



***Priya Bhagat is an Architecture student currently at Acme Engineering College, Kathmandu. Priya has developed a strong foundation on architectural principles focusing on creating sustainable and innovative design. Beyond the classroom she is deeply engage in extra curriculum activities that cultivate a well-rounded approach to architecture. With a love for arts and model making she spends a free time exploring new architectural style.***



***Sabina Khadgi is an architecture student at Acme Engineering College, where she is passionate about the field of architecture and the art of creating innovative building designs. In addition to her academic interests, Sabina enjoys reading books and finds joy in dancing, which allows her to express her creativity in different forms.***



***Salima Maharjan is a dedicated architecture student at Acme Engineering College. With a strong passion for architectural design, she is committed to exploring the creative and technical aspects of the field. In addition to her love for architecture, she enjoys expressing herself through painting, particularly in abstract styles and diverse subjects, which allows her to blend her artistic talents with her architectural vision.***



***Samikshya Khadka is an architecture student at Acme Engineering College, where she is deeply passionate about designing buildings that are both innovative and functional. Her love for architecture drives her to constantly seek new ideas and inspiration in the field. Samikshya enjoys traveling, which allows her to experience diverse cultures and architectural styles firsthand. She also has a great appreciation for trying different cuisines, making her explorations as much about food as they are about design.***



***Shresha Munikar is a dedicated architecture student at Acme Engineering College. Alongside her academic pursuits, Shresha is passionate about photography, capturing the world through her lens. She is also musically inclined, playing various instruments in her free time. Her creativity extends to crafting and drawing, and she enjoys staying active by playing basketball. An avid explorer, she loves visiting new places, adding to her diverse range of interests and experiences***

# **Redevelopment of Mahabaudha commercial areas in Kathmandu metropolitan city**

***Priya Bhagat, Sabina Khadgi, Salima Maharjan, Samiksha Khadka and Shresha Munikar***

***B. Arch. 5<sup>th</sup> year students***

***Department of Architecture, Acme Engineering College, Kathmandu, Nepal***

## **2.1 Contextual background**

Redevelopment means re-using and improving real estate in a neighborhood or city by adding or rehabilitating buildings, making more marketable properties. Redevelopment is not just constructing buildings; it ensures that residents of a community are empowered to improve their quality of life and environment as a result of sound planning practices. Redevelopment is typically perceived as the physical placement and regulation of land uses and structures.

Mahabaudha commercial complexes are situated in the dense and busy location of ward 27 of Kathmandu metropolitan city. It comprises of whole sale market of different items, ranging from electrical goods to cloths and garments including restaurant and eating places. In fact, these residential neighborhoods were converted into whole sale market by combining many small courtyards and converting the residential houses into shops through development of connecting corridors. The upper floors are being used

for storage of goods. The whole area is congested due to huge flow of people and narrow road network. Parking as well as loading and unloading of goods are problematic. Moreover, the whole complex is vulnerable to earthquake and fire hazards. However, due to its strategic location and famous for business activities, the area is still flourishing and there is a huge potential for management of the whole area. Acknowledging all these facts, this paper intends to explore the possibility of redevelopment of these vulnerable commercial spaces.

## **2.2 Aims and objectives**

The main aim of this paper is to explore the possibility of redevelopment of the area. The specific objectives are:

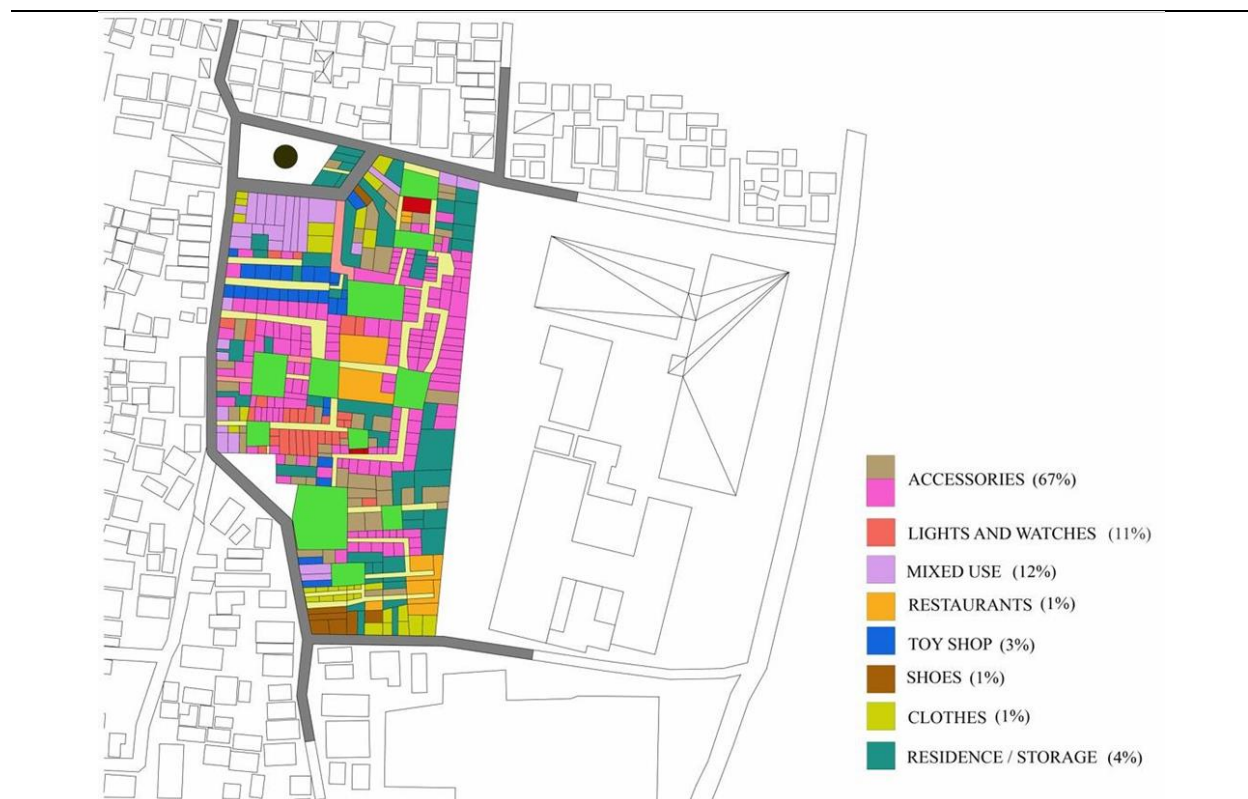
- (a) to study the present situation of the area especially in terms of space allocation and type of business activities;*
- (b) to find out key problems, issues and potentials from redevelopment perspective; and*
- (c) to propose redevelopment plan along with detailing.*

## **2.3 Study methodology**

Both primary and secondary data were collected through different techniques. Primary information was gathered through frequent visiting the site and mapping the areas in terms of shop type, vehicular and pedestrian movement and parking location. Also semi-structured questionnaire survey was carried out with different shop owners. Numerous literatures published in different forms were critically review to explore its trend of development and issues associated with the area. Thematic maps were created using satellite images.

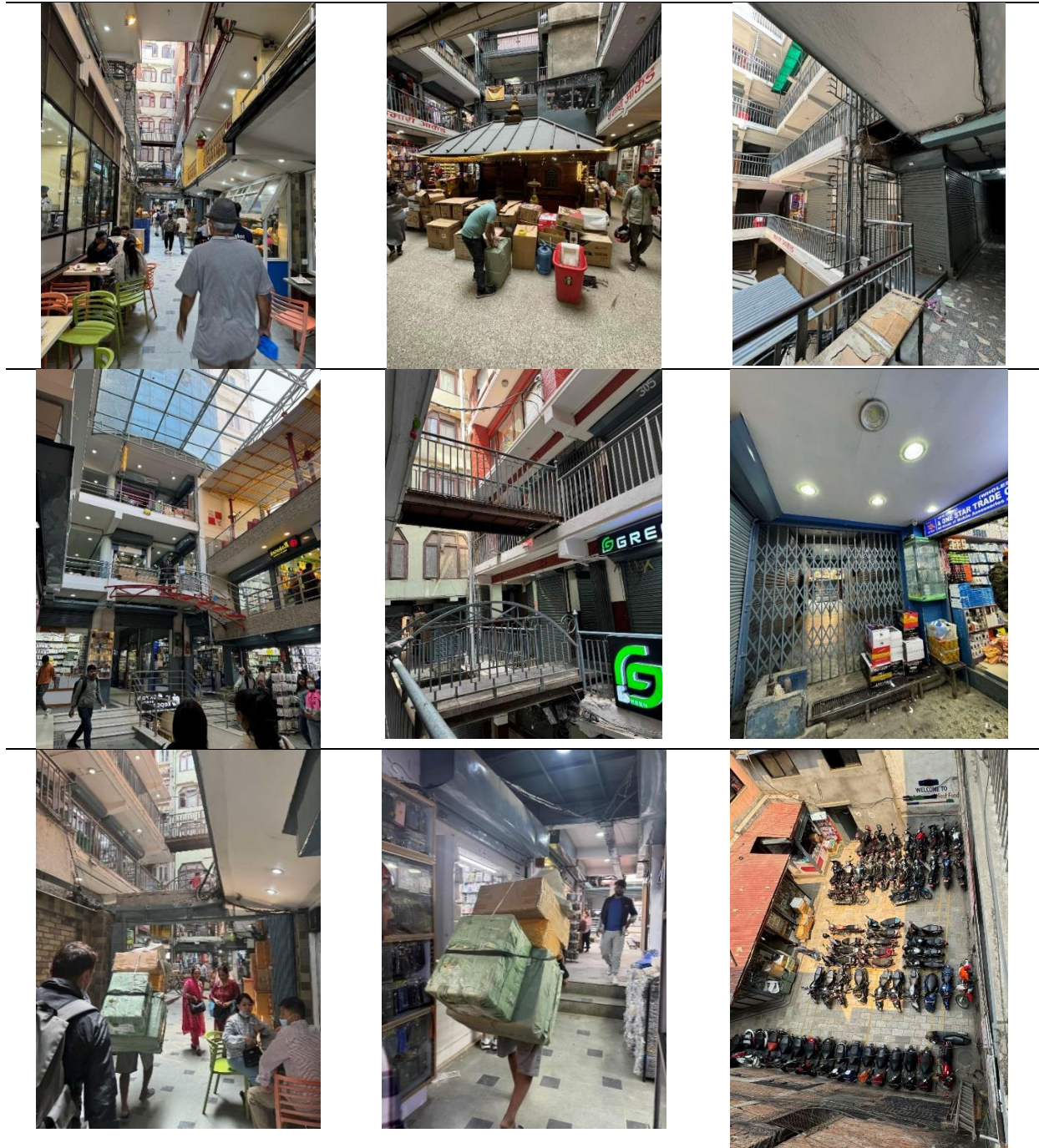
## 2.4 Existing situation of the commercial complexes at Mahabaudha

The existing commercial complexes of Mahabaudha is surrounded by road from three sides with east side the Bir hospital. At present there are numerous houses around various courtyards and they are all linked with pedestrian paths only, in most cases through under building. There are at least ten number of courtyards of different size within the study area. The ground floor houses many shops selling diverse items: accessories, lighting and watches, shoes, toy and cloths, besides restaurants (Fig. 2.1). There are residents and storage spaces on the upper floors. All the courtyards and shops are connected through narrow pedestrian paths only (Fig. 2.2)



**Fig. 2.1 Various shops at the commercial complexes at Mahabaudha, KMC**



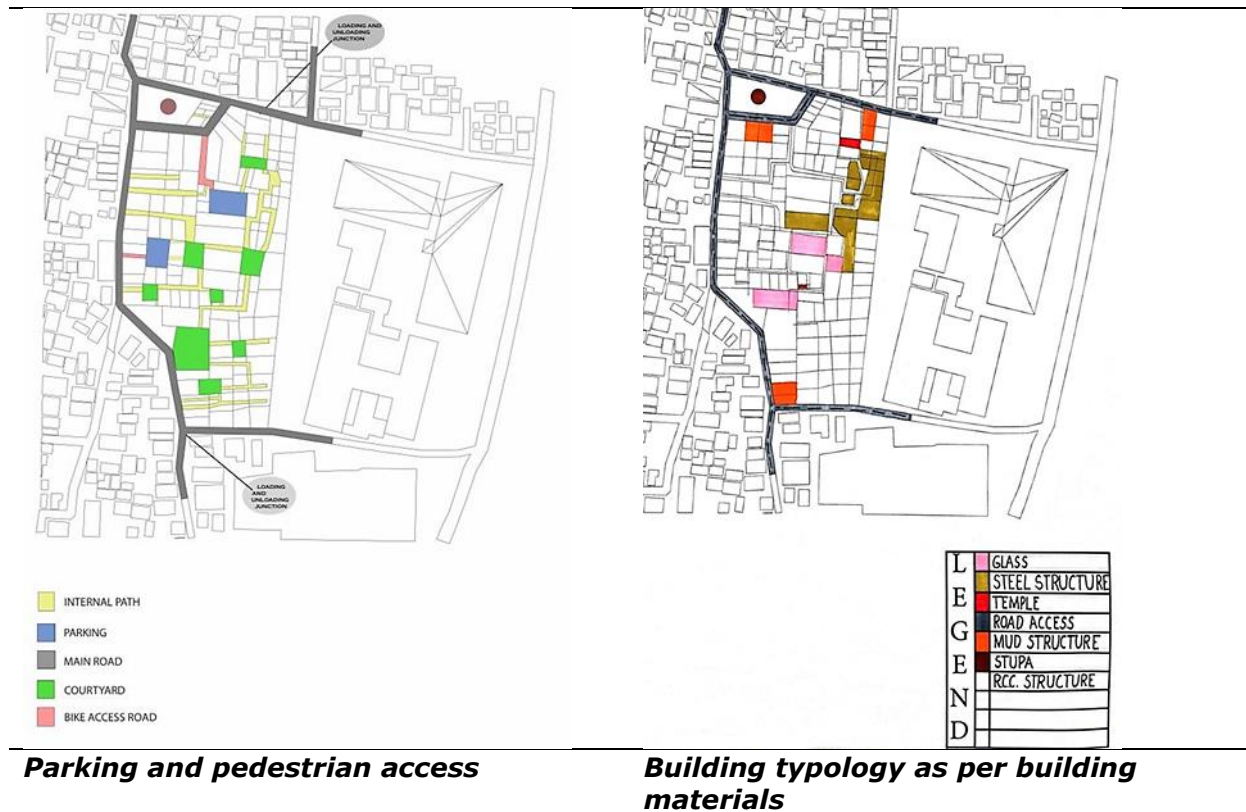




**Fig. 2.2 Various activities within the complex**

**As there is no four-wheel vehicular parking within the complexes, all loading and unloading activities take place at two sides on the road itself. Though there are eight different access within the complexes from outside road, all of them are of pedestrian path only and almost all of them are through under building (Fig. 2.3a). Out of them, one two access leading to two different courtyards are used by motorbike users for parking their bikes. In addition to these two courtyards, there are additional eight different but small courtyards with the complexes. The buildings within the complexes are dominated by reinforced cement concrete (RCC) structures but there also exist some buildings of steel structure and mud joined buildings (Fig. 2.3b).**





**Fig. 2.3 Parking provisions and building typology of the study area**

## 2.5 Issues, problems and potentials

### *Space misuse and inconvenient for shop owners and customers*

As the area was developed on a piecemeal basis over a long time by converting residential neighborhoods into whole sale market, the whole place is very chaotic and confusing for visitors. The vehicular access is available for peripheral shops only from three sides, the rest of the shop owners have found it difficult for loading and unloading the goods. There are different types of shops inside the same neighborhoods. The circulation space among various shops and blocks are so confusing.

### ***Fire and earthquake vulnerability***

**This area is highly vulnerable to fire and earthquake. The fire can occur at any time due to electric shock. There is also a famous restaurant inside the complex. Many people visit this area on daily basis. In case of earthquake, it will be very difficult to escape from this area due to narrow and confusing access. Moreover, the existing various courtyards have become wells due to high rise building constructions around them. Also, fire hazard can occur at any shop located inside the complex due to short circuit. In such a case, it will be very difficult to extinguish the fire due to its location and access. Also, only few residential families are living in this place at now. Most of the upper floors are also occupied by either shops or storage spaces.**

### ***Potential for redevelopment***

**This area has high potential for redevelopment not only due to its strategic location in the city core area but also it has gained a fame. This whole sale market is visited by many middle class people from the valley as well as outside visitors. Due to expansion on ad-hoc basis over time, there is wastage of commercial spaces, besides high vulnerability of earthquake and fire. Visitors find difficult in parking their vehicles. The surrounding roads are not only busy but they are also narrow and difficult for ambulance and fire brigade in case of a disaster or big accident. The Kathmandu metropolitan city has recently changed its building regulations. Accordingly, this area can not have FAR of 3.5 or 8 story high building against 5 story height restriction (45 feet) in the earlier building byelaws.**

## 2.6 Proposal for redevelopment and detailing

The redevelopment plan has divided the whole site into eleven different blocks with vehicular and pedestrian access to each of them (Fig. 2.4). This plan will be executed through demolition of all the existing buildings in the site. The commercial retail shops are proposed on the ground floor whereas restaurants and office spaces were created on the upper floors.



**Fig. 2.4 Proposed redevelopment plan with allocation of different shops on different blocks**

The surrounding areas used to be residential areas till recent past and most of the houses in from of the existing main façade have building with retail shops on the ground and residential uses on the upper floors.

Hence, the scale of the proposed building blocks should be compatible and fits into the local context (Fig. 2.5). Moreover, the outdoor spaces are detailed out for pedestrian friendly with street furniture.



**Fig. 2.5 Proposed various building blocks of the complex along with outdoor spaces**

After completion of construction of all blocks, the earlier congested areas will become more open to the surrounding existing areas with many building blocks for various activities. Each building block will have mixed uses of retail and commercial on the ground, restaurant and offices on the middle and residential units on the top floor (Fig. 2.6).





***Fig. 2.6 Front and back elevations of the proposed building blocks***