her family and community, able to get professional services such as medical, social so far, have enough money, do things around his/her house, working at job or going to school, doing outdoor activities like walking, cycling, socializing etc. or being able to cope with changes in his/her life, which are major determinants to state level of quality of life.

ribute	Factors incorporated within attributes
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Standard of Living	Physical health Personal Hygiene Physical appearance and clothing of family members Purposeful activities to achieve personal goals Employment
Physical attributes	Physical characteristics of building interiors and exteriors Physical characteristics of public open spaces Attractiveness of place Cleanliness of a place
Environment	Freedom, physical safety and security Opportunities for acquiring new information and skills Participation in an opportunities for recreation/leisure Pollution/noise/traffic
Economic condition	Level of income
Level of independence	Mobility Activities of daily life Work capacity
Social Relationship	Link with social environment Relationship with family members Relationship with neighbors and community Social support

CHAPTER 4 – CASE STUDY

4.1 Introduction

Harsiddhi is one of the oldest Newari settlements, southeast about 8km far from the capital city of Nepal, on the way to Godawari forest. It is one of the historical village named where mostly Maharjan caste from the Newari community reside.

Harsiddhi, also called "Jala" in Newari terms is famous for its ancient cultural and historical monuments. Instead of Harsiddhi the actual name of the village is "Hara siddhi" after which Harsiddhi is named by the locals. The Newari community are living widely in this village. Ancient festivals and ceremonies, traditional houses, taps, wells, temple and ponds are the famous things in Harsiddhi.

Harisiddhi is one of the most visited tourist sites in Lalitpur due to its sacredness associated with the Harisiddhi temple. Harisiddhi lies in Lalitpur municipality, the settlement lies in ward no. 28 & 29. According to the national population and housing census 2011, the total population of Harisiddhi is around 10,736 with 2737 households.

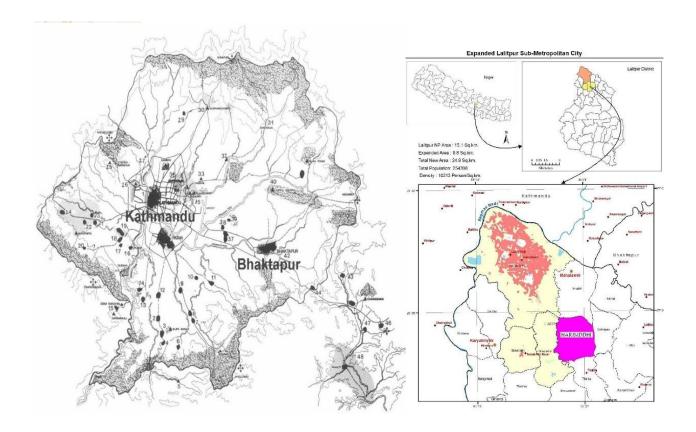
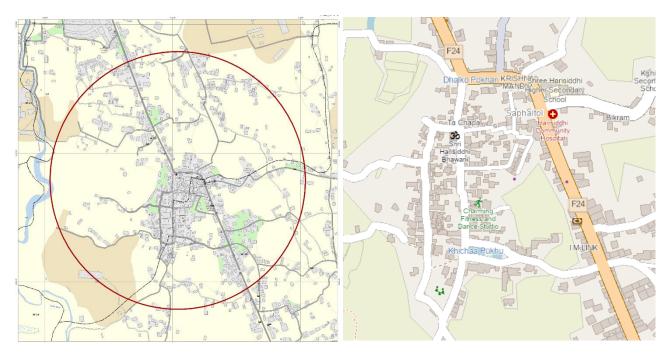


Figure 6: Location of traditional town of Kathmandu in the valley, location of Harisiddhi in the map



Source: Digital Base Map of Lalitpur Metropolitan

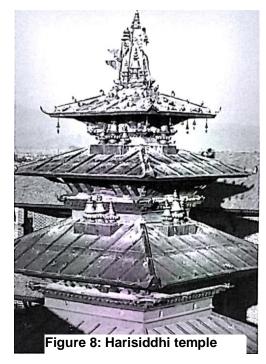
Figure 7: Location of Harisiddhi area and Traditional settlement area of the town

4.2 History

The village is thought to be named after the goddess Harisiddhi, whose four-tiered temple is

located in the village's center. It was once believed that two giants went to Kailash Parbat (the location where Lord Shiva lived) and injured the gate-man, 'Nandi.' Lord Shiva was aware of the incident and recalled the Goddess, 'Chandika.' The Goddess appeared immediately and killed the two giants as Lord Shiva had predicted, and she is now worshiped as Harsiddhi.

The term Harisiddhi has been misused. Actually, it should have been Hara (Shiva) and Siddhi (Parvati) or Harasiddhi, which means that half of the body is Shiva and the other half is Parvati; the Lord Shiva and Parvati's attributes. Harisiddhi temple is built on the First Space Concept, which means that the building is viewed as a sculpture from the outside, with minimal use of interiors.



4.2.1 Settlement structure

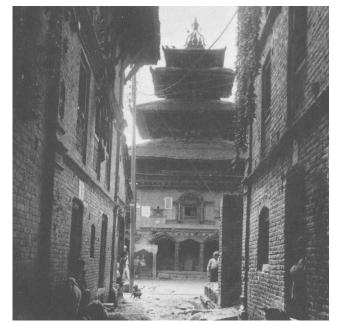
4.2.2.1 Newari settlement pattern

The central area of Newari settlements are the open spaces in the form of squares and all the major routes converged to it. The secondary roads and narrow alleys passed through compact buildings and these settlements also had smaller open spaces in the form of quadrangles. These squares if they have the Buddhist shrines in them were called Bahas and the ones without shrines were called Nani or chukka.

4.2.2.2 Historical settlement pattern

Previously Harsiddhi was named "Jesthapur". Harisiddhi was also called "harasiddhi" which later got translated into "harisiddhi". Harisiddhi was previously a small village. The area between within the 4 gates was Harsiddhi's original settlement area. The entry from north is done through the "pipal" tree situated near the entry, through which one can directly reach to the "lachhi" main chowk of the Harsiddhi settlement. The housing typology were of typical Newari settlement, with no any modern forms introduced. The houses with typical Newari doors and windows i.e. carved wooden windows and sloped roofs. The houses were normally of 2 to 3 stories. The houses were in cluster form with each house facing towards courtyard. Houses were clustered along the streets and around the courtyards. Harisiddhi lies in the Lalitpur municipality. Previously, harisiddhi was divided into 28, 29 & 30 ward. The major

caste living in harisiddhi were Newar with Maharjan caste. Besides, The entries of the *suvakarya* were done through the opi dhoka. Similarly, the dead bodies were taken out from the saamal dhoka which is in the western side of the settlement. The neighborhood have community squares or courtyards were provided with public amenities. Each courtyard contains elements such as the temples, Pati (public rest house), pond, water well and Dhungedhara (stone water spouts), and enclosed shrines (Narayan temple). Harisiddhi does not has stupa or Buddhist monastery within the four gates.



Instead it has Narayan temple this is because the people Figure 9: Harisiddhi Temple from galli residing in Harsiddhi are mostly Hindu. The open courtyards are also in the varying sizes.

4.3 Present settlement pattern

Expansion of village in recent years

Presently Harisiddhi lies in the 28 and 29 ward of Lalitpur municipality. The settlement pattern is similar as of previous, but the settlement around the village has expanded with the increasing years. The settlement was within the 4 dhokas previously. But it has expanded outside of the 4 dhokas. But till now the guthis, worshipping of the goddess, jatras route has not expanded from the four dhokas. (source: Dabu, 36 group yuba club, 2011)

4.2.2.4 Planning

The settlement pattern of Harsiddhi is of typical Newari settlement. In present Harsiddhi is divided into two wards, 28 and 29. The houses are of 3 to 4 stories. The planning is in courtyard

system, with the major road passing through north & south and other smaller road linkage connecting the road and courtyards. The courtyard is still important space for social interactions, conducting bhoj, playing field, conducting jatras etc. The arrangement of the houses, temples, streets and open spaces have maintained a remarkable balance within the settlement. Houses are clustered along the streets or around the courtyards in Harsiddhi. All the squares public amenities. The amenities presented aredhungedhara, well, ponds, small enclosed shrines etc. Earthquake 2015, ha a devastating outcome. The old houses of the settlement has totally changed the into modernism.

Figure 10: Overall Plan of the settlement

Source: Harisiddhi Engineer's Society

Some are in vulnerable condition that the occupants have moved away from the houses. Public open spaces of Harsiddhi holds much importance for social bonding.

The open space also contains the supportive spaces (elements). Pati (public rest house), water well and Dhungedhara (stone water spouts), enclosed shrine are the most repeated elements in the open space. and Chaitya (Buddhist shrines) and Dabali (an elevated platform).

The open courtyards within the dwellings also have various size. This village is surrounded by 4 main gates. The villagers made 8 ponds, 10 wells, 7 taps, 4 small wells, 43 patis, 46 temples of various god and goddess and 12 big public grounds. The villagers were not allowed to enter with leather shoes as in Pashupati temple but the people felt difficult to obey this rule. So, the people did not follow this rule now. The historical importance of Harsiddhi are guthi, pond and gates which is in its intact form till now with some alterations after earthquake.

Gates:

Historically four gates of Harsiddhi were remarked as a boundary of Harsiddhi settlement, however village has expended over years beyond the gates. According to the history, the early settlements since Kirats of Kathmandu Valley had a definite city boundary beyond which the expansion rarely occurred. There were well laid roads within them and the major road that lead to places outside the city and surrounding lands would have artistic gates constructed to mark the point of entry and exit to and from the city.

The types of open spaces and the elements in Harsiddhi and their functions are as shown in the



Figure 11:Old Dhokas

S.N.	Types of Open spaces	Functions
1.	Nani Chowks	Social interaction, Play area for children
2.	Main chowk (laachi)	Jatras, bhoj, social interaction, marriage ceremony
3.	Streets	Also for daily activities, drying grains (during harvesting season) Also used for commercial activities (small shops) Procession routes for chariots during festival Connectivity
4.	Ghats	Cremation area, Pith (Worshipping God)

Table 1: Open Spaces

S.N.	Elements of Open Spaces	Location	Functions
1.	Patis / sattal (covered area)	Along the street, and in chowks	Communal space/public shelter, Place for Games, Gossip, vajans & Resting space
2.	Hiti (stone spout)	Along the street, in courtyards, large squures	For fetching water
3.	Pond, well	Along the street, in smaller squares	For household purpose, fetching water, washing utensils
4.	Enclosed shrine	In large or small squares, along the street	In the memory of their beloved ones, daily worshipping

Table 2: Elements of Open Spaces

4.4 Socio-cultural Aspects

We all know that Newari culture is very rich and diverse. They believe on several gods and goddesses. They have numerous rituals to be performed from one's birth to death. Hence, celebration is on peak. They celebrate different jatras, dances and festivals. More than that Lalitpur is very famous and rich for its rituals, festivals and jatras.

4.4.1 Social Activities

Harisiddhi Youth Club is the local youth club and is the most active social organization in the area. The club has been actively working in the community since its founding in 2011 AD, and the majority of the local adolescents in the area are members. Regular social events that the group hosts include blood donation campaigns, health fairs, programs for relief, awareness, and cleanup, etc. Along with hosting social events, the club also hosts a number of religious and cultural events locally, particularly during the Jatras. The entire community works together on most sociocultural and religious activities. With the help of all the locals, the "Ta: Chapaa" building, which was almost as old as the temple, has been completely reconstructed which is used for by the club for event management. Along with hosting social activities, the club also hosts a number of religious and cultural events locally, particularly around the Jatras.



Figure 12: Blood donation program at Temple square organized by Harisiddhi Club

4.4.2 Cultural and Religious activities

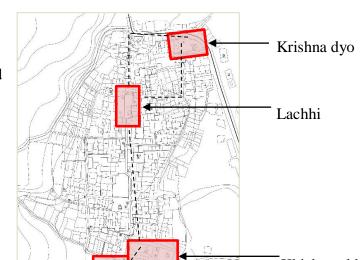
The important social and cultural activities of the village take place in front of the temple or at least, start here. Such activities include 'Gai Jatra', 'Matya', 'Indra Jatra Chaychi', 'Salcha pyaakha:', 'Dyo pyaakha: (Harisiddhi naach)' etc. The temple is more concentrated to the Hindu religion.

The following jatras and festivals carry the identity of whole Harisiddhi. The various festivals celebrated in Harisiddhi are:

- Janai Purnima
- Indra jatra
- Gai Jatra
- Yomari Purnima
- Shree Panchami
- Dashian
- 12 year festival
- Fagu Purnima

4.2.2.1 Indra Jatra

Indra Jatra is the celebration of God Indra, the god of rain and good harvest. It is celebrated for five days, but Samaya baji is offered at specific places on specific days; starting from Ekhachhen on 1st day to Purnachandi on 5th



day. Indra is Lord ofRain and the king of Heaven. Jatra is procession. Indra Jatra is celebration of God Indra's Day. Indra Jatra is festival of Kathmandu, the capital of Nepal. Some believes Indra Jatra is thanking day to lord Indra for the rain. According to others, the festival is celebrated in the honor of Bahirab, who is Shiva's manifestation and is believed to destroy evil.

Figure 13: Indra Jatra Route

4.4.2.2 Gai Jatra

The cow procession festival of "Gai Jatra" is generally celebrated in the Nepalese month of Bhadra (August-September). The entire Gai Jatra festival complex has its roots in ancient times when people feared and worshiped Yamaraj, "the god of death."



Figure 14: Gai Jatra

The ironical sessions associated with the Gai Jatra festival, on the other hand, became a medieval tradition.

4.4.2.3 12 year Festival

The Harisiddhi Mela is one of the most distinctive Barha barsey Melas due to a number of factors. To begin with, the mask dances of Kathmandu Valley have their origins in Harisiddhi, a historic village in Lalitpur. No traditional dance, so the saying goes, can compete with the singing, instrumental music, and overall presentation of Harisiddhi. Second, a unique type of dancing is also performed here, with the dancers wearing only flower headdresses. In Newari, it is known as "Swa Tapuli Pyakha."

The 12 year tradition includes appointment of priests, coloring of masks, dress making, bringing of holy wood, regaining of divine power and the establishment of Kalash. The dance used to be done nonstop for three months in the past. People were

either uninterested in or just unable to watch a lengthy dance, which caused its worth to decline. As a result, the dance was later done in a single day, only including the main events. Therefore, it is currently difficult comprehend the nature of the dance.



Figure 16: Harisiddhi Dance: Swa Tapuli Pyakha

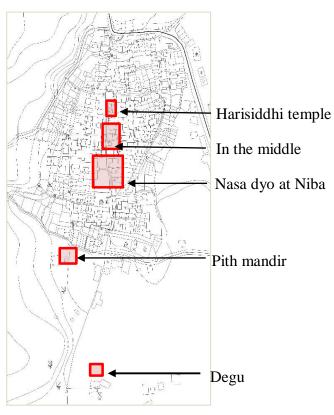


Figure 15: 12 year Festival

4.4.2.4 Fagu Purnima

Holi, an ancient Hindu festival, occurs in late February

or early March. It is a day when the feast of colors is celebrated, and it is said to be named after the mythical demon Holika. The festival lasts one week. However, only the last day is observed with colors by all. Holi is also known as Phagu, where Phagu refers to the sacred red powder and Puni refers to the full moon day on which the festival concludes. People can be seen walking through the streets or riding in vehicles with various colors smeared on them.

Harisiddhi's fagu purnima falls on this day. On this day, gods perform live dances based on the scripts of the Ramayan and Mahabharata while wearing masks of various gods. It is said to have begun 300 years ago.



Figure 17: Mask Dance on Fagu Purnima

4.5 Demographic data of the interviewees

1.) Gender Distribution

The sample size distribution for men and women is based on how frequently people of both sexes use the local spaces in general. The female portion is slightly higher than male portion as more females were there living in home as well as running shops.

Gender	Number	%
Female	58	55.77
Male	46	44.23
Total	104	100

2.) Ethnicity and Local/Renters

Ethnicity	Locals	Renters	No.	%
Newars	95	0	95	91.3
Others	0	9	9	8.6
Total			104	100.00

Since the area is within the traditional town boundary of Harisiddhi, Newars continue to make up the majority of the population. A significant portion of the homes in the area are, however, rented to members of other castes, and as a result, the majority of the survey done in the area is of the Newar caste. Although the majority of renters were non-newars, the survey clearly shows the broad ethnic demography of this community.

3.) Age Group

When conducting surveys for research, a person's age typically impacts how much information and experience they have regarding the topic of the survey. The age of the population could affect the many study factors, thus it is crucial to take this into account. 25% of the survey sample was of people less than 20, 32% of people between 20 and 40, 26% of people between 40 and 60 whereas 18% of the sample is people above the age of 60. Questionnaire survey was conducted for all age group and their opinions were also included in the research through a focus group discussion.

Age Group	Total Respondents	%
<20	26	25
20-40	33	31.73
40-60	27	25.96
>60	18	17.31
Total	104	100

4.) Education

The majority of the interviewees were educated individuals; 21% of the sample as a whole had at least a secondary education. One person who completed a master's degree was among the survey sample's 13% who had studied up to the bachelor's level. On the other hand, 40 out of 104 individuals, or around 38% of the sample, had only completed their secondary education or had never attended any formal education.

Education	Respondents	%
Under SLC	40	38.46
SLC/Intermediate	22	21.15
Bachelors	14	13.46
Masters	1	0.96
Total	104	100

5.) Number of storey

Along with the number of stories and the type of buildings people live in, the home is one of the most essential characteristics of a traditional community because it offers us a basic idea of the people's opinions based on these defined categories. Less than 3 storey old brick homes made up 13% of the interviews, while modern concrete homes made up 87% of the interviewees, with 3 to 4 storey homes making up 25% of the sample, 4 to 6 storey homes making up 60% of the sample, and greater than 6 storey homes making up 3% of the sample.

No. of storey	Type of house	Respondents	%
<3	Old Brick	13	12.5
3-4	New Concrete	26	25.0
4-6	New Concrete	62	59.6
>6	New Concrete	3	2.9
Total		104	100

4.6 Change in Urban Landscape of Harisiddhi

The traditional towns of the Kathmandu Valley maintained their medieval characteristics up until the early modern era, but since then, factors like the economic base's shift from agriculture to services and information, the earthquake, human migration, the population's rapid growth, the variety of lifestyles, the availability of modern building materials and technology, and the haphazard movement and parking of vehicles have significantly altered the form and function of this historic region.

The historic settlement of Harisiddhi has experienced significant landscape alteration since the 2015 earthquake. The natural calamity may have been used as a chance to rebuild the town's environment, but it ended up going against the town's initial concept, which dramatically altered the town's previous scenery. Due to a shortage of funds for new home construction after the earthquake, many lands were unoccupied, and people moved to the town's outskirts. In a historic town where new construction methods were used to build most of the homes and the older methods of building with brick and wood were abandoned, new modern concrete construction methods were adopted. Although the area was a native Newari community, no Newari traditional rules were followed to preserve the area's integrity, which is the main cause of the gentrification that occurred. The town's urban landscape is chaotic and unpleasant as a result of the numerous houses being created without following any rules. Traditional streets and courtyards have been converted to parking spaces due to changes in people's lifestyles and the types of homes they live in, which has increased the vehicle density.

Despite being intact, the structures of the traditional temples have been overtaken by their surroundings. A new chapter in the history of the traditional town has been written as a result of the physical infrastructures that have been added, including new street construction, water supply, solid waste management, and building roads. The ecology was harmed by pollution as a result of faulty road maintenance, which increased traffic, the number of vehicles on the road, and congestion.

As a result, the traditional townscape and surrounding environment have changed as a result of the rising urbanization, which has an impact on local inhabitants' quality of life. The study is divided into three attributes i.e. environment, comfort and safety, and social relationships which shows how the changes in these three categories have influenced the life of local residents.

4.6.1. Environment

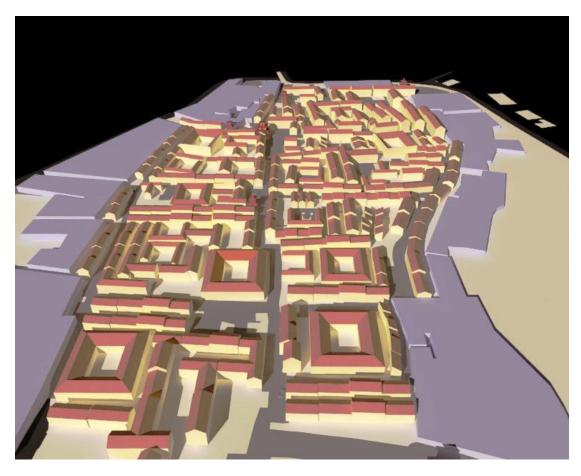
The previous settlement maintains traditional essence of the place, skyline maintained by the main Harisiddhi temple while in the next image we can see the landscape that has changed after earthquake where temple has been dominated by the new concrete houses.



Figure 18: Harisiddhi before earthquake



Figure 18: Harisiddhi after earthquake



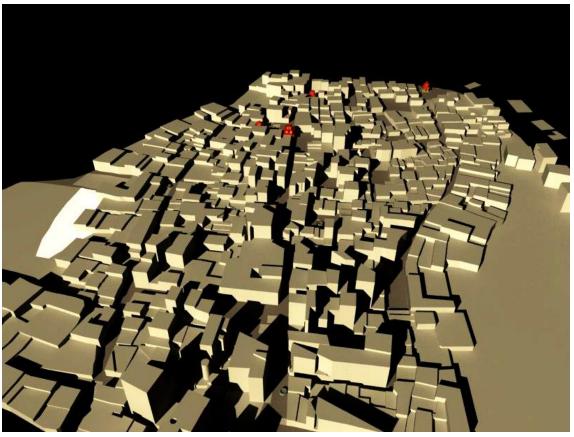
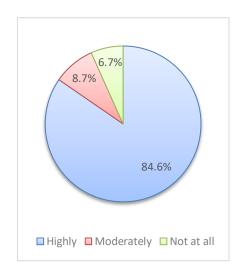


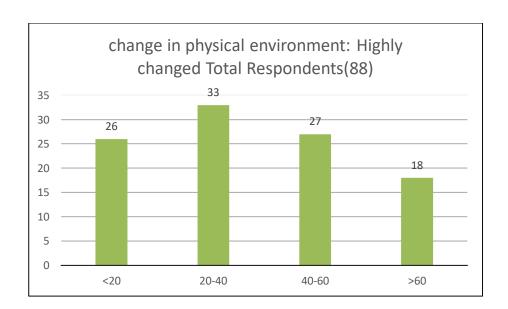
Figure 19: 3D image of physical form of Harisiddhi before and after earthquake

Change of environment overtime

More than 85% of the respondents felt that the place has changed drastically for which the major reason is earthquake of 2015. Out of total respondents who said that physical changes has been highly changed there were 17% of people less than 20, 33% of people were between 20 and 40, 30% were between 40 and 60 and 21% were greater than 60. Therefore the respondents of all age has seen a drastic change in the place where people of more than 60,

40 to 60 said that there has been a vast change in built environment compared to previous condition while the respondents below 20 and 20-40 were more conscious towards the public amenties changes, facilities and maintenance being





The respondents of age more than 60 were fully on the side of highly changed environment which shows that the time and experience of the respondents has been more in the town and therefore there was no response from them for moderately or not at all option.

	Total		Highl	nly Mode		erately	Not a	t all
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	15	17.0	6	66.7	5	71.4
20-40	33	31.7	29	33.0	2	22.2	2	28.6
40-60	27	26.0	26	29.5	1	11.1	0	0.0
>60	18	17.3	18	20.5	0	0.0	0	0.0
Total No	104	100	88	100.0	9	100.0	7	100.0
Total (%)		100.0		84.6		8.7		6.7

4.6.1.1 Buildings

The homogeneity of architectural styles in the past was caused by common lifestyles, the usage of locally accessible building materials such brick, mud, and lumber, as well as common construction techniques. The three-story structures had comparable facades and were symmetrical to maintain the elevation of the neighboring homes. With little difference in building bulk, elevation treatment, and roof line, all the buildings facing the courtyard and the street formed a continuous wall that was connected by similar architectural components, enhancing not only the visual scene but also the sensation of enclosure and volumetric definition.

Buildings were extended vertically to make room for new modes of services as a result of intense demand from rapid urbanization and the increased activities that grew in the town as a result of the shift in location. Buildings' new modern technology underwent alterations as a result of the earthquake. More people's need for more services led to an increase in the number of floors. Due to the conversion of kitchen gardens and small open spaces between building blocks (found in the form of building setbacks) into high-rise structures, there are now areas that are inadequately lit and ventilated.

After the earthquake, the area lost some of its energy, leaving empty plots where the earthquake's wreckage had been, with no homes built on them because of a lack of funds. Instead of selling their plots to locals, they sold them to strangers who built their own homes without adhering to any customary principles. Due to a lack of laws and regulations, new modern house designs have begun to be built outside of the old settlement, which the locals also find to be unacceptable. However, the town's urban landscape is deteriorating daily as a result.

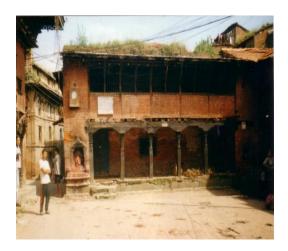




Figure 20: Building typology in the late 80's









Figure 21: Types of building in the area

Out of all respondents, 31 percent were between the ages of 3 and 4 and 51 percent were between the ages of 4 and 6, indicating that the respondents who felt the environment has changed much built their own homes entirely using modern technology. While 81 percent of those who replied in a moderate manner belonged to houses with four to six stories, which shows us that residences with up to six stories experience a significant physical environment shift

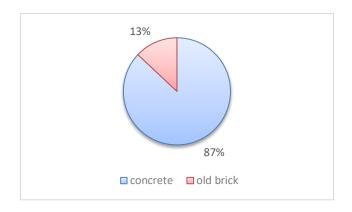
	Total	'otal		nly Mo		Moderately		t all
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	10	13.9	2	7.4	1	20.0
3-4	26	25.0	22	30.6	3	11.1	1	20.0
4-6	62	59.6	37	51.4	22	81.5	3	60.0
>6	3	2.9	3	4.2	0	0.0	0	0.0
Total No	104	100	72	100.0	27	100.0	5	100.0
Total (%)		100.0		69.2		26.0		4.8





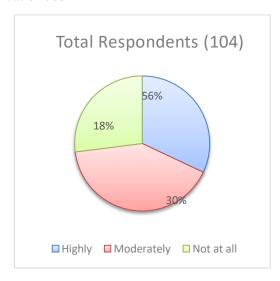
Figure 22: Change in building Facades

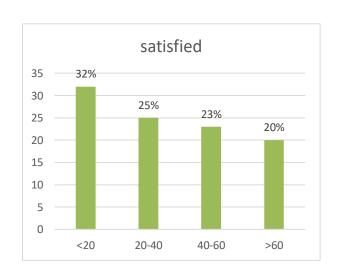
The settlement consists of some old houses which were made of brick mud and wood, while most of the houses are concrete. 87% were concrete houses out of the total respondents while 13% were brick houses who responded for the physical environment changes. The concrete houses themselves changed the existing environment is observed from this survey.

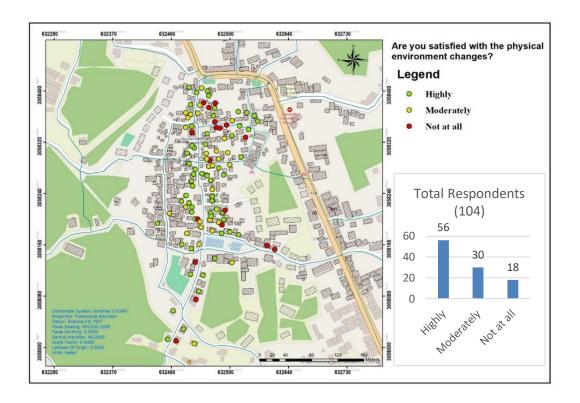


Satisfaction level and issues regarding the physical environment changes

18% of all respondents were completely dissatisfied with the physical environment improvements, 30% were just moderately satisfied, and 56% were extremely satisfied. The physical infrastructures that were constructed over time, including roads, water supplies, open spaces, waterbodies, and solid waste management, were what the majority of contented people were most pleased with. While 18% of respondents were not at all satisfied due to the effects of new infrastructure changes and new construction without any rules and laws, 30% of respondents who were moderately satisfied were not happy with the loss of the traditional environment and lack of authorities for maintaining the traditional dignity. People under the age of 20 were the most highly satisfied, followed by those between the ages of 20 and 40 and 40 and 60, with an age difference of just 2%, and those above the age of 60 being the least highly satisfied.

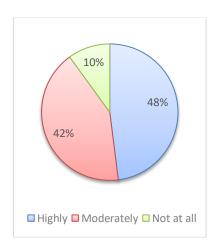




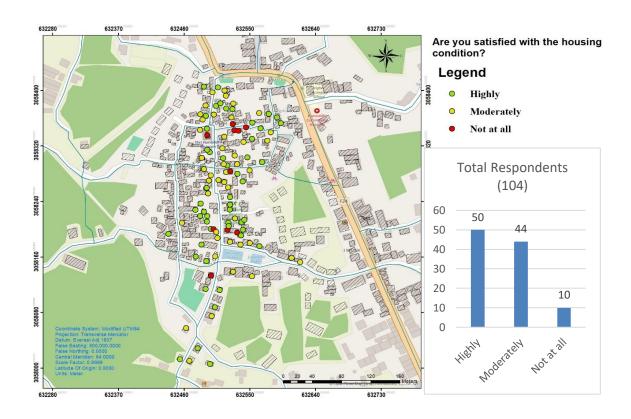


According to the survey, the north side of the neighborhood was closer to the main road and had a higher percentage of dissatisfied residents who were bothered by the noise and air pollution the new road construction was causing. They thought it was more unsettling on the north side, where there are neglected open spaces. The condition of the remaining open spaces is also ignored, and the lack of care on the roadway makes the area unpleasant.

4.6.1.2 Satisfaction with house condition



According to the location, the dissatisfied were more concentrated in the compact street areas where the dissatisfaction was due to the lack of light, lack of space, and lack of ventilation, while the moderately majority were more on the street side. Some also said that building height of the adjacent side was a factor in their dissatisfaction. The house condition was highly satisfied with 48 percent of the total respondents, moderately satisfied with 44 percent, and 10% were dissatisfied. Due to the new house's concrete structure, the settlement's temperature has changed in comparison to the former environment, which has contributed to the loss of thermal comfort. Earlier brick houses were more efficient at maintaining thermal comfort.



4.6.1.3 The Roads and Streets

The primary mode of transportation in traditional streets was walking, which provided greater opportunities for social exchange and engagement. However, in order to accommodate fast-moving vehicles, streets have been reduced to mere transportation instruments and have lost their significance as a place for meaningful public interaction. Numerous detrimental consequences on the shape and functionality of the streets in the area have been brought about by changes in land use, building transformation, and the rise in vehicle traffic. Buildings of diverse heights and architectural styles have entirely shattered the previous relation of street width to building height, volumetric definition, and the unity of the street scene. With no sense of place or identity, the modern street scene is not vibrant as earlier.

There are different road networks to the settlement:

Primary Road: Feeder Road (Satdobato- Godawari Road) which passes through the North East of the study area.

Secondary Road: The branched roads originated from Feeder Road

Local Road: The narrow motorable roads in the core settlement area

Street (Galli): Narrow non motorable roads in the core settlement area

Many people who once lived on the sides of the road have lost their homes as a result of road expansion, and the area around the road has changed to reflect the modern era. On the other

hand, we can see a small temple at the main road, which illustrates how the traditional elements have been displaced by the new modern environment.







Figure 23: Past and present condition of main road

Secondary Streets are connecting to courtyards, nanis, which links different pockets of residential areas. Narrow Alleys connects courtyards to each house which links the residential areas with the farm land.

The roads connected with the settlement can be seen in the figure below which shows us the difficulty people have while going till the road. Another problem that has made it more dangerous for locals to walk and cross the road is haphazard on-street parking. The roads were widened by removing locals' land, and now people who don't live there use them to park their cars. Parking spaces narrow the road, obstruct pedestrian traffic (on roads without sidewalks), and increase the danger of crossing the street.

Interdepartmental coordination:Lack of coordination between the drainage department, water supply department, electricity authority, department of roads, and local metropolitan authority keeps the people from using hassle free road infrastructure.

The wires on the electric poles have decreased the aesthetic of the road and the locality.

The roads are not cleared immediately after the construction/maintenance road, drainage or wat er supply is completed.

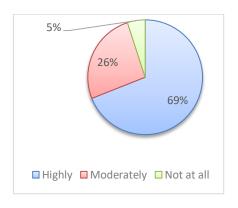


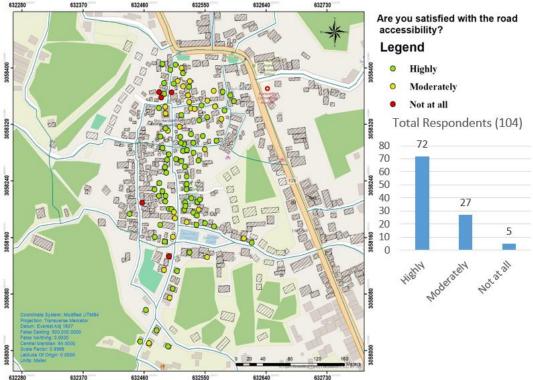


Figure 24: Past and Present Street

Satisfaction regarding road accessibility

As the road conditions has been improved in comparision to earlier, 69% of the total respondents are highly satisfied with the road accessibility, 26% of the total respondents were moderately satisfied and 5% were dissatisfied. The reason for dissatisfaction was that footpaths not been provided in most of the roads. Proper footpath is lacking even in roads that were recently widened. The need of the vehicles have been fulfilled, need of the local people should also be addressed. Traffic on local roads is composed of passing-by/thorough traffic mainly because of congested main roads. Such traffic make the roads unsafe for local pedestrians especially the children and elderly. Limiting such vehicles in the residential areas is suggested. Rapidly increasing number of vehicles have left the locals to live in polluted and congested environment.





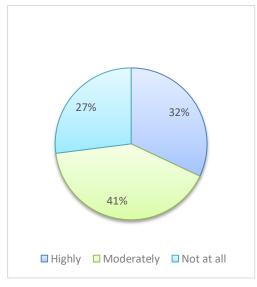
According to the location the people were dissatisfied as the connection between the road to the main gate of the settlement as there is no perfect connection between road and settlement on the

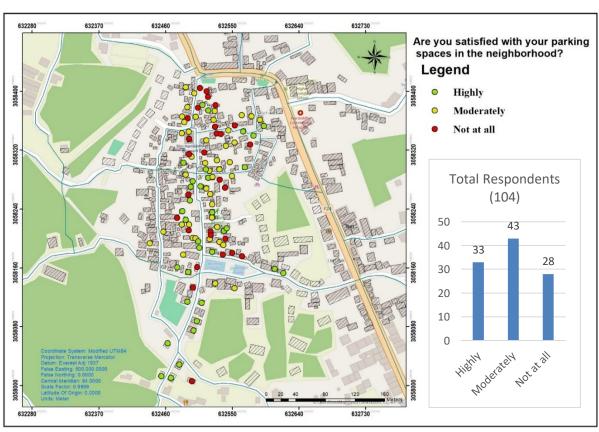
north side. People have to go from south side of the settlement in case of going from vehicles.

4.6.1.4 Satisfaction with parking spaces

Parking spaces in the traditional town has been a topic of discussion as our old settlement planning do not allow space for parking provision but due to the increased rapid urbanization, demands of more services, more facilities has urged people to use the existing spaces for their provision while people are not happy with this because according to the people residing besides main road area at the north side suffer more cases of robbery, vehicles getting lost, therefore a proper space for parking has been an issue for the people.

The total respondents highly satisfied were 41% while moderately satisfied were 32% and dissatisfied were 27%. From the total respondents who were dissatisfied were 61% female and 39% male because of the females having their own vehicle in the neighborhood finds it difficult for the provision of parking spaces.





According to the location, the people residing at the north side of the road feel more dissatisfied with the parking spaces in the neighborhood while others from those residing in the inner courtyards were also found dissatisfied, as they need a proper parking space with high security in the neighborhood.

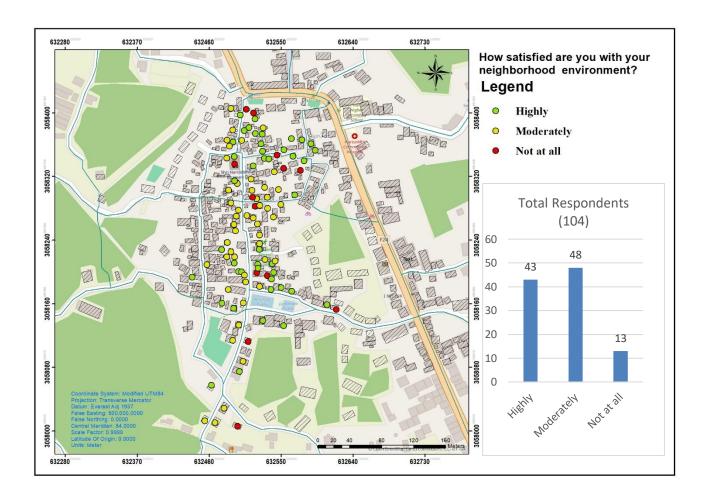


Figure 25: Parking on the streets and temple area

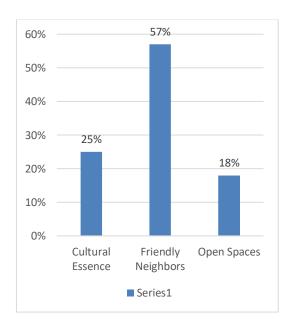
4.6.1.5 Neighborhood Environment(Public Amenities)

The socio demographic makeup of the neighborhood and its people, as well as the connections, gatherings, and social processes that take place among those who live there, are all considered to be components of the area's social environment. Neighborhood environment is directly proportion to the quality of life of the residents whose effect determine their social wellbeing. It includes different public amenities present in the neighborhood are much satisfied or not by the residents, the mode of transportation, the surrounding facilities which include public spaces, public services like water supply, solid waste management, being an earthquake sensitive areas, whether the town is now ready or stable for those kind of natural disasters.





People were not moderately satisfied with the majority at the inner core area of the neighborhood as there were people who resides there and has seen the changes occurring in the neighborhood as they thought of loss of ethnic culture in the neighborhood.



56%
50%
44%
40%
30%
20%
10%
Pollution built environment
Series1

Reasons for good environment

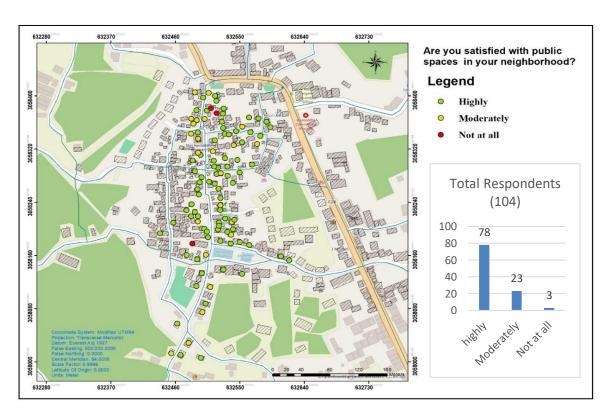
Reasons for bad environment

While conducting survey, different reasons were there for there satisfaction which included friendly neighbors with 57% of the total respondents, 25% cultural essence and 18% responded open spaces for their good environment in the neighborhood which shows that for a good environment these are the important points to keep in mind. The majority of females were more high in case friendly neighbors and cultural essence with the result of 53% and 73% while there was less females for open spaces with only 18%.

Like every, thing has some pros and cons, the respondents who were not satisfied with the environment has the basic problem with the pollution in the environment and the built environment around them. The term "built environment" refers to the context that has been created by humans and includes things like houses, buildings, zoning, roadways, walkways, open areas, transportation alternatives, and more. It is described as "the human-made space in which people regularly live, work, and play." The total of 56% of respondents gave pollution as an crucial thing that needs to be work out for better environment while 44% gave built environment as a cause for bad environment which included building designs, less maintenance of available open spaces, unmanaged streets.

4.6.1.6 Public Spaces

Social, physical, and psychological characteristics were given more weight in the literature for evaluating the roles and functions of public spaces in the setting of traditional town, where there are few and undervalued public places. The results of the respondents can be seen that the majority of people were satisfied with the public spaces present in the neighborhood but what they were no satisfied was the maintenance, facilities and condition of the public spaces.



Relating with the public spaces, the facilities it serves to different group of people is one of the major concern. Out of total respondents, 56% were highly satisfied with 44% male respondents , but there were 52% of the moderately satisfied female as they some of them were not satisfied due to the the lack of preferences given to the females , there should be an open unbiased environment for girls to use those public spaces , due to community thinking the females do not use the places much as it should be used while the teenagers were more eager for more facilities to be provided with the playing equipments like basketball playing, football playing, as from focal discussion group it was known that open space is going to be used as parking spaces for those not having in the house, while youth and teenagers are against this decision because it can ruin the beauty and scenery of the place.

	Total		Н	lighly	Mod	derately	No	t at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	34	43.6	11	47.8	1	33.3
Female	58	55.8	44	<mark>56.4</mark>	12	52.2	2	66.7
Total No	104	100.0	78	100.0	23	100.0	3	100.0
Total(%)		100.0		75.0		22.1		2.9

Satisfaction with the available facilities for recreation

All County structures, open spaces, special interest areas, and aesthetic areas are collectively referred to as "recreational facilities" in this survey. The guidelines for parks and recreational facilities must be followed while providing recreational facilities.

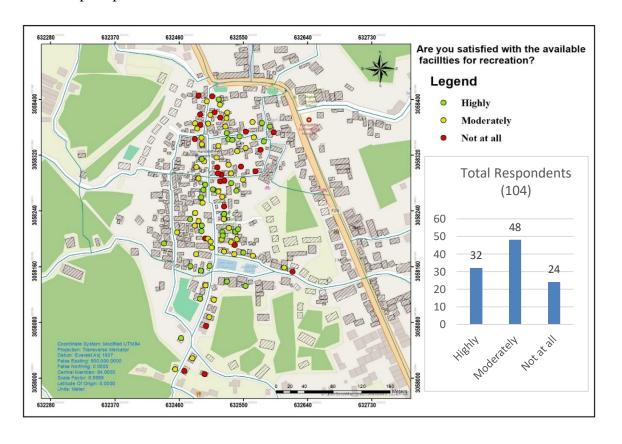
The survey was done for knowing are there any facilities related to recreation purpose as there are lots of open spaces, special areas including water bodies, temple space, patis etc , in the neighborhood.



From the survey, it was seen that 46% of the total respondents were moderately satisfied which meant that there were not that much satisfied facilities being carried out for recreation purpose. while 23% of the total respondents were dissatisfied with the recreation facilities.

	Total		Н	lighly	Mod	derately	Not at all	
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	12	37.5	22	45.8	12	50.0
Female	58	55.8	20	62.5	26	54.2	12	50.0
Total No	104	100.0	32	100.0	48	100.0	24	100.0
Total(%)		100.0		30.8		46.2		23.1

Out of total respondents, 62% of females were highly satisfied, which is higher than male portion because females mostly live in the settlement as housewives and they don't go any other outdoor places while 50% of the females were dissatisfied and 50% males were also dissatisfied which shows that there are same percentage of dissatisfaction in case of recreation facilities in the neighborhood. The perception of females were under their opinion that should be more female-friendly while men were more concern in popularizing the open spaces present in the neighborhood, they wanted to make Harisidhhi as a vibrant place as it is rich in culture and different open spaces.



According to the location, the majority of respondents dissatisfied were at north and north east side of the settlement because there are two open spaces which also includes pokhari which are near to the roadside is not being maintained, no proper rules are there for roadside open space, its being neglected, if those spaces are maintained properly that junction can be a vibrant junction as it lies at the roadside area.





Figure 26: Existing open spaces at the roadside





Figure 27: new pond construction at temple space

The new construction is being carried out for the maintenance of the historical important pond near the temple complex, but some have concern about its construction technology, they say that new concrete technology using stone has decreased the level of water retention which has made the level of water in the settlement less as compared to earlier times. The new construction has affected the sentiments of pujaris of the settlement as well.

4.6.1.7 Public Services

Any service designed to meet the specific needs of the total population of a community is considered a public service. The neighborhood also have different public services and which is important for the better quality of life of the residents. The services we will discuss in this survey will be watersupply, solidwaste management, watersewerage, earthquake escape management, fireescape management.

4.6.1.7.1 Water Supply

The settlement has number of water bodies:

- 1- Dhalko Pukhu
- 2- Dyo Pukhu
- 3- Khicha Pukhu
- 4- Lakha Pukhu
- 5- Pukhusi
- 6- Krishna Dyo Pukhu















Figure 28: Pukhus in the settlement

2.



Figure 29: wells in the settlement

Number of Wells in the settlement -8



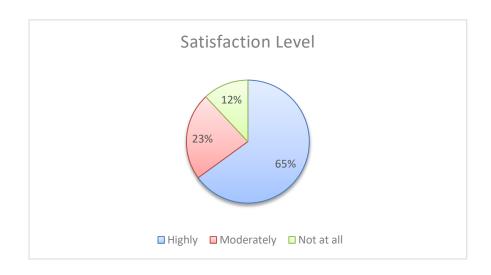




Water treatment facilities, treated water storage and distribution systems, water storage infrastructure, and drinking water are all included in the drinking water supply system. Development and conservation of source waters Management of water supplies and connectivity Demand management.

After conducting the survey, it was found that 65% were satisfied with the watersupply services, while 23% were neutral with the answer and 12% were totally dissatisfied because some of the respondents said that the after earthquake there has been a system of water supplying one or two days per week, that is also not regular while before this system there were communal taps in the settlement which were in use and function which is also present today but are not in use as those communal taps has been cut off and are no more of use while earlier those junctions were meant to be a place for social attraction where more number of females use to interact with each other and was a sort of good time for sharing time with the people of own neighborhood. Females were 42% neutrally satisfied and 58% were totally dissatisfied were shown from the results.

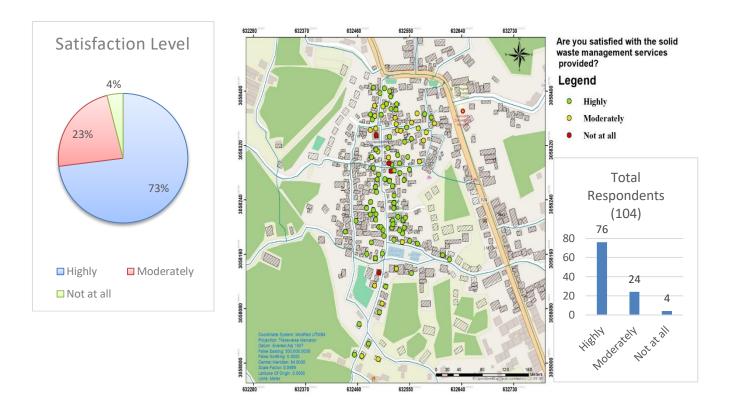
Nowdays, people are more isolated and the water supply system has also effected the social interaction in between people while there was daily water supply in those communal taps.



Attributes		Total]	Highly Me		Moderately		ot at all
	No.	%	No.	%	No. %		No.	%
Sex:								
Male	46	44.2	27	39.7	14	58.3	5	41.7
Female	58	55.8	41	60.3	10	41.7	7	58.3
Total No	104	100.0	68	100.0	24	100.0	12	100.0
Total (%)		100.0		65.4		23.1		11.5

4.6.1.7.2 Solid Waste Management

The processes and procedures necessary to manage garbage from its creation to its ultimate disposal are referred to as waste management (or waste disposal). Each sort of waste has a different way of being managed and disposed of, whether it be solid, liquid, or gas. Garbage management aims to lessen the negative consequences of waste on aesthetics, the environment, or human health. The "3 Rs"—Reduce, Reuse, and Recycling—are referred to as the "waste hierarchy," which groups waste management tactics into categories based on how desirable they are for minimizing trash. Out of total respondents, it was observed that 73% were highly satisfied as the management has been proper compared to earlier management while 23% were moderately satisfied because there is no door to door service and one has to go to outside of the settlement upto road so there was problem as sometimes they miss to go upto the waste truck.



Seeing from the location, the majority of respondents at north side close to roadside were moderately satisfied as they have to come to south side of the settlement for garbage throwing as the waste collecting vehicle comes at the south side. As there is no door to door collection, the people from northside of the settlement found it difficult majorly for people of age greater than 60. Respondents were more concerned about the





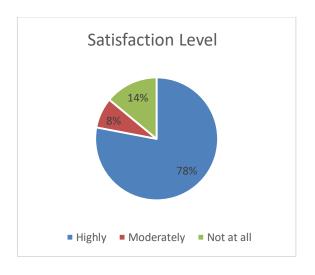
Figure 30: waste dumping in the neighborhood

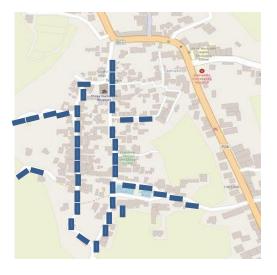
4.6.1.7.3 Water Sewerage

The infrastructure that uses sewers to transport sewage or surface runoff (stormwater, meltwater, and precipitation) is known as the sewerage system. It includes parts of the combined sewer or sanitary sewer including receiving drains, manholes, pumping stations, storm overflows, and screening chambers. Sewerage terminates at the point of discharge into

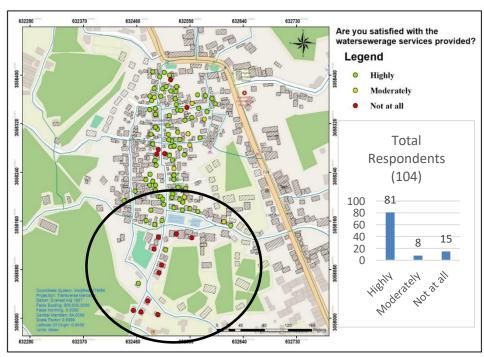
the environment or at the entrance to a sewage treatment facility.

The system of chambers, pipes, manholes, etc. is what transports sewage or storm water. All the houses are along the streets served by **sewer lines** for stormwater, black and grey water. The grey and storm water is saved making like a pond and then **reusing** it for other function after the treatment like agriculture, farming etc.

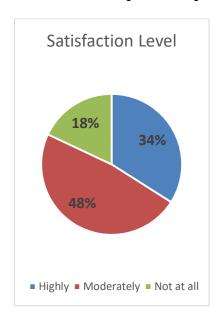




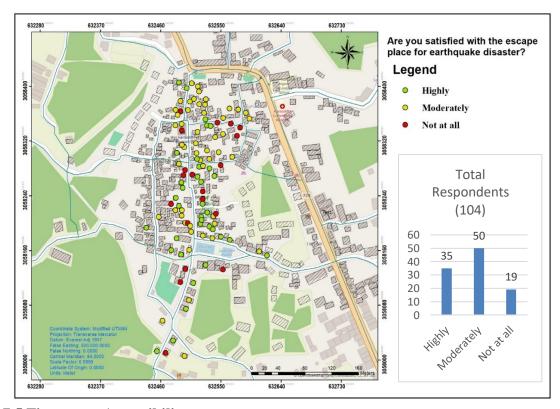
The sewerage system was satisfied by the respondents with 78% while 14% were dissatisfied. The 14% of the respondents were those at southern part of the area which is out of the core settlement area. The people were not satisfied as there were no sewerage system in that area due to new house construction in that area, there is a need of proper sewerage system in that area also. The core settlement area were mostly satisfied with the sewerage system as it was seen that it has proper system in the settlement and that has enhance the quality of life.



4.6.1.7.1.4 Earthquake Escape



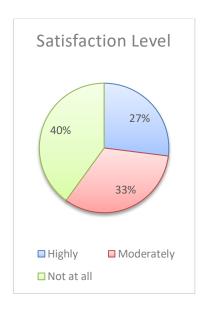
Harisiddhi was affected by the earthquake and is presently recovering, but the town has undergone significant change since then. The people are afraid of another natural calamity that will negatively affect their quality of life, and they are concerned about how they will get away if there is another earthquake. As a newari village, the town would be in need of an evacuation route in the event of another earthquake because the buildings are close together, the streets are narrow, and the dwellings surround the courtyards. Looking at the map, we can see that the majority of the moderately dissatisfied residents were on the north side of the settlement and that they felt more risk in the inner courtyards and compact street's houses because there is an open space nearby the southern part of the settlement but not on the north side, where there are farmlands and some open space that can be used as an evacuation area in case of natural disasters.

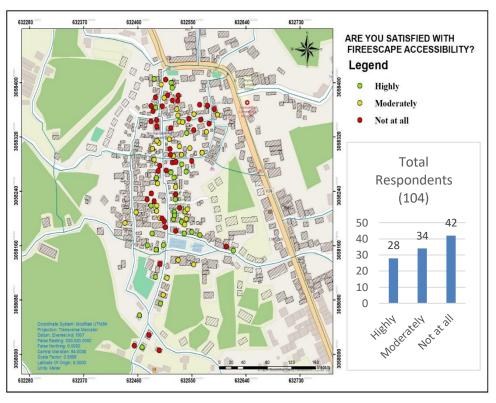


4.6.1.7.5 Fireescape Accessibility

Harisiddhi being a traditional town, has compact settlement which hinders in the mobility including inner small streets and inner courtyards. The survey conducted in this case gave result of respondents highly dissatisfied with 40% while 33% were moderately satisfied and only 27%

were highly satisfied.



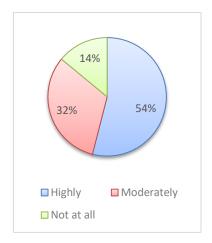


The majority of respondents, as seen on the map, were mostly located in the settlement's center, which included inner compact streets and courtyards, and on the settlement's northern edge. This is because there is no proper access for fire escape emergencies to enter the settlement, and the traditional gates' height prevents emergency team vehicles from entering the settlement. As a result of the installation of stone pavements, which has decreased the water retention level, there were formerly more communal taps and a higher water level in the wells. As a result, the loss of those facilities indirectly affected the fire emergency facilities. Some residents relied on the two water bodies and the road access in the southern section of the hamlet as their sources of fulfillment.

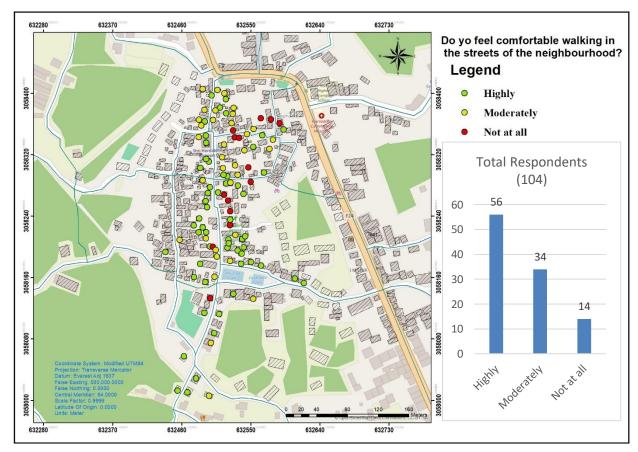
4.6.2 Comfort and Safety

4.6.2.1 Comfort walking in the streets of the settlement.

54% were highly satisfied for walking on the streets of whereas 32 % were moderately satisfied and 14% were dissatisfied. The different aged people were having different perception for their discomfort. The respondents of age between 20-40 and 40-60 were highly comfortable with same percentage of 29% with respect to the respondents <20 and >60 which had a genuine reasoning as respondents greater than 60 are old age people and respondents less than 20 are teenagers who felt 50% dissatisfaction out of overall dissatisfied respondents.



	Total		Highly		Moderately		Not at all	
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	15	26.8	4	11.8	7	50.0
20-40	33	31.7	16	<mark>28.6</mark>	15	44.1	2	14.3
40-60	27	26.0	16	<mark>28.6</mark>	9	26.5	2	14.3
>60	18	17.3	9	16.1	6	17.6	3	21.4
Total No	104	100	56	100.0	34	100.0	14	100.0
Total (%)		100.0		53.8		32.7		13.5



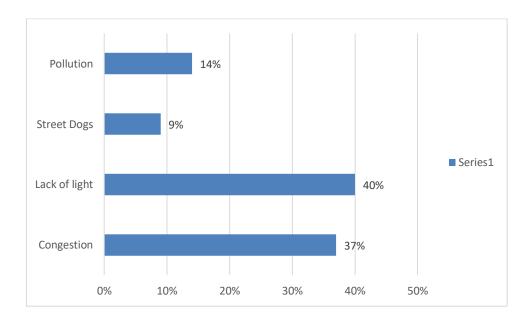
According to the location, the majority was dissatisfied on the area where streets were compact, and on the north side of the road side area where there were uncomfortable steps for the old age people to travel down the road.



Figure 31: Street entrance location on the north side and congested building design

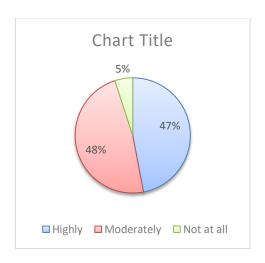
Reasons for discomfort walking on the streets

There were many reasons why people felt uncomfortable strolling on the streets, but lack of lightis one of the most common ones, cited by 40% of respondents. This was especially true in areas with small streets that were overshadowed by large buildings. Children complained that they didn't have enough room to move around or go cycling in the neighborhood properly because of the traffic, which is caused by parking along the street, according to 37 percent of respondents. Additionally, 14 percent of respondents cited streetside pollution, and 9 percent cited unmanaged street dogs because, despite the neighborhood's growing number of street dogs, no action has been taken to address this issue. Children and those over the age of 60 experience fear and discomfort when walking down the street.



4.6.2.2 Comfort doing daily activities in the neighborhood

Daily activities include daily life activities which includes going to hospitals, schools, groceries, playgrounds etc. 47% were highly satisfied with doing daily activities, while 48% were moderately satisfied and 5% were not at all satisfied. While talking about the activities different age of people have more different views which is conducted through this survey.

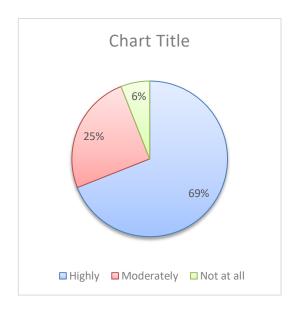


	Total	Total		Highly Mod		erately	Not a	t all
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	10	20.4	16	32.0	0	0.0
20-40	33	31.7	17	34.7	15	30.0	1	20.0
40-60	27	26.0	16	32.7	10	20.0	1	20.0
>60	18	17.3	6	12.2	9	18.0	3	60.0
Total No	104	100	49	100.0	50	100.0	5	100.0
Total (%)		100.0		47.1		48.1		4.8

out of highly satisfied respondents, only 12% were satisfied of people greater than the age of 60 while age between 20 and 40 were having 34% highly satisfied because old age people found difficult to travel for their daily lives activites which is due to the lack of proper mode of transport to reach to other places and less number of shops in the settlement urges residents to go outside of the settlement.

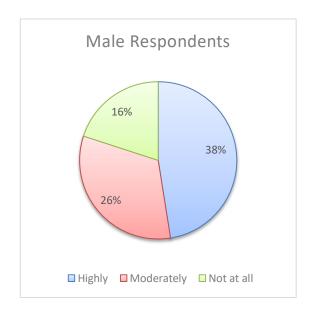
4.6.2.3 Safety Perception

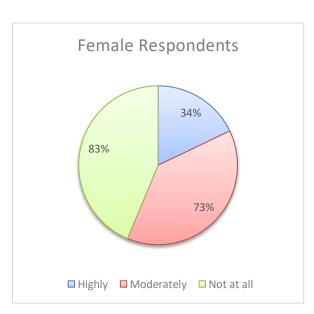
Safety in the neighborhood determines the quality of life they spend living in the environment. The survey conducted that overall safety satisfaction of the settlement is 69% highly satisfied due to the friendly neighbors and good friends. The bond between them serves as a feeling of security among each other. The settlement faces robbery problem, therefore they are afraid in the neighborhood.



Sex wise safety perception

The safety is equal for both males and females with respect to each age group, the survey showed that male respondents were 38% highly satisfied while 16% were dissatisfied, the problem of robbery, lack of cctvs provision lead to these activities while females were 34% highly satisfied and 83% were not at all satisfied due to lack of lights in the inner streets, which leads to hesitation while walking and a sort of uneasiness while walking on the streets.



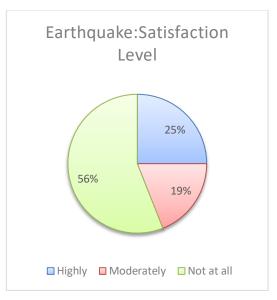


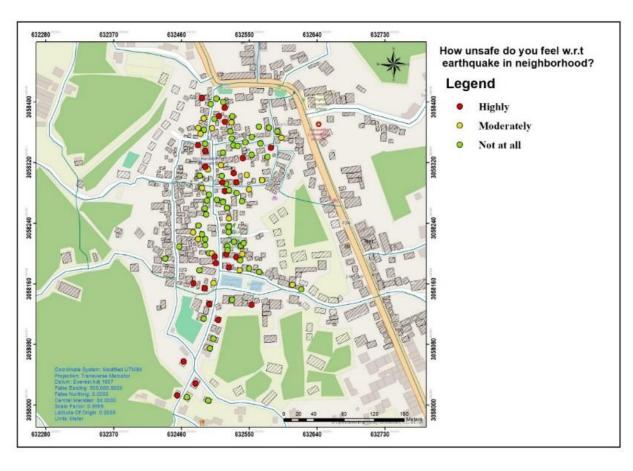
4.6.2.3.1 Unsafe feeling due to earthquake and fireescape

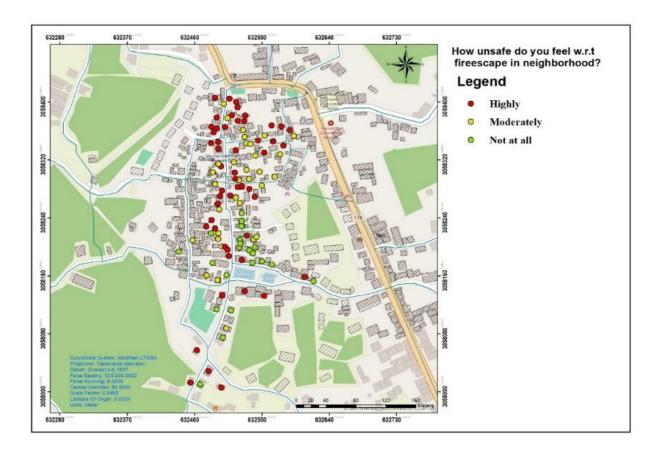
Respondents felt unsafe due to the earthquake and fire exit emergency as it is a traditional town which has faced crisis when earthquake strikes. Out of total respondents, 25% felt highly unsafe,19% felt moderately unsafe while 56% felt totally safe of which mostly were the houses in between compact streets or densed courtyards as there were still some houses left withouy

any reconstruction due to financial problems. Incase of fire exit emergency, people residing at the north side felt more risk because fire emergency vehicle is not accessible at those areas and the only provision for rescue becomes the waterbodies that are present in the settlement while those waterbodies are also now depleting due to lack of maintenance and low water level. Out of total respondents, only 20% felt safe in the neighborhood while 31% were moderately unsafe and 49% of the total respondents felt highly unsafe.









4.6.3 Social Relationships

4.6.3.1 Courtyards(Chowks)

The courtyards (Nep. Baha, bahi, chowk, and nani) scattered throughout Kathmandu's old towns are one of their distinguishing features. These courtyards, which are a component of the street system, were the focal point of social settings where people congregated to engage in a variety of daily activities like sunbathing, socializing, washing dishes and clothes, and playing with children. Additionally, feasts at significant social events and other special festivities during religious events were held in courtyards. Although there are still some of the area's historic courtyards, the older urban form and the harmony between built-up and open areas have been greatly altered by uncontrolled infill and encroachment.





Figure 32:a)Bike parked at street junction chowks b) Car parking at the temple space lachi chowk

Buildings that are taller than is acceptable have obstructed light and ventilation, making courtyards dark and damp. The prior period's feeling of containment has changed to one of suffocation. Lack of light also has a psychological impact because individuals hesitate to use them because they feel insecure. The invasion of courtyards by parking that is used exclusively for one purpose has made them less usable for other activities, and business activities have made them less private, making people less likely to utilize them for socializing and daily activities. Courtyards are becoming less desirable for socializing, communication, and celebration of events due to all of these issues, which limits their ability to bring people from various social groups together and, as a result, weakens social bonds and public life.

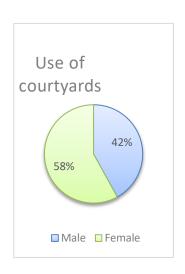


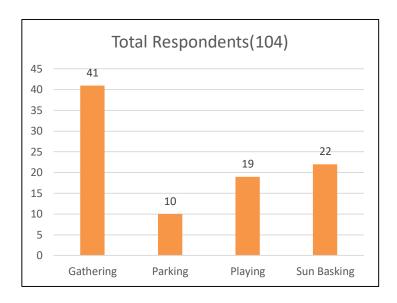


Figure 33: Temple space landscape change

Purpose of courtyards in the neighborhood

Out of all respondents, 45 percent said that courtyards are the primary location for gatherings on daily activities and on the occasion of festivals/jatars, with the 20 to 40 and 40 to 60 age groups making up the majority of those who said this. Parking, on the other hand, was mentioned by 11 percent of the total respondents, who were mostly those who lived in courtyards. The most significant activity is sunbathing, which is equally significant for all age groups with the exception of those under 20 who responded with 5% of the total. The portion of females were high than male portion in context of using courtyards as a social space as females use these spaces more w.r.t males.





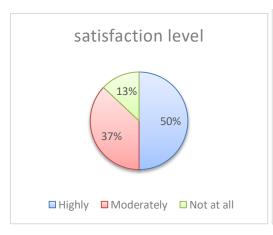
	Total		Gat	herings	Parking		Pl	Playing		Sun Basking	
Age:	No.	%	No.	%	No.	%	No.	%	No.	%	
<20	23	25.0	7	17.1	3	30.0	12	<mark>63.2</mark>	1	4.5	
20-40	30	32.6	13	<mark>31.7</mark>	4	40.0	4	21.1	9	<mark>40.9</mark>	
40-60	20	21.7	9	<mark>22.0</mark>	2	20.0	1	5.3	8	<mark>36.4</mark>	
>60	19	20.7	12	29.3	1	10.0	2	10.5	4	18.2	
Total No	92	100	41	100.0	10	100.0	19	100.0	22	100.0	
Total (%)		100.0		<mark>44.6</mark>		10.9		20.7		23.9	

While conducting services, the old people of age more than 60 gave the value of courtyards with respect to the social and cultural values that is performed timely in the neighborhood, but youth people were no less participated in this discussion, as there is a good enthusiasm in the youths of Harisiddhi to let their place more vibrant and making their culture preserved for upcoming generations. Children were seen more keen towards their playing activities, they were more concern about the facilities for playing provided. Alongwith children females were also seen telling about the use of courtyards as they use to use it earlier for dring grains when farming was one of the most done occupation of the which has now decreased due to the increased urbanization, demand of more land converting into plots, farming is now not a major occupation as it was earlier.

Connecting the Survey with the activities that are performed in the courtyards, different activities survey were also conducted to know the reasons behind the use of courtyard and its changing effect on the daily activities or socio-cultural activities which is important for the better quality of life of the people.

Satisfaction with your Jatra (festivals) that happen in the neighborhood w.r.t social spaces and building designs

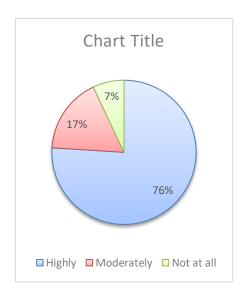
The total respondents were 104 out of which 50% were highly satisfied with the present condition, while 37% were moderately satisfied and 13% were dissatisfied. The youths were seen more keen towards the preservation of their cultures and jatras that were held timely in the nighborhood, they were moderately satisfed because the the volume of existing space was same as earlier but there can some rules to not overruin those spaces which is caused due to the entry of vehicles in the temple chowk area, vehicle parking, which can damage the brick surface of the chowk which needs to be preserved. As jatras and festivals are one of the important thing to the locals residing there, it was seen that renters were not much interested in this query which also means that the different ethnic people were not interested in such issue and were also dissatisfied from the spaces that are there which doesn't include them due to less majoroity of different ethnic people, there are less friends also which has effected their social life.





4.6.3.1 Attachment towards neighborhood

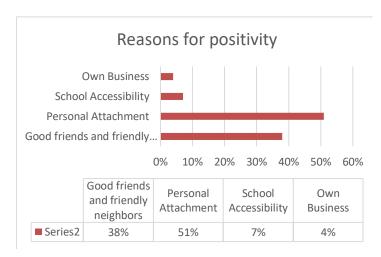
The attachment towards neighborhood includes personal attachment with the place. While conducting survey, 76% were highly attached with the neighborhood and 7% percent were not at all attached. More percent of locals were attached compared to renters as the locals were mostly the newars inheriting their since early times. Respondents of age group 20-40 and 40-60 were highly attached towards neighborhoods which shows that they have more preference towards their culture and place.



	Total		Highl	y	Moderately		Not at	all
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	13	16.5	11	61.1	2	28.6
20-40	33	31.7	27	34.2	4	22.2	2	28.6
40-60	27	26.0	24	30.4	3	16.7	0	0.0
>60	18	17.3	15	19.0	0	0.0	3	42.9
Total No	104	100	79	100.0	18	100.0	7	100.0
Total(%)		100.0		76.0		17.3		6.7
Residency	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	76	<mark>96.2</mark>	15	83.3	4	<mark>57.1</mark>
Renters	9	8.7	3	3.8	3	16.7	3	42.9
Total No	104	100.0	79	100.0	18	100.0	7	100.0
Total(%)		100.0		76.0		17.3		6.7

4.6.3.2 Positivity living in the neighborhood

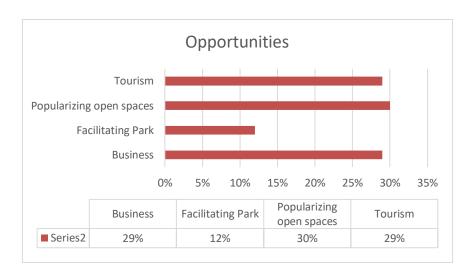
The positivity among the neighborhood resulted in 69% of the total respondents who were highly satisfied while 24% were moderately satisfied and 7% were not at all satisfied from which there were various reasons that they felt positive living in their neighborhood. 51% of the total respondents were personally attached with the neighborhood which gives them positive feeling while 38% were having good bond with friends and neighbors, that gives them feeling of togetherness, 4% were more focused on their business purpose and 7% were due to their accessibility to school from which mostly responded were renters and the age group of people less than 20.



Total		frien fri	Good friends and friendly neighbors		Personal Attachment		School Accessibility		ness	
Age:	No.	%	No.	%	No.	%	No.	%	No.	%
<20	23	27.1	9	28.1	8	18.6	6	100.0	0	0.0
20-40	26	30.6	10	31.3	16	37.2	0	0.0	0	0.0
40-60	24	28.2	9	28.1	11	25.6	0	0.0	4	100.0
>60	12	14.1	4	12.5	8	18.6	0	0.0	0	0.0
Total No	85	100	32	100.0	43	100.0	6	100.0	4	100.0
Total(%)		100.0		37.6		50.6		7.1		4.7

4.6.3.3 Opportunities in the neighborhood

The traditional town inherits its culture and historical significance alongwith various traditonal elements that enhance in the beauty of the settlement. While conducting survey, asking opinions on their neighborhood gave list of opportunities that can flourish the environment of the town beautifully because it has the elements in the traditional town, what necessary is to highlight those elements and making the town more vibrant with flow of more number of people and intacting youth and upcoming generations in their own traditional town Harisiddhi. Out of total survey conducted, 30% were on the side of popularizing open spaces that are present in the town and are being neglected. 29% were on the favour of increasing the tourism in the traditional town and making the flow of people more in the town. 295 were dedicated to their business purpose having vegetable shops on which whole settlement mostly rely on, grocery shops while some of the females were seen making straw products and selling them. 12% were more interested in facilitating and making park more enhancely.



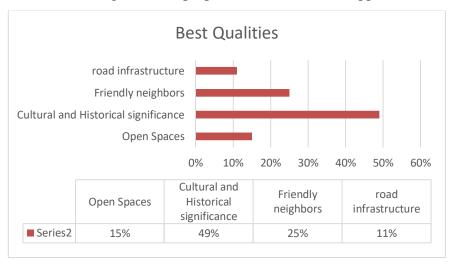
Females were more dedicated to business seeing it as an opportunity for themselves while 53% were females who sees business as an opportunity. Alongwith that also, popularizing open spaces were also responded by 51% of females who sees it as an opportunity. The age group of people less than 20 were 92% respondents saying facilitating parks can make their life and surroundings better. The age of people between 20-40 and 40-60 were similar seeing business as opportunity. The age group of 20-40 also responded with 40% who said that tourism can be one of the best opportunity for Harisiddhi.

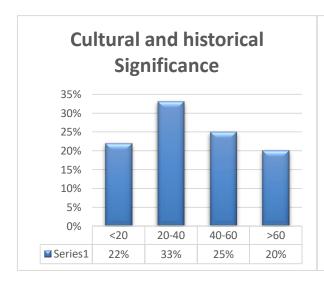
	Total		Business			Facilitating Park		Popularizing open spaces		Tourism	
Attributes	No.	%	No.	%	No.	%	No.	%	No.	%	
Sex:											
Male	46	44.2	14	46.7	8	61.5	15	48.4	9	30.0	
Female	58	55.8	16	<mark>53.3</mark>	5	38.5	16	<mark>51.6</mark>	21	<mark>70.0</mark>	
Total No	104	100.0	30	100.0	13	100.0	31	100.0	30	100.0	
Total(%)		100.0		28.8		12.5		29.8		28.8	
Age:	No.	%	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	6	20.0	12	<mark>92.3</mark>	2	6.5	6	20.0	
20-40	33	31.7	9	<mark>30.0</mark>	0	0.0	12	38.7	12	<mark>40.0</mark>	
40-60	27	26.0	11	<mark>36.7</mark>	0	0.0	9	29.0	7	23.3	
>60	18	17.3	4	13.3	1	7.7	8	25.8	5	16.7	
Total No	104	100	30	100.0	13	100.0	31	100.0	30	100.0	
Total(%)		100.0		28.8		12.5		29.8		28.8	

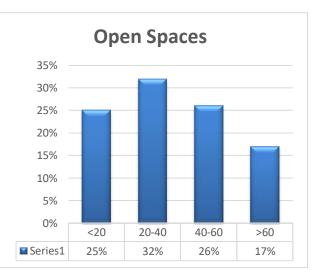
4.6.3.4 Best qualities about the neighborhood

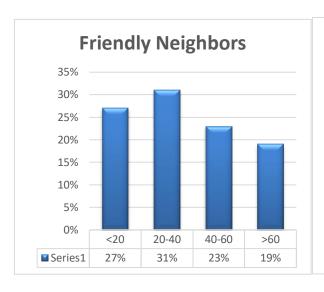
Harisiddhi, the traditional town is one of those newari towns that possess its own cultural and historical significance which is followed by the respondents till date now. The residents of the

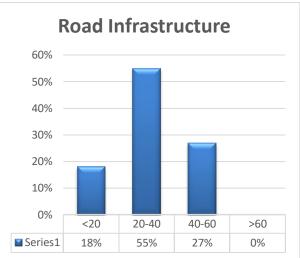
town have special place for their culture and place in their heart. Talking about different age people, every age group of people are somehow attached with their own place, they want the place to grow and flourish the traditions they follow. Children of age below 20 like their neighborhood and want to grow here if there comes more opportunities and growth. People of age between 20-40 are even more dedicated in enhancing their culture and keeping it alive for upcoming generations. Road infrastructure has also been one of the best qualities in comparision to earlier condition, it has made easy to access other places, while age group more than 60 did not responded on the road condition as they said that it has ruined our culture and has been issue for people residing on the road sides who were habitants of the houses that has been neglected while making road. No proper laws and benefits happened to those people.











The following graph shows how different groups of people have responded with respect to the best qulaities they see in their neighborhood.

CHAPTER 5

5.1 Findings and Conclusion

5.1.1 Environment

With physical changes of the environment, the settlement has been totally changed with comparision to the earlier settlement. Earlier farming was one of the important occupation, accordingly were the distribution of spaces but today due to rapid urbanization, the farming areas have been converted into plotting, while after earthquake there have been many vacant plots that are being sold to outsiders which has disturbed the integrity and unity of the traditional town.

Home Environment

The demand of more space and services caused the structure to be divided vertically, lowering the amount of usable space. This required the placement of necessary amenities like stairs and restrooms in the already divided building. During the questionnaire study, the lack of space was determined to be the main difficulty pertaining to the home environment, and residents were more likely to associate it with it than those who were renting because all residents were Newars while renters were of other ethnicities. Additionally, it was the primary driver of natives' emigration. By projecting the floor towards the street and courtyard starting at the second level and upwards, the majority of the area's modern structures have defied the building ordinances and increased the space. The second important concern with regard to the home

environment is the reduction of light and ventilation due to the projection of floors, which has increased floor space to some extent. The sun light and ventilation in the building have dramatically decreased as it has grown in height, especially on the lower levels, making the area less hygienic and livable. Since reinforced cement concrete with brick walls and cement plaster are not ideal from a thermal comfort point of view, the problem has been made worse by a lack of sunlight and ventilation mixed with the use of modern construction materials. Long-term lack of sun exposure can have negative health impacts, including weakened bones, foot abnormalities, some types of cancer, depression, skin disorders, weight gain, and cognitive impairments. Most elderly persons over the age of 60 bear the brunt of this because they typically reside in lower floors, some of which receive no sunlight at all, and lack access to higher floors and patios. The interior spaces have become nearly inhabitable throughout the winter months due to increased wetness and inadequate lighting and ventilation.

Outdoor environment

In traditional towns, outdoor spaces like streets and courtyards were the center of social activity, with the majority of daily activities taking place there. However, as the area has grown vertically due to the construction of tall buildings with projection beginning at the second floor, the amount of light and ventilation available in the streets and courtyards has significantly decreased. The effect has been a decrease in the habitability and hygienicity of the streets and courtyards that were once used for socializing and other daily activities.

Courtyards

The effect of modern transportation requirements was also apparent in the built environment, and parking is done in the chowk and other courtyards in the neighborhood. The area where four-wheelers were parked at Temple Chowk is largely taken up by parking. Since parking has wrecked courtyards' original purpose, the quality of life has been negatively impacted by the transformation of the urban landscape. The courtyards in the region have changed the prior "feeling of enclosure" into "sense of suffocation" due to the tall buildings surrounding them from all sides, while the migration of people has decreased the level of sociability as it was earlier.

Harisiddhi being a traditional town being changed due to the effects of urbanization, the temple space and other open space with old traditional structures are still intact as residents are keen to preserve their heritage, the space has a different vibe which can be maintained following the place with some rules and regulations. Some courtyards have light and ventilation because after earthquake, there are vacant plots and the houses are not made, therefore it still possess a hope

for not being changed as some of the areas of the settlement has changed.

Streets

Streets in the town of Harisiddhi are changed from brick pavement to stone pavement leaving the temple space only with brick pavement to make the place vibrant same as it was earlier. The use of stone pavment has increased the thermal temperature of the town which make residents uncomfortable in comparision to earlier times. The house being compact and with lack of light and ventilation adds in the thermal discomfort which has been added more after the stone pavements are the major concern for residents. The streets are polluted with the construction waste that is submitted at the streets and streetjunctions of the settlement that has hindered the movement of people along with making children difficult to play along. The streets are also seen with the parking of vehicles, the streets being narrowed and along with parking has made people little problematic. Streets are provided with patis, where some needs to be constructed after their reconstruction, it can add upto their culture and heritage.

Leisure and recreation-Open Spaces

Traditional centers for all leisure and recreational activities were open areas designed as courtyards. Alongwith the courtyards, the town has an open space which has given lots of people a different vibrancy in the settlement. The children, youths and old people use to go there for their leisure and recreation activities. The old age people go there in the morning time as some of the exercise equipments have been added in the open space, youths visit there in the morning for playing badminton and children use to go at evening time for recreation purpose. So each age group has been involved in this open space but the priority for female needs to be managed properly as from the survey conducted it has been seen that the females were less involved in going to the open space as they used inner courtyards for socialization even teenagers were not seen using the space, they gather at their houses only and don't go outside as they say that girls are neglected and whole space is occupied by the other people that makes them separate from the place.

There is no facilities provided for teenagers to get involved in the open space, which decreases the chance of being more socialized and increasing their quality if life. Different other open spaces are also present in the town which includes waterbodies, small temples space that is present at both north and south side of the settlement hence, these two junction points possess a scope of betterment enhancing the authenticity of the place and giving the place a new meaning with new ideas maintain the cultural values alongwith. The roadside spaces are disturbed due to the traffic along the open spaces making it less attractive to visit.

However, as these open spaces are solely used for social and recreational purposes, it might be

said that the loss of public space functions has negatively impacted the area. The decline in social values inside the community is partly a result of migration. If the existing open spaces are maintained properly, giving them a special meaning by dedicating them to the local residents who lack employment, the new concepts of popularizing open spaces can attract more outside people, and making local people to stay intact with their settlement, the level of social interaction among the residents can be maintained.

5.1.2 Safety and security

The neighborhood was determined to be moderately safe with cases of theft and robbery. Because they have a unique affinity with one another, the locals' presence makes the area much safer. The elderly are concerned about their health security because there are no hospital facilities and an ambulance cannot reach the settlement's interior in an emergency. The inhabitants of the community are at risk for dying since they are not conscious of their health. The majority of the young people have left the valley, leaving the elderly alone in their homes with little care provided for them. Living in the settlement struck them as depressing and unsettling.

After earthquake, there has been a fear of insecurity among those living in the old houses more compared to the newly concrete made houses. The residents were more concerned about the evacuate space in the settlement as they lack space for the disaster if occured again. Fireescape is also one of the issue in the settlement because the fire vehicle is not accessible in the settlement which is bounded by the four gates. Gates resist the entry of firevehicle while the source of emergency is the water bodies present there which is also depleting due to low water retention level. Therefore in case safety and security, the settlements needs more alternatives and sources to counter down their insecurity and enhance their quality of life.

Cleanliness and pollution

One of the main issues in the neighborhood was highlighted as pollution and a growth in modernism. The neighborhood's streets are contaminated with construction debris and rubbish. Unmaintained open spaces and waterbodies, which are crucial to the settlement's cultural and aesthetic qualities, are also sometimes ignored.

5.1.3 Social Relationships

Social bonding and neighborly relation

Apart from a few disputes involving land and property, social cohesion and neighborly relations in the area appeared to be mostly positive. The ties that bind the community of Newars, who make up the majority of the population there.

Social activity

The open spaces in Harisiddhi serve as the hub for neighborhood gatherings and regular social activities including playing and sunbathing by youngsters. Other courtyards in the neighborhood have been overrun by inappropriate uses, and there are currently very few social events taking place there. The Harisiddhi Youth Club, a local youth organization, manages the majority of the neighborhood's social events. The group often puts on a variety of social events, including blood donation drives, health fairs, cleanup drives, relief efforts, and awareness campaigns, among others. The club also hosts a number of religious and cultural events in the region, particularly around Jatras and festivals. Social events are attended by people of all ages for everyone if it is possible, but cultural and religious programs are only for locals. By bridging the gap between people, such regular social gatherings support the neighborhood's strong sense of community.

Social support

Although neighbors do help one another and there is a great sense of social cohesion in the area, Harisiddhi Youth Club takes the lead in running relief efforts in times of need or emergency. The club actively took part in rescue efforts and rubble removal during the 2015 Gorkha earthquake.

Cultural and religious activity

The Harisiddhi area has a dynamic cultural community; all of the significant festivals and Jatras are observed in this village. The predominant religion in the region is Hinduism, but Buddhism and its influence are also evident. The Harisiddhi Youth Club also plans cultural events and programs by collecting funds from nearby homes. However, there has been a decline in religious activity in the neighborhood recently for a variety of reasons, including modernisation, gentrification, a lack of funding, and a loss of enthusiasm. Along with these causes, the poor state of nearby religious buildings, such as the patis and pukhus, has also had an effect on the region's intangible cultural characteristics. The preservation of culture and festivals is crucial because they contribute to a place's identity and foster communal ties.

CHAPTER 6

Policy Implications and Conclusion

6.1 Building Byelaws

The Kathmandu Valley experiences the same pressures from urbanization, globalization, development, and the environment as other cities. Byelaws have to be reviewed for new houses being built at Harisiddhi that can maintain the traditional essence of the place. Brick pavements to be maintained giving heritage walk streets. Vacant plots are being sold to outsiders, but it has to be sold to the locals for maintaining their socio-cultural values. Byelaws should be maintained for maintaining building's height, traditional brick facades, wooden carved windows which can help in reviving the cultural essence of the traditional town. Increasing building height without proper safety considerations also greatly increases risk during hazards like earthquake and fire hence this amendment in the bylaws should be reviewed. There should be rules and regulations with proper check on the building's height with uniformity in building height of the street scape to maintain the uniform skyline and maintain the solar plane.

6.2 Introducing Urban Design Guidelines

Urban design principles should be developed to promote the creation of structures by respecting traditional architectural styles while also responding to the immediate surroundings, and streets. Urban design guidelines should be developed for the renovation and reconstruction of houses in the area. Guidelines to be maintained for different age group people alongwith streets and environment surroundings. Guidelines to be provided for the Proper design guidelines should be there for public spaces including green spaces, ponds spaces, courtyards, temple complex present in the settlement. The guidelines' scope should cover how existing modern buildings with non-traditional façade treatments are treated. The rules should be implemented through adaptable strategies, such as fostering consensus among local authorities and the community, offering rewards to those who follow the rules, and penalizing breakers.

6.3 Cultural Restoration

Cultural restoration is an important thing one has to keep intact. The construction of patis are still incomplete which needs to be completed to revive their culture. The open spaces need to be revitalized as they are left negelected. The culturally important ponds and open

spaces need to be restored and proper maintenance has to be carried out. Traditional temple space needs to be free from parking forbidding the four wheelers and two wheelers vehicles saving brick pavement from being damaged and making walkable streets in the traditional town.

Preservation of intangible heritages enhancing more cultural and religious activities:

Alongwith tangible components, intangible components of the town also inherits the main essence of the settlement and it is most important to preserve from one generation to another to continue the traditional legacy. Rituals and festivals are essential elements of legacy that are not only ingrained in people's social lives and identities but also form a connection between them and the location they are living, so they should be well-recognized. If the government does not step in to provide support, allowing the community to take the lead, the locals and the local club who are exerting effort to uphold their social norms and traditions will not be able to survive for long. Therefore, efforts from government raising funds and awareness should be initiated for the settlement.

6.4 Safety and Security

Individual's safety and security alongwith the cases of robbery in the town needs to be taken into consideration. Introducing cctvs, maximum number of lights in the streets and courtyards for goods and individual's safety. Safety and security needs to be considered while talking about traditional town as research found more concerned when taking earthquake and fireescape consequences. There are less evacuation space in case of earthquake, such emergency has to be identified and should be used for escape place. There has also been a problem for fireescape accessibilty, an alternative source has to provided in the town in case of emergency fire exit. Emergency fireescape team to be associated within the town in case of emergency. Evacuation spaces to be allotted for earthquake emergency as traditional town lacks in space and most spaces are surrounded by houses. Since most people aren't aware of these inner courtyards and inner alleyways, maps demonstrating linkages to them ought to be developed and posted in strategic places.

6.5 Parking management

Parking has been a major problem in the town restricting people from keeping four wheelers while two wheelers are mostly parked on the street sides, courtyards or at open spaces that has hindered the street walkability and transformed the social spaces. Restrictions on parking in streets and courtyards should be put in place, and those who violate them should be subject to sanctions like paying penalties. Spaces to be allotted for two wheelers and four

wheelers parking in the town, so there can be free streets and social spaces. Proper coordination within government ministries and departments needs to be amended.

6.6 Commercialization of spaces

The available open spaces, ponds spaces are valuable and can be used for the promotion of the settlement and the related spaces which can attract not only local residents but also people from outside the settlement increasing the place's identity. Along with the Small restaurants for social networking along with promoting the business and a sort of earnings for the local residents which can further be used for the maintenance and promotion of the places. Lightings at temple complex at night time can attract the people to visit the temple introducing small shops around the temple area for worshipping purpose can increase the people's flow from outside the settlement. Local authorities alongwith government departments can coordinate and help in promoting the available open spaces in the traditional town.

The study comes to the conclusion that changes in the immediate built environment and urban spaces have had an effect on people's quality of life. The change has led to increase in building height of the houses reducing the light projection from entering the houses. Lack of urban guidelines in the settlement has made some difficulties and problems for the people of different age group therefore preferences should be given to the different age group including old people, teenagers and youngsters. Parking has significantly decreased the traditional space's usability, decreasing room for social and recreational activities. Therefore, new space for parking has to be introduced. Open spaces neglected and left without any maintenance have direct impact on daily lives of the local people. Unplanned building construction is degrading traditional authenticity affecting people's quality of life. Small scale business and commercialization of the open spaces, pond spaces can contribute in the social life of the local residents that can enhance the quality of life of the settlement. Therefore, restricting inappropriate uses, management of open spaces and ponds that are traditionally important, and putting controls in place for physical change, can enhance people's quality of life.

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ANNEXES

QUESTIONNAIRE

Introduction			
Enumerators name:	House ID /To	le name:	
DATE:	Time of recor	rd:	
Respondents information:			
a) Name/ Contact info:			
b) Sex			
c) Age group	Male	Female	Others
d)literacy	yes	no	
Level of education:			
e)Occupation:	eco	nomically inactiv	ve:
f)Religion:			
g)Ethnicity:			
h)Mother Tongue:			
g) House Ownership:			
h)Vehicle Ownerships:			
i) Vehicle Parking:			
j)Orientation of the building/facing	of the main façade?:		
k) Number of storey/use:			
G-			
1-			
2-			
3-			
4-			
A. PHYSICAL ATTRIBUTE	S AND ENVIRON	MENT	
A1) to what extent do you think the	physical environmen	nt has changed o	ver time?
a) Highly			
b)Moderately			
c)Not at all			
How:			
A2) are you satisfied with the chang	ges??		
a) Highly			
b)Moderately			
c)Not at all			
Why:			

A3)Are you satisfied with the housing condition? a) Highly b)Moderately c)Not at all why:
A4)Are you satisfied with the road accessibility? a) Highly b)Moderately c)Not at all why:
A5) what kind of places are there for leisure/recreation activities in your neighbourhood? are you satisfied with the avaliable facilities for recreation?
a) Highly b)Moderately c)Not at all Why?
A6) What type of vehicles do you have ?where do you park?Are you satisfied with your parking spaces in the neighbourhood? a) Highly b)Moderately c)Not at all Why:
A7) are you satisfied with the watersewerage services provided?Why? a) Highly b)Moderately c)Not at all Why:
A8) are you satisfied with the solid waste management services provided? Why? a) Highly b)Moderately c)Not at all Why:
A9) Are you satisfied with the water supply provision? Why? a) Highly

b)Moderately c)Not at all
A10) How satisfied are you with your neighborhood environment? (e.g. pollution,noise,built environment)
a) Highly b)Moderately c)Not at all Why:
A11) are you satisfied with the use of public spaces in your neighborhood (chowk, streets, pati) for social activities?
a) Highly b)Moderately c)Not at all
A12) Are you satisfied with the escape place for earthquake disaster?
a)Highly b)Moderately c)Not at all
 A13) Are you satisfied with fireescape accessibility in the neighborhood? a) Highly b) Moderately c) Not at all
B: COMFORT AND SAFETY
B1) how safe do you feel in the neighbourhood?

a) highly safeb) moderately safec) highly unsafe

e) lack of light f)unsafe

Why:

B2)Do you feel comfortable walking in the streets of the neighborhood? a) Highly b)Moderately c)Not at all Why: If no then what do you think has caused discomfort for you to walk around the neighborhood? a) congestion b)vehicles c)shops/vendors d)parking e) lack of light f)unsafe
B3) Are you comfortable in doing daily activites in your neighborhood? What are the factors affecting? a) Highly b)Moderately c)Not at all Why:
Factors affecting? a)distance /time b)accessibilty c)Proper Infrastructures
daily activities: going to school going to groceries/buying using public spaces for any purpose(pati/courtyards/streets)
B4) how unsafe do you feel w.r.t earthquake in the neighborhood?are you satisafied with the escape place for earthquake disaster? a) highly unsafe b) moderately unsafe c) not at all(safe) Why:
B5) how unsafe do you feel w.r.t fireescape in the neighborhood? are you satisafied with the fireescape accessibility? a) highly safe b) moderately safe c) highly unsafe

C: SOCIAL RELATIONSHIPS

- C1) How positive do you feel about the future continuing living in this neighborhood?
- a) Highly
- b)Moderately
- c)Not at all
- C2) Are you satisfied with the networking environment in the neighborhood?
- a) Highly
- b)Moderately
- c)Not at all
- C3)How attached do you feel towards your neighbourhood?
- a)Highly attached
- b) Moderately attached
- c) not at all

Why:

C4) Are you satisfied with the Jatras (festivals) that happen in the neighborhood w.r.t social spaces and building design?

what is the difference in building design and social spaces in past and present scenario that has effected the rituals?

- a) Highly
- b)Moderately
- c)Not at all

Why:

- C5) For what purpose do you use the neighborhood public space(courtyard)?
- a) Gathering
- b)Sun basking
- c)Parking
- d)Yoga exercise/sports
- e)commercial purpose
- f) not at all

Opinion on the neighborhood

- Q.) What are the two best things about your neighborhood?
- Q.) What opportunities you see in the neighborhood?
- Q.) What is lacking in the neighborhood?
- Q.) What changes do you wish for your neighborhood in near future?

RESULTS OF QUESTIONNAIRE

A: Physical Attributes and Environment

A1 :To what extent do you	think p	hysical en	vironr	nent has c	hanged	l over time	?	
Attributes]	Total	E	lighly	Mo	derately	No	ot at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	37	42.0	4	44.4	5	71.4
Female	58	55.8	51	58.0	5	55.6	2	28.6
Total No	104	100.0	88	100.0	9	100.0	7	100.0
Total(%)		100.0		84.6		8.7		6.7
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	15	17.0	6	66.7	5	71.4
20-40	33	31.7	29	33.0	2	22.2	2	28.6
40-60	27	26.0	26	29.5	1	11.1	0	0.0
>60	18	17.3	18	20.5	0	0.0	0	0.0
Total No	104	100	88	100.0	9	100.0	7	100.0
Total(%)		100.0		84.6		8.7		6.7
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	86	97.7	6	66.7	3	42.9
Renters	9	8.7	2	2.3	3	33.3	4	57.1
Total No	104	100.0	88	100.0	9	100.0	7	100.0
Total(%)		100.0		84.6		8.7		6.7
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	5	5.7	5	55.6	3	42.9
3-4	52	50.0	46	52.3	2	22.2	4	57.1
4-6	37	35.6	35	39.8	2	22.2	0	0.0
>6	2	1.9	2	2.3	0	0.0	0	0.0
Total No	104	100	88	100.0	9	100.0	7	100.0
Total(%)		100.0		84.6		8.7		6.7
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	83	94.3	4	44.4	4	57.1
old brick	13	12.5	5	5.7	5	55.6	3	42.9
Total No	104	100.0	88	100.0	9	100.0	7	100.0
Total(%)		100.0		84.6		8.7		6.7

A2: Are you satisfied with t	he phy	sical envir	onmer	t changes	?			
Attributes	T	otal	H	lighly	Mod	derately	No	t at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	23	41.1	12	40.0	11	61.1
Female	58	55.8	33	58.9	18	60.0	7	38.9
Total No	104	100.0	56	100.0	30	100.0	18	100.0
Total(%)		100.0		53.8		28.8		17.3
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	18	32.1	5	16.7	3	16.7
20-40	33	31.7	14	25.0	11	36.7	8	44.4
40-60	27	26.0	13	23.2	10	33.3	4	22.2
>60	18	17.3	11	19.6	4	13.3	3	16.7
Total No	104	100	56	100.0	30	100.0	18	100.0
Total(%)		100.0		53.8		28.8		17.3
Residency	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	52	92.9	29	96.7	14	77.8
Renters	9	8.7	4	7.1	1	3.3	4	22.2
Total No	104	100.0	56	100.0	30	100.0	18	100.0
Total(%)		100.0		53.8		28.8		17.3
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	8	14.3	1	3.3	4	22.2
3-4	26	25.0	16	28.6	10	33.3	0	0.0
4-6	62	59.6	31	55.4	17	56.7	14	77.8
>6	3	2.9	1	1.8	2	6.7	0	0.0
Total No	104	100	56	100.0	30	100.0	18	100.0
Total(%)		100.0		53.8		28.8		17.3
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	48	85.7	29	96.7	14	77.8
old brick	13	12.5	8	14.3	1	3.3	4	22.2
Total No	104	100.0	56	100.0	30	100.0	18	100.0
Total(%)		100.0		53.8		28.8		17.3

A3: Are you sat	isfied with	the housin	g condi	tion?	_		_	
Attributes	T	otal	ŀ	Iighly	Mo	oderately	N	ot at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	24	48.0	18	40.9	4	40.0
Female	58	55.8	26	52.0	26	59.1	6	60.0
Total No	104	100.0	50	100.0	44	100.0	10	100.0
Total(%)		100.0		48.1		42.3		9.6
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	19	38.0	7	15.9	0	0.0
20-40	33	31.7	13	26.0	17	38.6	3	30.0
40-60	27	26.0	9	18.0	13	29.5	5	50.0
>60	18	17.3	9	18.0	7	15.9	2	20.0
Total No	104	100	50	100.0	44	100.0	10	100.0
Total(%)		100.0		48.1		42.3		9.6
Residency	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	44	88.0	41	93.2	10	100.0
Renters	9	8.7	6	12.0	3	6.8	0	0.0
Total No	104	100.0	50	100.0	44	100.0	10	100.0
Total(%)		100.0		48.1		42.3		9.6
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	7	14.0	5	11.4	1	10.0
3-4	26	25.0	16	32.0	9	20.5	1	10.0
4-6	62	59.6	25	50.0	29	65.9	8	80.0
>6	3	2.9	2	4.0	1	2.3	0	0.0
Total No	104	100	50	100.0	44	100.0	10	100.0
Total(%)		100.0		48.1		42.3		9.6
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	43	86.0	39	88.6	9	90.0
old brick	13	12.5	7	14.0	5	11.4	1	10.0
Total No	104	100.0	50	100.0	44	100.0	10	100.0
Total(%)		100.0		48.1		42.3		9.6

A4: Are you satisfied with	the road	accessibili	ity ?					
Attributes	7	Total	F	lighly	Moderately		Not at all	
	No.	%	No.	%	No.	%	No.	%
Sex:					•			
Male	46	44.2	30	41.7	14	51.9	2	40.0
Female	58	55.8	42	58.3	13	48.1	3	60.0
Total No	104	100.0	72	100.0	27	100.0	5	100.0
Total(%)		100.0		69.2		26.0		4.8
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	22	30.6	4	14.8	0	0.0
20-40	33	31.7	19	26.4	13	48.1	1	20.0
40-60	27	26.0	19	26.4	6	22.2	2	40.0
>60	18	17.3	12	16.7	4	14.8	2	40.0
Total No	104	100	72	100.0	27	100.0	5	100.0
Total(%)		100.0		69.2		26.0		4.8
Residency	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	65	90.3	25	92.6	5	100.0
Renters	9	8.7	7	9.7	2	7.4	0	0.0
Total No	104	100.0	72	100.0	27	100.0	5	100.0
Total(%)		100.0		69.2		26.0		4.8
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	10	13.9	2	7.4	1	20.0
3-4	26	25.0	22	30.6	3	11.1	1	20.0
4-6	62	59.6	37	51.4	22	81.5	3	60.0
>6	3	2.9	3	4.2	0	0.0	0	0.0
Total No	104	100	72	100.0	27	100.0	5	100.0
Total(%)		100.0		69.2		26.0		4.8
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	62	86.1	25	92.6	4	80.0
old brick	13	12.5	10	13.9	2	7.4	1	20.0
Total No	104	100.0	72	100.0	27	100.0	5	100.0
Total(%)		100.0		69.2		26.0		4.8

Attributes	1	Total	I	lighly	Mo	Moderately		Not at all	
	No.	%	No.	%	No.	%	No.	%	
Sex:									
Male	46	44.2	19	44.2	20	41.7	7	53.8	
Female	58	55.8	24	55.8	28	58.3	6	46.2	
Total No	104	100.0	43	100.0	48	100.0	13	100.0	
Total(%)		100.0		41.3		46.2		12.5	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	12	27.9	9	18.8	5	38.5	
20-40	33	31.7	10	23.3	20	41.7	3	23.1	
40-60	27	26.0	13	30.2	9	18.8	5	38.5	
>60	18	17.3	8	18.6	10	20.8	0	0.0	
Total No	104	100	43	100.0	48	100.0	13	100.0	
Total(%)		100.0		41.3		46.2		12.5	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	95	91.3	39	90.7	46	95.8	10	76.9	
Renters	9	8.7	4	9.3	2	4.2	3	23.1	
Total No	104	100.0	43	100.0	48	100.0	13	100.0	
Total(%)		100.0		41.3		46.2		12.5	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	13	12.5	7	16.3	4	8.3	2	15.4	
3-4	26	25.0	11	25.6	12	25.0	3	23.1	
4-6	62	59.6	23	53.5	31	64.6	8	61.5	
>6	3	2.9	2	4.7	1	2.1	0	0.0	
Total No	104	100	43	100.0	48	100.0	13	100.0	
Total(%)		100.0		41.3		46.2		12.5	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	91	87.5	36	83.7	44	91.7	11	84.6	
old brick	13	12.5	7	16.3	4	8.3	2	15.4	
Total No	104	100.0	43	100.0	48	100.0	13	100.0	
Total(%)		100.0		41.3		46.2		12.5	

A5(A) :Reasons for Attributes	r good ei	nvironme		Cultural					
Attributes	1	Cotal		Essence	Frien	dly Neighbors	Open Spaces		
	No.	%					•		
Sex:			No.	%	No.	%	No.	%	
Male	25	41.7	7	46.7	9	26.5	9	81.8	
Female	35	58.3	8	53.3	25	73.5	2	18.2	
Total No	60	100.0	15	100.0	34	100.0	11	100.0	
Total(%)		100.0		25.0		56.7		18.3	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	16	26.7	2	13.3	6	17.6	8	72.7	
20-40	17	28.3	7	46.7	10	29.4	0	0.0	
40-60	16	26.7	4	26.7	12	35.3	0	0.0	
>60	11	18.3	2	13.3	6	17.6	3	27.3	
Total No	60	100	15	100.0	34	100.0	11	100.0	
Total(%)		100.0		25.0		56.7		18.3	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	53	88.3	15	100.0	32	94.1	6	54.5	
Renters	7	11.7	0	0.0	2	5.9	5	45.5	
Total No	60	100.0	15	100.0	34	100.0	11	100.0	
Total(%)		100.0		25.0		56.7		18.3	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	10	16.7	2	13.3	5	14.7	3	27.3	
3-4	14	23.3	3	20.0	10	29.4	1	9.1	
4-6	32	53.3	10	66.7	15	44.1	7	63.6	
>6	4	6.7	0	0.0	4	11.8	0	0.0	
Total No	60	100	15	100.0	34	100.0	11	100.0	
Total(%)		100.0		25.0		56.7		18.3	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	50	83.3	13	86.7	29	85.3	8	72.7	
old brick	10	16.7	2	13.3	5	14.7	3	27.3	
Total No	60	100.0	15	100.0	34	100.0	11	100.0	
Total(%)		100.0		25.0		56.7		18.3	

Attributes	nvironment 		_			
Attributes		Total	P	<u>ollution</u>	built	environment
	No.	%	No.	%	No.	%
Sex:						1
Male	25	41.0	14	41.2	11	40.7
Female	36	59.0	20	58.8	16	59.3
Total No	61	100.0	34	100.0	27	100.0
Total(%)		100.0		55.7		44.3
Age:	No.	%	No.	%	No.	%
<20	12	19.7	10	29.4	2	7.4
20-40	24	39.3	11	32.4	13	48.1
40-60	15	24.6	6	17.6	9	33.3
>60	10	16.4	7	20.6	3	11.1
Total No	61	100	34	100.0	27	100.0
Total(%)		100.0		55.7		44.3
Residency:	No.	%	No.	%	No.	%
Locals	57	93.4	31	91.2	26	96.3
Renters	4	6.6	3	8.8	1	3.7
Total No	61	100.0	34	100.0	27	100.0
Total(%)		100.0		55.7		44.3
No of Storey	No.	%	No.	%	No.	%
<3	6	9.8	4	11.8	2	7.4
3-4	16	26.2	10	29.4	6	22.2
4-6	39	63.9	20	58.8	19	70.4
>6	0	0.0	0	0.0	0	0.0
Total No	61	100	34	100.0	27	100.0
Total(%)		100.0		55.7		44.3
Type of building	No.	%	No.	%	No.	%
concrete	55	90.2	30	88.2	25	92.6
old brick	6	9.8	4	11.8	2	7.4
Total No	61	100.0	34	100.0	27	100.0
Total(%)		100.0		55.7		44.3

Attributes	,	Total		Highly		Moderately		Not at all	
	No.	%	No.	%	No.	%	No.	%	
Sex:									
Male	46	44.2	34	43.6	11	47.8	1	33.3	
Female	58	55.8	44	56.4	12	52.2	2	66.7	
Total No	104	100.0	78	100.0	23	100.0	3	100.0	
Total(%)		100.0		75.0		22.1		2.9	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	20	25.6	5	21.7	1	33.3	
20-40	33	31.7	23	29.5	9	39.1	1	33.3	
40-60	27	26.0	20	25.6	6	26.1	1	33.3	
>60	18	17.3	15	19.2	3	13.0	0	0.0	
Total No	104	100	78	100.0	23	100.0	3	100.0	
Total(%)		100.0		75.0		22.1		2.9	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	95	91.3	73	93.6	19	82.6	3	100.0	
Renters	9	8.7	5	6.4	4	17.4	0	0.0	
Total No	104	100.0	78	100.0	23	100.0	3	100.0	
Total(%)		100.0		75.0		22.1		2.9	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	13	12.6	12	15.4	1	4.3	0	0.0	
3-4	26	25.2	22	28.2	4	17.4	0	0.0	
4-6	61	59.2	43	55.1	16	69.6	2	100.0	
>6	3	2.9	1	1.3	2	8.7	0	0.0	
Total No	103	100	78	100.0	23	100.0	2	100.0	
Total(%)		100.0		75.7		22.3		1.9	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	90	87.4	66	84.6	22	95.7	2	100.0	
old brick	13	12.6	12	15.4	1	4.3	0	0.0	
Total No	103	100.0	78	100.0	23	100.0	2	100.0	
Total(%)		100.0		75.7		22.3		1.9	

A7: Are you satisfied	with the av	vailable fa	acilities	for recr	eation (?			
Attributes	7	<u> Fotal</u>	I.	lighly	Mo	Moderately		Not at all	
	No.	%	No.	%	No.	%	No.	%	
Sex:									
Male	46	44.2	12	37.5	22	45.8	12	50.0	
Female	58	55.8	20	62.5	26	54.2	12	50.0	
Total No	104	100.0	32	100.0	48	100.0	24	100.0	
Total(%)		100.0		30.8		46.2		23.1	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	9	28.1	12	25.0	5	20.8	
20-40	33	31.7	10	31.3	16	33.3	7	29.2	
40-60	27	26.0	7	21.9	12	25.0	8	33.3	
>60	18	17.3	6	18.8	8	16.7	4	16.7	
Total No	104	100	32	100.0	48	100.0	24	100.0	
Total(%)		100.0		30.8		46.2		23.1	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	95	91.3	29	90.6	45	93.8	21	87.5	
Renters	9	8.7	3	9.4	3	6.3	3	12.5	
Total No	104	100.0	32	100.0	48	100.0	24	100.0	
Total(%)		100.0		30.8		46.2		23.1	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	13	12.5	4	12.5	7	14.6	2	8.3	
3-4	26	25.0	8	25.0	11	22.9	7	29.2	
4-6	62	59.6	19	59.4	29	60.4	14	58.3	
>6	3	2.9	1	3.1	1	2.1	1	4.2	
Total No	104	100	32	100.0	48	100.0	24	100.0	
Total(%)		100.0		30.8		46.2		23.1	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	91	87.5	28	87.5	41	85.4	22	91.7	
old brick	13	12.5	4	12.5	7	14.6	2	8.3	
Total No	104	100.0	32	100.0	48	100.0	24	100.0	
Total(%)		100.0		30.8		46.2		23.1	

A8 : Are you satisfied with your parking spaces in the neighborhood?									
Attributes	ŗ	<u>Fotal</u>	I	Iighly	Mo	derately	Not at all		
	No.	%	No.	%	No.	%	No.	%	
Sex:									
Male	46	44.2	16	48.5	19	44.2	11	39.3	
Female	58	55.8	17	51.5	24	55.8	17	60.7	
Total No	104	100.0	33	100.0	43	100.0	28	100.0	
Total(%)		100.0		31.7		41.3		26.9	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	9	27.3	12	27.9	5	17.9	
20-40	33	31.7	13	39.4	10	23.3	10	35.7	
40-60	27	26.0	7	21.2	10	23.3	10	35.7	
>60	18	17.3	4	12.1	11	25.6	3	10.7	
Total No	104	100	33	100.0	43	100.0	28	100.0	
Total(%)		100.0		31.7		41.3		26.9	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	95	91.3	27	81.8	42	97.7	26	92.9	
Renters	9	8.7	6	18.2	1	2.3	2	7.1	
Total No	104	100.0	33	100.0	43	100.0	28	100.0	
Total(%)		100.0		31.7		41.3		26.9	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	13	12.5	7	21.2	4	9.3	2	7.1	
3-4	26	25.0	6	18.2	13	30.2	7	25.0	
4-6	62	59.6	20	60.6	25	58.1	17	60.7	
>6	3	2.9	0	0.0	1	2.3	2	7.1	
Total No	104	100	33	100.0	43	100.0	28	100.0	
Total(%)		100.0		31.7		41.3		26.9	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	91	87.5	26	78.8	39	90.7	26	92.9	
old brick	13	12.5	7	21.2	4	9.3	2	7.1	
Total No	104	100.0	33	100.0	43	100.0	28	100.0	
Total(%)		100.0		31.7		41.3		26.9	

A9 :Are you satisfied with	waters	ewerage so	ervices	provided 3	?			
Attributes	1	otal	H	ighly	Mod	derately	No	t at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	30	37.0	4	50.0	12	80.0
Female	58	55.8	51	63.0	4	50.0	3	20.0
Total No	104	100.0	81	100.0	8	100.0	15	100.0
Total(%)		100.0		77.9		7.7		14.4
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	18	22.2	5	62.5	3	20.0
20-40	33	31.7	31	38.3	0	0.0	2	13.3
40-60	27	26.0	20	24.7	3	37.5	4	26.7
>60	18	17.3	12	14.8	0	0.0	6	40.0
Total No	104	100	81	100.0	8	100.0	15	100.0
Total(%)		100.0		77.9		7.7		14.4
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	76	93.8	7	87.5	12	80.0
Renters	9	8.7	5	6.2	1	12.5	3	20.0
Total No	104	100.0	81	100.0	8	100.0	15	100.0
Total(%)		100.0		77.9		7.7		14.4
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	11	13.6	0	0.0	2	13.3
3-4	26	25.0	19	23.5	3	37.5	4	26.7
4-6	62	59.6	49	60.5	4	50.0	9	60.0
>6	3	2.9	2	2.5	1	12.5	0	0.0
Total No	104	100	81	100.0	8	100.0	15	100.0
Total(%)		100.0		77.9		7.7		14.4
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	70	86.4	8	100.0	13	86.7
old brick	13	12.5	11	13.6	0	0.0	2	13.3
Total No	104	100.0	81	100.0	8	100.0	15	100.0
Total(%)		100.0		77.9		7.7		14.4

A10 :Are you satisfied v	with solid w	aste man	agemen	t services	provide	d ?		
Attributes	,	Total	I	lighly	Mo	derately	No	ot at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	31	40.8	13	54.2	2	50.0
Female	58	55.8	45	59.2	11	45.8	2	50.0
Total No	104	100.0	76	100.0	24	100.0	4	100.0
Total(%)		100.0		73.1		23.1		3.8
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	22	28.9	4	16.7	0	0.0
20-40	33	31.7	27	35.5	6	25.0	0	0.0
40-60	27	26.0	18	23.7	6	25.0	3	75.0
>60	18	17.3	9	11.8	8	33.3	1	25.0
Total No	104	100	76	100.0	24	100.0	4	100.0
Total(%)		100.0		73.1		23.1		3.8
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	68	89.5	23	95.8	4	100.0
Renters	9	8.7	8	10.5	1	4.2	0	0.0
Total No	104	100.0	76	100.0	24	100.0	4	100.0
Total(%)		100.0		73.1		23.1		3.8
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	11	14.5	1	4.2	1	25.0
3-4	26	25.0	15	19.7	11	45.8	0	0.0
4-6	62	59.6	48	63.2	11	45.8	3	75.0
>6	3	2.9	2	2.6	1	4.2	0	0.0
Total No	104	100	76	100.0	24	100.0	4	100.0
Total(%)		100.0		73.1		23.1		3.8
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	65	85.5	23	95.8	3	75.0
old brick	13	12.5	11	14.5	1	4.2	1	25.0
Total No	104	100.0	76	100.0	24	100.0	4	100.0
Total(%)		100.0		73.1		23.1		3.8

A11 :Are you satis	fied wit	h water su	pply ser	vices prov	rided ?			
Attributes	,	Total	I	lighly	Mo	derately	N	ot at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	27	39.7	14	58.3	5	41.7
Female	58	55.8	41	60.3	10	41.7	7	58.3
Total No	104	100.0	68	100.0	24	100.0	12	100.0
Total(%)		100.0		65.4		23.1		11.5
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	13	19.1	11	45.8	2	16.7
20-40	33	31.7	25	36.8	4	16.7	4	33.3
40-60	27	26.0	17	25.0	6	25.0	4	33.3
>60	18	17.3	13	19.1	3	12.5	2	16.7
Total No	104	100	68	100.0	24	100.0	12	100.0
Total(%)		100.0		65.4		23.1		11.5
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	62	91.2	21	87.5	12	100.0
Renters	9	8.7	6	8.8	3	12.5	0	0.0
Total No	104	100.0	68	100.0	24	100.0	12	100.0
Total(%)		100.0		65.4		23.1		11.5
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	11	16.2	2	8.3	0	0.0
3-4	26	25.0	16	23.5	7	29.2	3	25.0
4-6	62	59.6	38	55.9	15	62.5	9	75.0
>6	3	2.9	3	4.4	0	0.0	0	0.0
Total No	104	100	68	100.0	24	100.0	12	100.0
Total(%)		100.0		65.4		23.1		11.5
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	57	83.8	22	91.7	12	100.0
old brick	13	12.5	11	16.2	2	8.3	0	0.0
Total No	104	100.0	68	100.0	24	100.0	12	100.0
Total(%)		100.0		65.4		23.1		11.5

Attributes		Total	H	Highly	Mo	Moderately		Not at all	
	No.	%	No.	%	No.	%	No.	%	
Sex:							<u> </u>		
Male	46	44.2	13	37.1	24	48.0	9	47.4	
Female	58	55.8	22	62.9	26	52.0	10	52.6	
Total No	104	100.0	35	100.0	50	100.0	19	100.0	
Total(%)		100.0		33.7		48.1		18.3	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	12	34.3	10	20.0	4	21.1	
20-40	33	31.7	12	34.3	17	34.0	4	21.1	
40-60	27	26.0	7	20.0	14	28.0	6	31.6	
>60	18	17.3	4	11.4	9	18.0	5	26.3	
Total No	104	100	35	100.0	50	100.0	19	100.0	
Total(%)		100.0		33.7		48.1		18.3	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	95	91.3	31	88.6	46	92.0	18	94.7	
Renters	9	8.7	4	11.4	4	8.0	1	5.3	
Total No	104	100.0	35	100.0	50	100.0	19	100.0	
Total(%)		100.0		33.7		48.1		18.3	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	13	12.5	6	17.1	5	10.0	2	10.5	
3-4	26	25.0	8	22.9	14	28.0	4	21.1	
4-6	62	59.6	21	60.0	29	58.0	12	63.2	
>6	3	2.9	0	0.0	2	4.0	1	5.3	
Total No	104	100	35	100.0	50	100.0	19	100.0	
Total(%)		100.0		33.7		48.1		18.3	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	91	87.5	29	82.9	45	90.0	17	89.5	
old brick	13	12.5	6	17.1	5	10.0	2	10.5	
Total No	104	100.0	35	100.0	50	100.0	19	100.0	
Total(%)		100.0		33.7		48.1		18.3	

A13 :Are you satisfied wi	th firees	cape acces	ssibilit	y in the ne	ighbor	hood?		
Attributes	7	<u> Fotal</u>	E	lighly	Mo	derately	No	t at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	11	39.3	16	47.1	19	45.2
Female	58	55.8	17	60.7	18	52.9	23	54.8
Total No	104	100.0	28	100.0	34	100.0	42	100.0
Total(%)		100.0		26.9		32.7		40.4
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	8	28.6	6	17.6	12	28.6
20-40	33	31.7	10	35.7	11	32.4	12	28.6
40-60	27	26.0	7	25.0	9	26.5	11	26.2
>60	18	17.3	3	10.7	8	23.5	7	16.7
Total No	104	100	28	100.0	34	100.0	42	100.0
Total(%)		100.0		26.9		32.7		40.4
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	26	92.9	31	91.2	38	90.5
Renters	9	8.7	2	7.1	3	8.8	4	9.5
Total No	104	100.0	28	100.0	34	100.0	42	100.0
Total(%)		100.0		26.9		32.7		40.4
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	6	21.4	2	5.9	5	11.9
3-4	26	25.0	4	14.3	12	35.3	10	23.8
4-6	62	59.6	17	60.7	18	52.9	27	64.3
>6	3	2.9	1	3.6	2	5.9	0	0.0
Total No	104	100	28	100.0	34	100.0	42	100.0
Total(%)		100.0		26.9		32.7		40.4
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	22	78.6	32	94.1	37	88.1
old brick	13	12.5	6	21.4	2	5.9	5	11.9
Total No	104	100.0	28	100.0	34	100.0	42	100.0
Total(%)		100.0		26.9		32.7		40.4

B: COMFORT AND SAFETY

Attributes	7	Γotal	H	Iighly	Mo	derately	Not at all	
	No.	%	No.	%	No.	%	No.	%
Sex:			•					•
Male	46	44.2	24	42.9	15	44.1	7	50.0
Female	58	55.8	32	57.1	19	55.9	7	50.0
Total No	104	100.0	56	100.0	34	100.0	14	100.0
Total(%)		100.0		53.8		32.7		13.5
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	15	26.8	4	11.8	7	50.0
20-40	33	31.7	16	28.6	15	44.1	2	14.3
40-60	27	26.0	16	28.6	9	26.5	2	14.3
>60	18	17.3	9	16.1	6	17.6	3	21.4
Total No	104	100	56	100.0	34	100.0	14	100.0
Total(%)		100.0		53.8		32.7		13.5
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	50	89.3	32	94.1	13	92.9
Renters	9	8.7	6	10.7	2	5.9	1	7.1
Total No	104	100.0	56	100.0	34	100.0	14	100.0
Total(%)		100.0		53.8		32.7		13.5
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	8	14.3	3	8.8	2	14.3
3-4	26	25.0	15	26.8	9	26.5	2	14.3
4-6	62	59.6	32	57.1	20	58.8	10	71.4
>6	3	2.9	1	1.8	2	5.9	0	0.0
Total No	104	100	56	100.0	34	100.0	14	100.0
Total(%)		100.0		53.8		32.7		13.5
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	48	85.7	31	91.2	12	85.7
old brick	13	12.5	8	14.3	3	8.8	2	14.3
Total No	104	100.0	56	100.0	34	100.0	14	100.0
Total(%)		100.0		53.8		32.7		13.5
							1	

B1(A): Reasons for discomfort on streets										
Attributes	7	Total	Cor	gestion	lack	of light	stre	et dogs	pollut	ion
	No.	%	No.	%	No.	%	No.	%	No.	%
Sex:										
Male	22	51.2	7	43.8	9	52.9	3	75.0	3	50.0
Female	21	48.8	9	56.3	8	47.1	1	25.0	3	50.0
Total No	43	100.0	16	100.0	17	100.0	4	100.0	6	100.0
Total(%)		100.0		37.2		39.5		9.3		14.0
Age:	No.	%	No.	%	No.	%	No.	%	No.	%
<20	5	11.6	3	18.8	0	0.0	1	25.0	1	16.7
20-40	18	41.9	8	50.0	8	47.1	1	25.0	1	16.7
40-60	10	23.3	3	18.8	4	23.5	1	25.0	2	33.3
>60	10	23.3	2	12.5	5	29.4	1	25.0	2	33.3
Total No	43	100	16	100.0	17	100.0	4	100.0	6	100.0
Total(%)		100.0		37.2		39.5		9.3		14.0
Residency:	No.	%	No.	%	No.	%	No.	%	No.	%
Locals	40	93.0	15	93.8	16	94.1	4	100.0	5	83.3
Renters	3	7.0	1	6.3	1	5.9	0	0.0	1	16.7
Total No	43	100.0	16	100.0	17	100.0	4	100.0	6	100.0
Total(%)		100.0		37.2		39.5		9.3		14.0
No of Storey	No.	%	No.	%	No.	%	No.	%	No.	%
<3	4	9.3	1	6.3	2	11.8	0	0.0	1	16.7
3-4	10	23.3	2	12.5	5	29.4	1	25.0	2	33.3
4-6	27	62.8	12	75.0	10	58.8	3	75.0	2	33.3
>6	2	4.7	1	6.3	0	0.0	0	0.0	1	16.7
Total No	43	100	16	100.0	17	100.0	4	100.0	6	100.0
Total(%)		86.0		37.2		39.5		9.3		14.0
Type of building	No.	%	No.	%	No.	%	No.	%	No.	%
concrete	39	90.7	15	93.8	15	88.2	4	100.0	5	83.3
old brick	4	9.3	1	6.3	2	11.8	0	0.0	1	16.7
Total No	43	100.0	16	100.0	17	100.0	4	100.0	6	100.0
Total(%)		86.0		37.2		39.5		9.3		14.0

Attributes	1	Total	H	Highly	Mo	derately	No	ot at all
	No.	%						
Sex:			No.	%	No.	%	No.	%
Male	46	44.2	18	36.7	23	46.0	5	100.0
Female	58	55.8	31	63.3	27	54.0	0	0.0
Total No	104	100.0	49	100.0	50	100.0	5	100.0
Total(%)		100.0		47.1		48.1		4.8
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	10	20.4	16	32.0	0	0.0
20-40	33	31.7	17	34.7	15	30.0	1	20.0
40-60	27	26.0	16	32.7	10	20.0	1	20.0
>60	18	17.3	6	12.2	9	18.0	3	60.0
Total No	104	100	49	100.0	50	100.0	5	100.0
Total(%)		100.0		47.1		48.1		4.8
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	47	95.9	43	86.0	5	100.0
Renters	9	8.7	2	4.1	7	14.0	0	0.0
Total No	104	100.0	49	100.0	50	100.0	5	100.0
Total(%)		100.0		47.1		48.1		4.8
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	6	12.2	6	12.0	1	20.0
3-4	26	25.0	15	30.6	10	20.0	1	20.0
4-6	62	59.6	27	55.1	33	66.0	2	40.0
>6	3	2.9	1	2.0	1	2.0	1	20.0
Total No	104	100	49	100.0	50	100.0	5	100.0
Total(%)		b		47.1		48.1		4.8
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	43	87.8	44	88.0	4	80.0
old brick	13	12.5	6	12.2	6	12.0	1	20.0
Total No	104	100.0	49	100.0	50	100.0	5	100.0
Total(%)		100.0		47.1		48.1		4.8

Attributes	1	Total	I	Highly	Mo	derately	No	ot at all
	No.	%	No.	%	No.	%	No.	%
Sex:				•	'	•	•	•
Male	46	44.2	38	52.8	7	26.9	1	16.7
Female	58	55.8	34	47.2	19	73.1	5	83.3
Total No	104	100.0	72	100.0	26	100.0	6	100.0
Total(%)		100.0		69.2		25.0		5.8
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	17	23.6	9	34.6	0	0.0
20-40	33	31.7	21	29.2	9	34.6	3	50.0
40-60	27	26.0	22	30.6	4	15.4	1	16.7
>60	18	17.3	12	16.7	4	15.4	2	33.3
Total No	104	100	72	100.0	26	100.0	6	100.0
Total(%)		100.0		69.2		25.0		5.8
Residency	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	63	87.5	26	100.0	6	100.0
Renters	9	8.7	9	12.5	0	0.0	0	0.0
Total No	104	100.0	72	100.0	26	100.0	6	100.0
Total(%)		100.0		69.2		25.0		5.8
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	10	13.9	3	11.5	0	0.0
3-4	26	25.0	19	26.4	7	26.9	0	0.0
4-6	62	59.6	40	55.6	16	61.5	6	100.0
>6	3	2.9	3	4.2	0	0.0	0	0.0
Total No	104	100	72	100.0	26	100.0	6	100.0
Total(%)		100.0		69.2		25.0		5.8
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	62	86.1	23	88.5	6	100.0
old brick	13	12.5	10	13.9	3	11.5	0	0.0
Total No	104	100.0	72	100.0	26	100.0	6	100.0
Total(%)		100.0		69.2		25.0		5.8

B4 :How unsafe do you				Iiahl-		dougtal	™ T.	of of all
		Fotal		Highly		derately		ot at all
Attributes	No.	%	No.	%	No.	%	No.	%
Sex:			<u> </u>	Τ		Τ		Τ
Male	46	44.2	11	42.3	7	35.0	28	48.3
Female	58	55.8	15	57.7	13	65.0	30	51.7
Total No	104	100.0	26	100.0	20	100.0	58	100.0
Total(%)		100.0		25.0		19.2		55.8
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	7	26.9	5	25.0	14	24.1
20-40	33	31.7	8	30.8	7	35.0	18	31.0
40-60	27	26.0	8	30.8	4	20.0	15	25.9
>60	18	17.3	3	11.5	4	20.0	11	19.0
Total No	104	100	26	100.0	20	100.0	58	100.0
Total(%)		100.0		25.0		19.2		55.8
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	23	88.5	19	95.0	53	91.4
Renters	9	8.7	3	11.5	1	5.0	5	8.6
Total No	104	100.0	26	100.0	20	100.0	58	100.0
Total(%)		100.0		25.0		19.2		55.8
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	4	15.4	2	10.0	7	12.1
3-4	26	25.0	5	19.2	6	30.0	15	25.9
4-6	62	59.6	16	61.5	12	60.0	34	58.6
>6	3	2.9	1	3.8	0	0.0	2	3.4
Total No	104	100	26	100.0	20	100.0	58	100.0
Total(%)		100.0		25.0		19.2		55.8
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	22	84.6	18	90.0	51	87.9
old brick	13	12.5	4	15.4	2	10.0	7	12.1
Total No	104	100.0	26	100.0	20	100.0	58	100.0
Total(%)		100.0		25.0		19.2		55.8

B5 :How unsafe do yo fe	el w.r.t fir	eescape ir	the ne	ighborhoo	od?			
Attributes	r	Fotal	I	lighly	Mo	derately	No	ot at all
	No.	%	No.	%	No.	%	No.	%
Sex:								
Male	46	44.2	25	49.0	13	40.6	8	38.1
Female	58	55.8	26	51.0	19	59.4	13	61.9
Total No	104	100.0	51	100.0	32	100.0	21	100.0
Total(%)		100.0		49.0		30.8		20.2
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	13	25.5	6	18.8	7	33.3
20-40	33	31.7	13	25.5	12	37.5	8	38.1
40-60	27	26.0	14	27.5	9	28.1	4	19.0
>60	18	17.3	11	21.6	5	15.6	2	9.5
Total No	104	100	51	100.0	32	100.0	21	100.0
Total(%)		100.0		49.0		30.8		20.2
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	47	92.2	30	93.8	18	85.7
Renters	9	8.7	4	7.8	2	6.3	3	14.3
Total No	104	100.0	51	100.0	32	100.0	21	100.0
Total(%)		100.0		49.0		30.8		20.2
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	6	11.8	2	6.3	5	23.8
3-4	26	25.0	13	25.5	8	25.0	5	23.8
4-6	62	59.6	31	60.8	20	62.5	11	52.4
>6	3	2.9	1	2.0	2	6.3	0	0.0
Total No	104	100	51	100.0	32	100.0	21	100.0
Total(%)		100.0		49.0		30.8		20.2
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	45	88.2	30	93.8	16	76.2
old brick	13	12.5	6	11.8	2	6.3	5	23.8
Total No	104	100.0	51	100.0	32	100.0	21	100.0
Total(%)		100.0		49.0		30.8		20.2

C: SOCIAL RELATIONSHIPS

Attributes		Total]	Highly	M	oderately	N	ot at all
	No.	%						
Sex:			No.	%	No.	%	No.	%
Male	46	44.2	29	40.3	13	52.0	4	57.1
Female	58	55.8	43	59.7	12	48.0	3	42.9
Total No	104	100.0	72	100.0	25	100.0	7	100.0
Total(%)		100.0		69.2		24.0		6.7
Age:	No.	%	No.	%	No.	%	No.	%
<20	26	25.0	20	27.8	4	16.0	2	28.6
20-40	33	31.7	17	23.6	13	52.0	3	42.9
40-60	27	26.0	22	30.6	3	12.0	2	28.6
>60	18	17.3	13	18.1	5	20.0	0	0.0
Total No	104	100	72	100.0	25	100.0	7	100.0
Total(%)		100.0		69.2		24.0		6.7
Residency:	No.	%	No.	%	No.	%	No.	%
Locals	95	91.3	66	91.7	23	92.0	6	85.7
Renters	9	8.7	6	8.3	2	8.0	1	14.3
Total No	104	100.0	72	100.0	25	100.0	7	100.0
Total(%)		100.0		69.2		24.0		6.7
No of Storey	No.	%	No.	%	No.	%	No.	%
<3	13	12.5	10	13.9	2	8.0	1	14.3
3-4	26	25.0	22	30.6	4	16.0	0	0.0
4-6	62	59.6	38	52.8	18	72.0	6	85.7
>6	3	2.9	2	2.8	1	4.0	0	0.0
Total No	104	100	72	100.0	25	100.0	7	100.0
Total(%)		100.0		69.2		24.0		6.7
Type of building	No.	%	No.	%	No.	%	No.	%
concrete	91	87.5	62	86.1	23	92.0	6	85.7
old brick	13	12.5	10	13.9	2	8.0	1	14.3
Total No	104	100.0	72	100.0	25	100.0	7	100.0
Total(%)		100.0		69.2		24.0		6.7

C1(A): Reasons for feeling positive in the neighborhood										
Attributes	Total		and	Good friends and friendly neighbors Attac			School Accessibility		Own Business	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sex:					•				•	
Male	39	45.9	12	37.5	17	39.5	6	100.0	4	100.0
Female	46	54.1	20	62.5	26	60.5	0	0.0	0	0.0
Total No	85	100.0	32	100.0	43	100.0	6	100.0	4	100.0
Total(%)		100.0		37.6		50.6		7.1		4.7
Age:	No.	%	No.	%	No.	%	No.	%	No.	%
<20	23	27.1	9	28.1	8	18.6	6	100.0	0	0.0
20-40	26	30.6	10	31.3	16	37.2	0	0.0	0	0.0
40-60	24	28.2	9	28.1	11	25.6	0	0.0	4	100.0
>60	12	14.1	4	12.5	8	18.6	0	0.0	0	0.0
Total No	85	100	32	100.0	43	100.0	6	100.0	4	100.0
Total(%)		100.0		37.6		50.6		7.1		4.7
Residency:	No.	%	No.	%	No.	%	No.	%	No.	%
Locals	78	91.8	30	93.8	43	100.0	1	16.7	4	100.0
Renters	7	8.2	2	6.3	0	0.0	5	83.3	0	0.0
Total No	85	100.0	32	100.0	43	100.0	6	100.0	4	100.0
Total(%)		100.0		37.6		50.6		7.1		4.7
No of Storey	No.	%	No.	%	No.	%	No.	%	No.	%
<3	12	14.1	5	15.6	5	11.6	1	16.7	1	25.0
3-4	23	27.1	12	37.5	10	23.3	1	16.7	0	0.0
4-6	48	56.5	15	46.9	26	60.5	4	66.7	3	75.0
>6	2	2.4	0	0.0	2	4.7	0	0.0	0	0.0
Total No	85	100	32	100.0	43	100.0	6	100.0	4	100.0
Total(%)		100.0		37.6		50.6		7.1		4.7
Type of building	No.	%	No.	%	No.	%	No.	%	No.	%
concrete	73	85.9	27	84.4	38	88.4	5	83.3	3	75.0
old brick	12	14.1	5	15.6	5	11.6	1	16.7	1	25.0
Total No	85	100.0	32	100.0	43	100.0	6	100.0	4	100.0
Total(%)		100.0		37.6		50.6		7.1		4.7

C2 : Are you satisfied with the networking environment in the neighborhood ?										
Attributes	r	Γotal	F	lighly	Mo	derately	No	t at all		
	No.	No. % 1		%	No.	%	No.	%		
Sex:										
Male	55	52.9	27	44.3	18	66.7	10	62.5		
Female	49	47.1	34	55.7	9	33.3	6	37.5		
Total No	104	100.0	61	100.0	27	100.0	16	100.0		
Total(%)		100.0		58.7		26.0		15.4		
Age:	No.	%	No.	%	No.	%	No.	%		
<20	26	25.0	18	29.5	4	14.8	4	25.0		
20-40	33	31.7	14	23.0	14	51.9	5	31.3		
40-60	27	26.0	16	26.2	6	22.2	5	31.3		
>60	18	17.3	13	21.3	3	11.1	2	12.5		
Total No	104	104 100		100.0	27	100.0	16	100.0		
Total(%)		100.0		58.7		26.0		15.4		
Residency:	No.	%	No.	%	No.	%	No.	%		
Locals	95	91.3	57	93.4	26	96.3	12	75.0		
Renters	9	8.7	4	6.6	1	3.7	4	25.0		
Total No	104	100.0	61	100.0	27	100.0	16	100.0		
Total(%)		100.0		58.7		26.0		15.4		
No of Storey	No.	%	No.	%	No.	%	No.	%		
<3	13	12.5	9	14.8	2	7.4	2	12.5		
3-4	26	25.0	18	29.5	4	14.8	4	25.0		
4-6	61	58.7	33	54.1	19	70.4	9	56.3		
>6	4	3.8	1	1.6	2	7.4	1	6.3		
Total No	104	100	61	100.0	27	100.0	16	100.0		
Total(%)		b		58.7		26.0		15.4		
Type of building	No.	%	No.	%	No.	%	No.	%		
concrete	91	87.5	52	85.2	25	92.6	14	87.5		
old brick	13	12.5	9	14.8	2	7.4	2	12.5		
Total No	104	100.0	61	100.0	27	100.0	16	100.0		
Total(%)		100.0		58.7		26.0		15.4		

C3: How attached do you feel towards your neighborhood?										
Attributes	7	Γotal	I	lighly	Moderately		No	ot at all		
	No.	No. %		%	No.	%	No.	%		
Sex:										
Male	46	44.2	33	41.8	8	44.4	5	71.4		
Female	58	55.8	46	58.2	10	55.6	2	28.6		
Total No	104	100.0	79	100.0	18	100.0	7	100.0		
Total(%)		100.0		76.0		17.3		6.7		
Age:	No.	%	No.	%	No.	%	No.	%		
<20	26	25.0	13	16.5	11	61.1	2	28.6		
20-40	33	31.7	27	34.2	4	22.2	2	28.6		
40-60	27	26.0	24	30.4	3	16.7	0	0.0		
>60	18	17.3	15	19.0	0	0.0	3	42.9		
Total No	104	100	79	100.0	18	100.0	7	100.0		
Total(%)		100.0		76.0		17.3		6.7		
Residency	No.	%	No.	%	No.	%	No.	%		
Locals	95	91.3	76	96.2	15	83.3	4	57.1		
Renters	9	8.7	3	3.8	3	16.7	3	42.9		
Total No	104	100.0	79	100.0	18	100.0	7	100.0		
Total(%)		100.0		76.0		17.3		6.7		
No of Storey	No.	%	No.	%	No.	%	No.	%		
<3	13	12.5	7	8.9	3	16.7	3	42.9		
3-4	26	25.0	20	25.3	5	27.8	1	14.3		
4-6	62	59.6	49	62.0	10	55.6	3	42.9		
>6	3	2.9	3	3.8	0	0.0	0	0.0		
Total No	104	100	79	100.0	18	100.0	7	100.0		
Total(%)		100.0		76.0		17.3		6.7		
Type of building	No.	%	No.	%	No.	%	No.	%		
concrete	91	87.5	72	91.1	15	83.3	4	57.1		
old brick	13	12.5	7	8.9	3	16.7	3	42.9		
Total No	104	100.0	79	100.0	18	100.0	7	100.0		
Total(%)		100.0		76.0		17.3		6.7		

C4:Are you satisfied with your jatra(festivals) that happen in the neighborhood w.r.t social spaces and building designs?

Attributes		Fotal	ŀ	Highly	Mo	derately	Not at all		
	No.	%							
Sex:			No.	%	No.	%	No.	%	
Male	46	44.2	20	38.5	17	44.7	9	64.3	
Female	58	55.8	32	61.5	21	55.3	5	35.7	
Total No	104	100.0	52	100.0	38	100.0	14	100.0	
Total(%)		100.0		50.0		36.5		13.5	
Age:	No.	%	No.	%	No.	%	No.	%	
<20	26	25.0	11	21.2	7	18.4	8	57.1	
20-40	33	31.7	20	38.5	12	31.6	1	7.1	
40-60	27	26.0	13	25.0	11	28.9	3	21.4	
>60	18	17.3	8	15.4	8	21.1	2	14.3	
Total No	104	100	52	100.0	38	100.0	14	100.0	
Total(%)		100.0		50.0		36.5		13.5	
Residency:	No.	%	No.	%	No.	%	No.	%	
Locals	95	91.3	52	100.0	34	89.5	9	64.3	
Renters	9	8.7	0	0.0	4	10.5	5	35.7	
Total No	104	100.0	52	100.0	38	100.0	14	55.6	
Total(%)		100.0		50.0		36.5		13.5	
No of Storey	No.	%	No.	%	No.	%	No.	%	
<3	13	12.5	7	13.5	5	13.2	1	7.1	
3-4	26	25.0	13	25.0	9	23.7	4	28.6	
4-6	62	59.6	30	57.7	23	60.5	9	64.3	
>6	3	2.9	2	3.8	1	2.6	0	0.0	
Total No	104	100	52	100.0	38	100.0	14	100.0	
Total(%)		100.0		50.0		36.5		13.5	
Type of building	No.	%	No.	%	No.	%	No.	%	
concrete	91	87.5	45	86.5	33	86.8	13	92.9	
old brick	13	12.5	7	13.5	5	13.2	1	7.1	

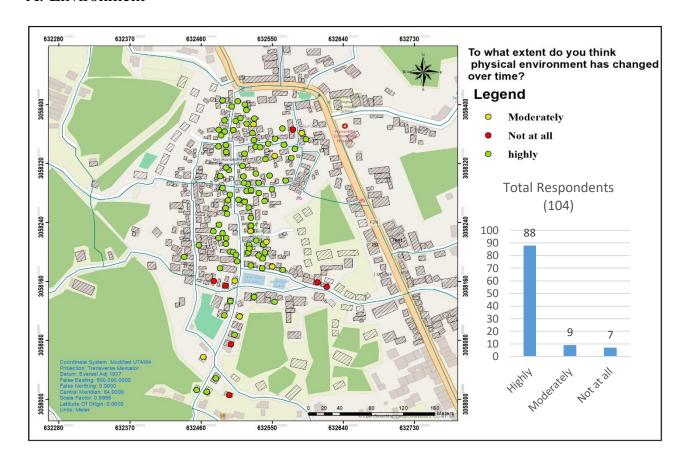
Total No	104	100.0	52	100.0	38	100.0	14	100.0
Total(%)		100.0		50.0		36.5		13.5

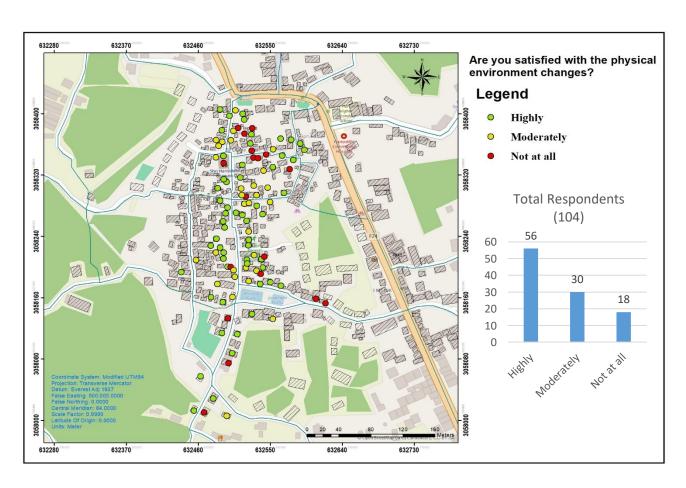
C5: Purpose for courtyard?										
Attributes	Total		Gath	nerings	Pa	rking	Playing		Sun Basking	
	No.	%	No.	%	No.	%	No.	%	No.	%
Sex:										_
Male	39	42.4	21	51.2	5	50.0	6	31.6	7	31.8
Female	53	57.6	20	48.8	5	50.0	13	68.4	15	68.2
Total No	92	100.0	41	100.0	10	100.0	19	100.0	22	100.0
Total(%)		100.0		44.6		10.9		20.7		23.9
Age:	No.	%	No.	%	No.	%	No.	%	No.	%
<20	23	25.0	7	17.1	3	30.0	12	63.2	1	4.5
20-40	30	32.6	13	31.7	4	40.0	4	21.1	9	40.9
40-60	20	21.7	9	22.0	2	20.0	1	5.3	8	36.4
>60	19	20.7	12	29.3	1	10.0	2	10.5	4	18.2
Total No	92	100	41	100.0	10	100.0	19	100.0	22	100.0
Total(%)		100.0		44.6		10.9		20.7		23.9
Residency:	No.	%	No.	%	No.	%	No.	%	No.	%
Locals	84	91.3	38	92.7	10	100.0	15	78.9	21	95.5
Renters	8	8.7	3	7.3	0	0.0	4	21.1	1	4.5
Total No	92	100.0	41	100.0	10	100.0	19	100.0	22	100.0
Total(%)		100.0		44.6		10.9		20.7		23.9
No of Storey	No.	%	No.	%	No.	%	No.	%	No.	%
<3	13	14.1	4	9.8	2	20.0	5	26.3	2	9.1
3-4	24	26.1	13	31.7	4	40.0	3	15.8	4	18.2
4-6	53	57.6	23	56.1	3	30.0	11	57.9	16	72.7
>6	2	2.2	1	2.4	1	10.0	0	0.0	0	0.0
Total No	92	100	41	100.0	10	100.0	19	100.0	22	100.0
Total(%)		100.0		44.6		10.9		20.7		23.9
Type of building	No.	%	No.	%	No.	%	No.	%	No.	%

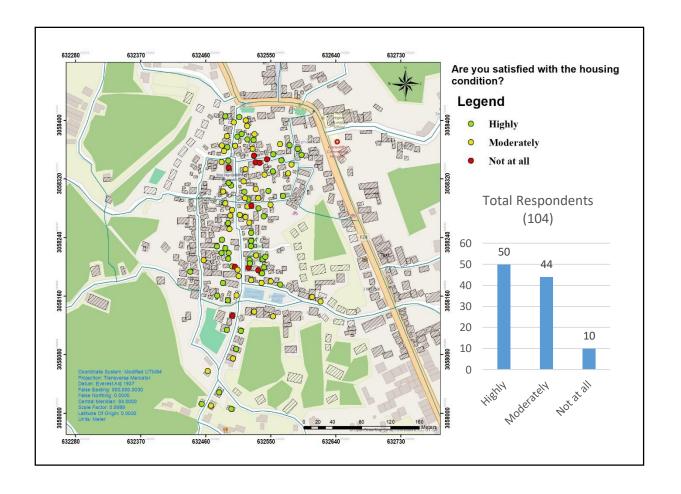
Total(%)		100.0		44.6		10.9		20.7		23.9
Total No	92	100.0	41	100.0	10	100.0	19	100.0	22	100.0
old brick	13	14.1	4	9.8	2	20.0	5	26.3	2	9.1
concrete	79	85.9	37	90.2	8	80.0	14	73.7	20	90.9

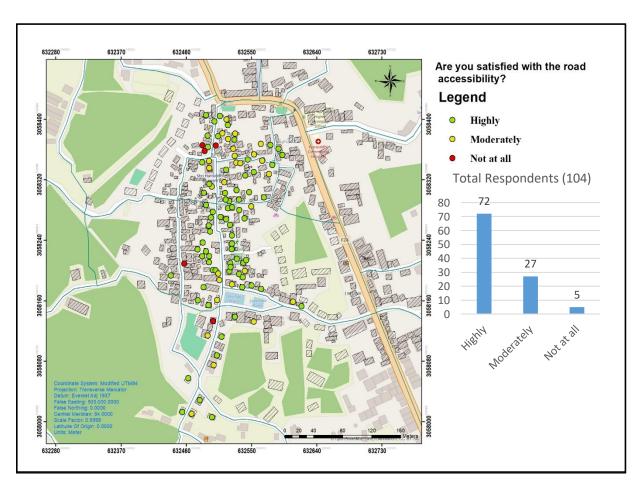
Results of Questionnaire: Locationwise

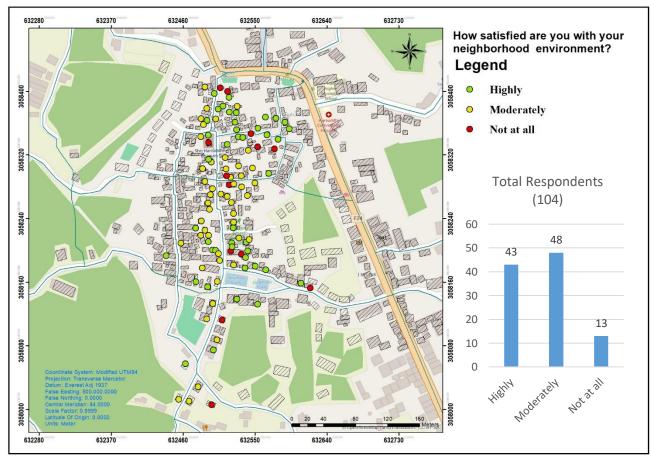
A: Environment

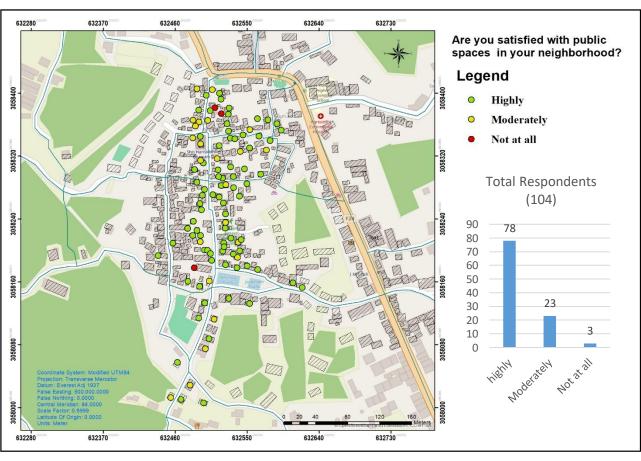


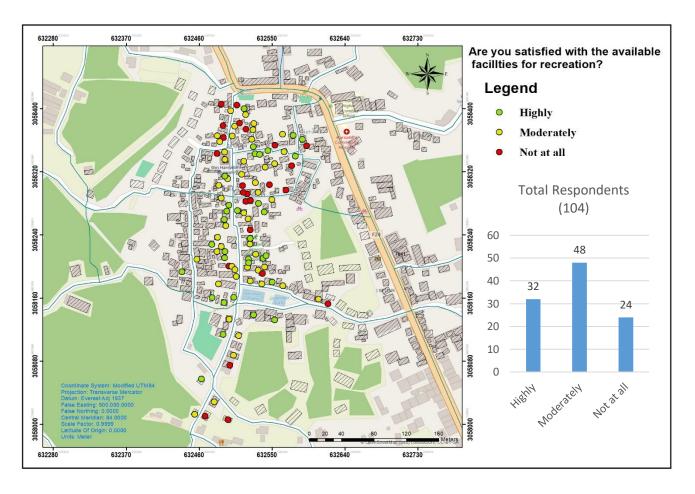


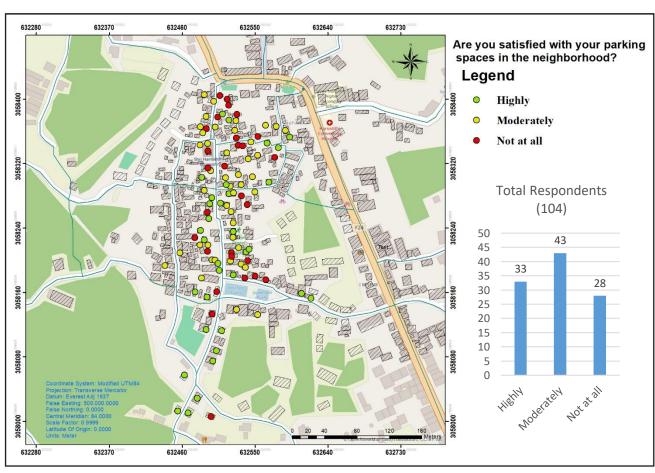


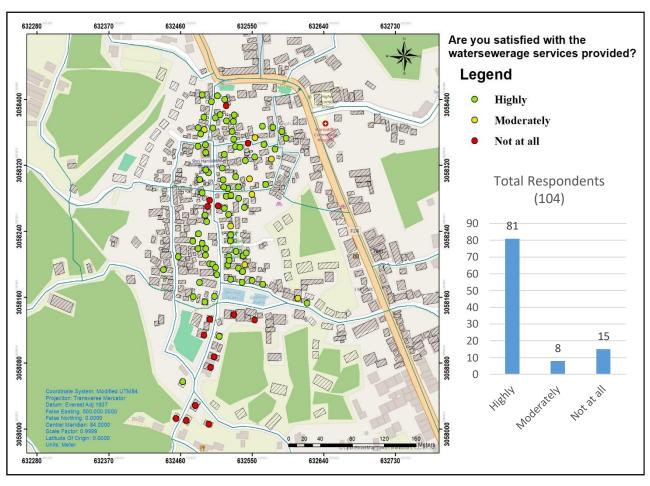


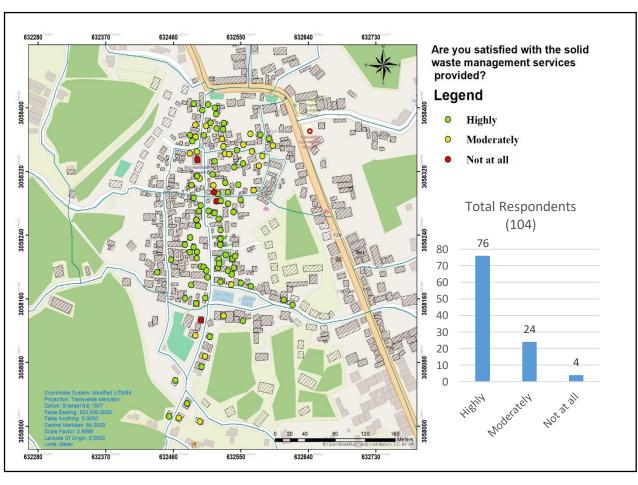


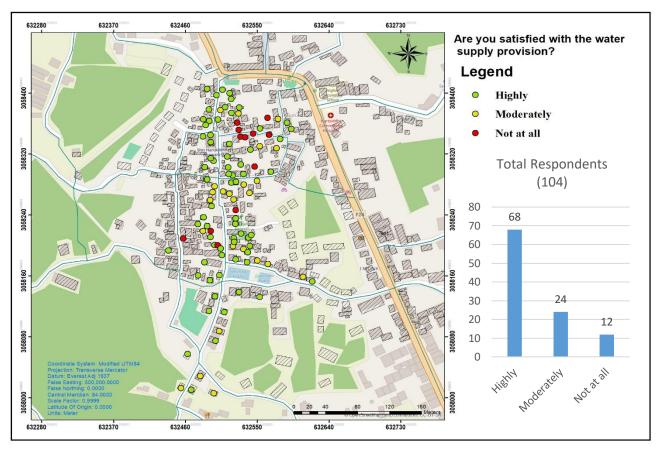


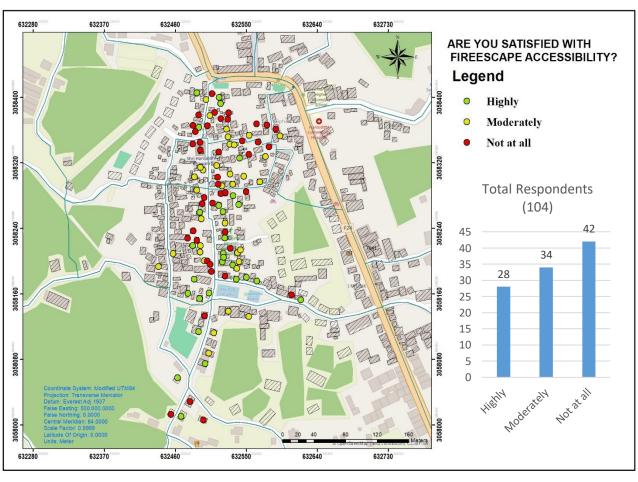


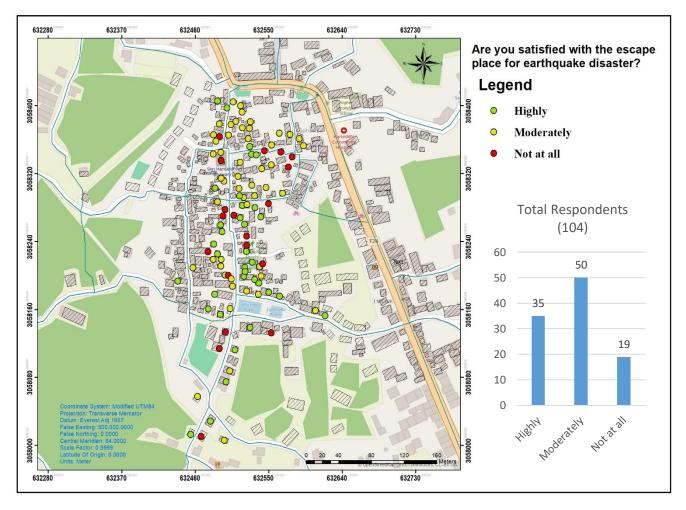




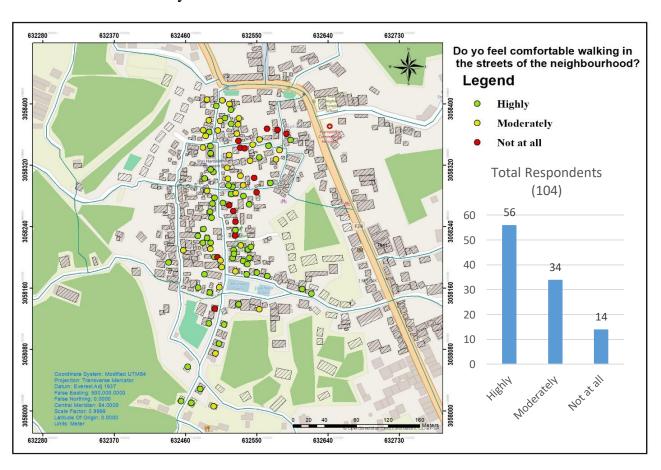


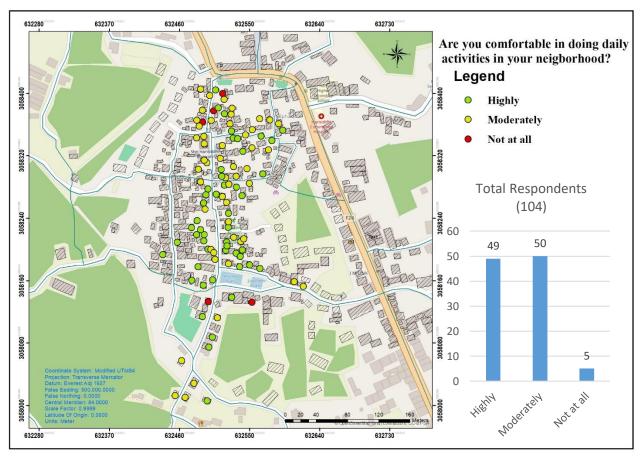


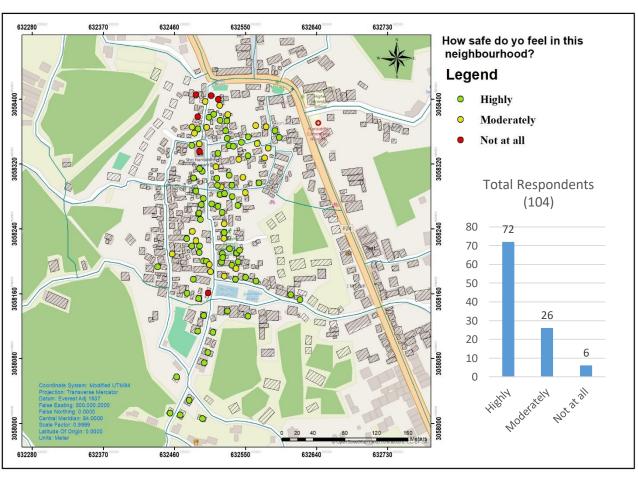


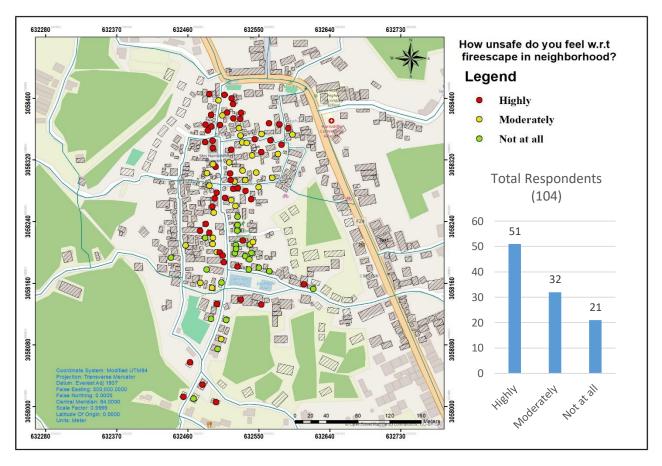


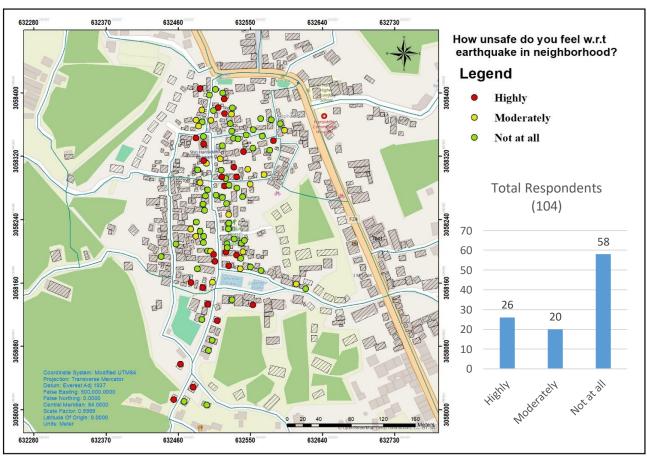
B: Comfort and Safety











C: Social Relationships

