

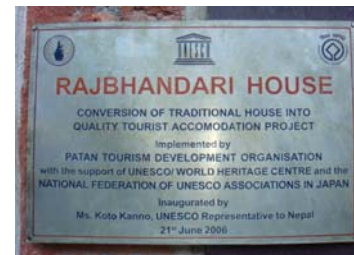
# Preservation and Maintenance of Rajbhandari House

For

**Community Awareness  
In the Conservation and Management of Private Historic  
Buildings in Lalitpur Sub-Metropolitan City, Nepal**

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## Abstract

The inner city core of Lalitpur Sub-Metropolitan City, popularly known as Patan City was enlisted by UNESCO as a World Heritage Site in 1979. Since then the Lalitpur Sub-Metropolitan City Office, the Department of Archaeology and other line agencies were very actively involved in the conservation of socio-culturally important historical monuments of national and international importance.

In latter phases it was realized that emphasizing only on public monuments without considering the private traditional housing stock would not lead us to our targeted goal in the conservation and management of historical Patan City. Hence, this case paper focuses on the importance of preservation and maintenance of historical private houses and the possible ways on how to stop demolition of traditional buildings and to retain Patan as internationally attractive World Heritage Site. The chosen object for study is Rajbhandari House, a traditional historical residential house converted into Quality Tourist Accommodation in an Adaptive Re-use approach.

## 1. Introduction

Lalitpur Sub-metropolitan City has about 200,000 people distributed within 15.4 square kilometres of area. According to the settlement pattern the Sub-Metropolitan City can be divided into three distinct parts: the inner city core, the surrounding mixed settlement area and the outer fringe area with new development.



Monument Zone in World Heritage Site



Settlement Outside WHS



Inner City Core of Patan City near the World Heritage Monument Zone

The Monument site of the Patan World Heritage Site represents a highly developed architectural expression of religious, political and cultural life of Kathmandu Valley, with a concentration of monuments unique in the world. Because of the rich cultural and traditional architectural heritage within the inner city area, the core area was enlisted by UNESCO as a World Heritage Site (WHS) in 1979. It gave a good opportunity for the city to explore more about the potentiality of socio-economic development of the city through conservation. Since the day the city was enlisted in the UNESCO World Heritage List, there have been many conservation works implemented in the city by the Municipality, Department of Archeology and many other related line agencies.

The Municipality and the line agencies started focussing more and more on public monuments like temples, shrines, rest houses, traditional stone spouts, etc. There were many donor agencies interested to invest for the conservation of the historic city. On one side the performance was becoming more and more better. Most of the internationally important monuments had been preserved. But on the other side, the private housing stock was being overlooked and they were being dilapidated day by day. There was not enough initiatives for preserving the private residential buildings. The city core was changing due to the development pressure created by population pressure in the city. In the present situation, the private houses are being dismantled and replaced by new RCC structures. So, there was always a necessity for bringing awareness among the city dwellers for conserving their traditional houses.

Rajbhandari House is one of the good and replicable project which can bring awareness in the community about the importances of conserving historical residential houses. Rajbhandari House is a traditional private Newari residential house which was converted into a quality tourist

accommodation with an adaptive re-use approach. Hence, for the Conservation and Management of Private Historic Buildings in Lalitpur Sub-Metropolitan City this house must be preserved and maintained in time.

## 2. Background

### 2.1 Conservation Activities in Patan City

The Sub-Metropolitan City Office was very actively involved in the conservation of socio-culturally important historical monuments of national and international importances. There were more than a hundred projects on conservation alone implemented by the municipality each year. The focus was mainly on the conservation and restoration of temples, shrines, resthouses, the traditional stone spouts, rehabilitation of historical ponds, brick and stone pavings in the historical inner city area.



Degutaleju Temple dating back to 16<sup>th</sup> Century in the World Heritage Site Before and after conservation



Pimbahal Pokhari, a traditional historic pond which was rehabilitated on the basis of old sketch records



A Traditional Stone Spout dating back to 6<sup>th</sup> Century which was repaired and maintained by the Sub-Metropolitan City Office

## 2.2 Change in the Historical Street scape and UNESCO's Concern

The Sub-Metropolitan City Office was successfully implementing the projects on the conservation of monuments and public buildings. The related line agencies and the international donor agencies were also supporting technically and financially in this endeavour. The work was quite satisfactorily being performed. But at the time the Sub-Metropolitan City was focussing more on the monuments the private houses were being overlooked. Due to modern movements and technology many new buildings are constructed which are inappropriately designed and strikingly modern, resulting in gross and palpable loss of harmony, scale and character in the streetscape.

This trend of change was noticed in the important historic streetscape of many places within and outside the world Heritage Site. The construction of non compatible buildings were considerably changing the historical setting of public and religious monuments. Thus in 1993 UNESCO committee expressed deep concern over the state of conservation of the site and considered the possibility of placing this site on the List of World Heritage in Danger.

Due to the continued deterioration within the World Heritage site, the World Heritage Committee at its 27<sup>th</sup> session in 2003 decided to inscribe the property on the List of World Heritage in Danger. Following this decision, an international technical workshop on the Kathmandu Valley World Heritage Site in Danger was organized in May 2004 and a numbers of conclusions drawn. This workshop concluded with recommendations to strengthen and capacity building of the LSMC heritage unit to manage conservation workwithin World Heritage site. As per the recommendation, the Sub-Metropolitan City upgraded its Heritage Unit to Heritage Conservation Section. Culture and Archaeology Unit is established. The Sub-Metropolitan City office worked vigourously on safe guarding the cultural heritage once again with different strategies. It started to make inventories of the buildings within the World Heritage Site. The inventory of street facades were prepared. The visual improvement of the historic street scape were being worked out. But the tasks were not still effective. There was a feeling within the Municipality that something more has to be done.

## 2.3 Patan conservation scenario



Traditional Buildings Being replaced by new RCC Buildings



Elevation of Houses in Patan. There is no relationship and sympathy for old houses when building new cement concrete structure. photo: Student's project work

Patan conservation scenario for the next years is not positive: if the actual trend of traditional houses' demolition will continue, total disappearing will be expected in the year 2025 and with them an important opportunity for development. Patan, one of the seven monument zones nominated World Heritage in 1979 in the Kathmandu Valley, is now declared in the UNESCO List in Danger due to architectural erosion of residential houses. Nowadays, traditional buildings are demolished and substituted with low quality RCC modern structures destroying the city original features.

The forces of transformation and demolition which led to the actual rate of erosion are multiple: starting with modern-life spatial requirements related to society transformation, absence of a previous cultural concept of conservation, poor support from Municipality among others. However two main problems were identified as key points to address erosion 1. generalized false idea about the impossibility to adapt traditional houses to modern life and 2. low economic value of traditional houses; as a result, maintenance or restoration of the house is not considered an advantage for the owner. Erosion has reached 43.7% of total houses, as find out by the analysis of all residential buildings in the Monument Zone (1098 units), conducted by the research group mission 2004 (UNESCO-University of Venice):

How to stop demolition of traditional buildings in Patan Monument Zone? The conclusion of the research could be resumed in the necessity of a short term effective action, focused on offer the opportunity to maintain, restore, or proper transform traditional houses through: 1. information and awareness campaign, 2. bank's financing and 3. technical assistance from Municipality, in the context of the city center general upgrading strategy. UNESCO nomination and heritage safeguarding should be pointed out as an important priority, as rehabilitation could be seen as an opportunity to reinforce the existing social tissue and obtain economic advantages such as activation of local economy and tourism: paradigm of conservation in opposition to development should be changed into development (cultural and economic) through conservation.

One of the major out come of the research work was the model developed on "How to stop demolition of traditional buildings in Patan Monument Zone?" The problem tree and the objective tree given below illustrates the points of intervention.

## 2.4 Municipal Priority Shift to Residential Buildings

Patan City represents the legacy of the Newar people, farmers, renowned artisans and craftsmen who shaped Patan and gave the city its distinct identity. The city represents not only the monuments, but the compact dwelling of three and four story residences built in brick and timber capped with pitched and tiled overhanging roofs create a pleasant homogeneity in the streetscape.

In the past, preservation efforts have focused on high profile monuments. In course of time seeing the changing taking place in the heritage sites, this emphasis has now changed and the focus has now shifted to the conservation of private residences and structures. For any historical city and the WHS, any in loss traditional vernacular architecture, historic urban elements and fabric is loss of authenticity and integrity of the urban character of the historic city. Also the problems such as the natural deterioration of traditional housing stock, lack of funds and changing lifestyles make this task more complicated.

Private residences constitute the most endangered elements of the Patan Monument Zone. They function as the fabric, which holds together Patan's traditional patterns of life and its cultural heritage. Traditionally they range from stunning examples of Newar artistry to handsome compositions exhibiting the decorative grace of the Shah and Rana styles. Collectively, private residences form a rich urban scene that provides a backdrop for the temples, shrines, courtyards and bahals.

Conservation of residential buildings is different than monuments. Houses have owners with needs, interests and spatial requirements for this reason conservation don't exist, transformation is inherent in a living space. The question is not how conserve but how to control transformation in order to assure existence of the actual historical urban fabric as much as possible addressing modern life requirements.

Among the three-darbar squares, Patan Darbar Square is considered the most beautiful and impressive. Though the monuments are in better condition today the historic environment around the monuments is changing with demolition of historic structures and fabric. Construction of inappropriate structures has also degraded the historical environment. It is for this very reason, the changes and degradation of historical environment taking place within the WHS that the site has been put in the danger list. This proves that our past efforts to protect and conserve the WHS have been insufficient and inadequate thus we must explore for new approaches and means to rescue the property from the danger list. Conserving and managing the monuments has not been a big problem. The communities as such are aware that the monuments need to be preserved and protected. It is conservation and

management of the total monument environment (i.e. open spaces, surround area and the private buildings) that has proved to be difficult.

At present the concepts of Adaptive re-use of traditional buildings such as Rajbhandari House (the object selected for the study) have been very positively considered by the Sub-Metropolitan City Office.

The Preservation and Maintenance Plan for this chosen study object is prepared with reference to various initiatives undertaken by Lalitpur Sub-Metropolitan City Office and a number of research works done at various times to safe guard Patan City's cultural heritage.

The main research work referred in this paper is the research work "Kathmandu Valley World Heritage Site in the List in Danger: Patan Monument Zone: How to Stop Demolition of Traditional Buildings in Patan"

### **3. Description of the Study Object**



Rajbhandari House, Front Facade

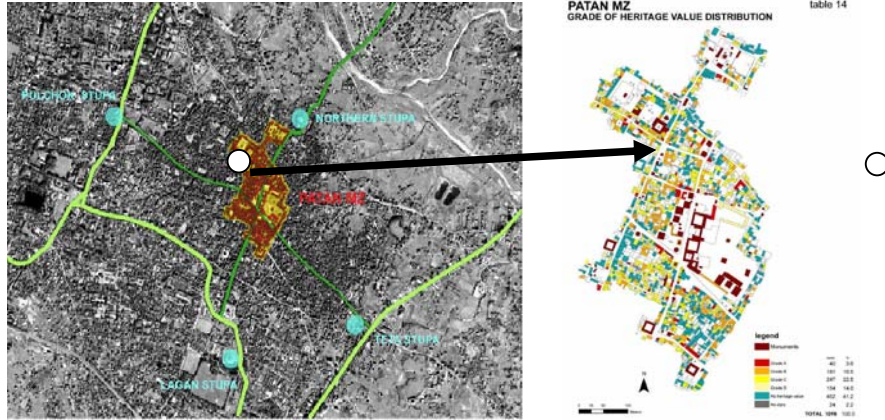
The study object, "Rajbhandari House" is one of the important projects implemented in Patan City to safe guard the cultural heritage through conservation of traditional historical private houses. The house is popular in an adaptive re-use perspective. It was initially a project on conversion of traditional house into quality tourist accommodation, but later the additional functions were added to it.

The project was implemented with the initiation of one of the house owners and was implemented by Patan Tourism Development Organisation with the support of UNESCO/WORLD HERITAGE

CENTRE and the National Federation of UNESCO ASSOCIATIONS in Japan. It was inaugurated by UNESCO Representative to Nepal on the 21<sup>st</sup> June 2006.

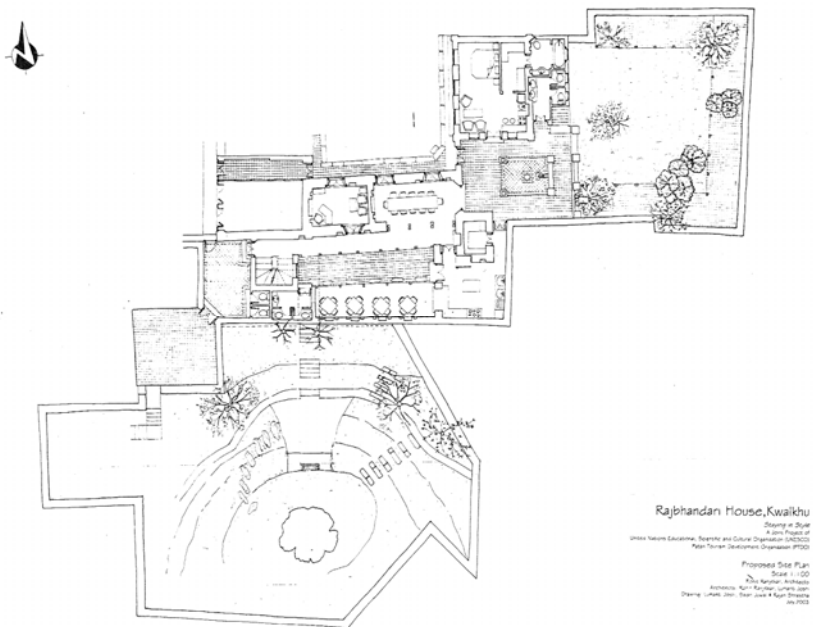
### 3.1 Location of the House

The study object is located at Kwalakhu, Ward No. 18 of Lalitpur Sub-Metropolitan City. The house is located within the Conservation Monument Zone of Lalitpur Sub-Metropolitan City. It is within a distance of one minute's walk from the World Heritage Site.



Location of the House

### 3.2 Drawings of Rajbhandari House



Site Plan of Rajbhandari House





building vertically with no thought to the structural or artistic implication. For this reason many important historical elements have been lost.

The owners of the house agreed that the extra space for staircase, lobby, and partition walls in each home means wasted space. So, the owners decided to preserve the house and not divide it among brothers, but it took sometime to come to consensus among them and to find the financial and technical support.

So, he thought of conserving the house by simply conserving. They consulted with Patan Tourism Development Organisation and Kathmandu Valley Preservation Trust. Their suggestion also inspired him. The Shrestha House is another important source of inspiration. Ultimately the project was implemented with the support from Patan Tourism Development Organisation, UNESCO/WORLD HERITAGE CENTRE and the National Federation of UNESCO ASSOCIATIONS in Japan.

### 3.4 Construction Period and Cost

The project conservation works started on the 1st of June 2004 and completed in May 2006 taking about 22 Months to complete. The total cost for building conservation was Nepalese Rupees 28 lacs (1\$ = Nepalese Rupees 70) The internal finishing for Restaurant and apartment was about Nepalese Rupees 22 lacs. In total Nepalese Rupees 50 lacs was spent.

### 3.5 Building Materials and facilities

The house is constructed in a Nepalese traditional style. The building materials are local brick, mud mortar, timber roofs with clay roof tiles, wooden doors and windows. The facilities are restaurant capacity of 140 persons, two apartments of traditional Newari style for long term renting. The long term guests for apartment are usually those deeply interested in learning Newari culture. There are about 350 visitors and guests per day



Entrance, Courtyard, Garden and the Collonaded Passage inside Rajbhandari House



The restaurant facility of the house on ground floor and first floor

### 3.6 The Physical Condition of the House

From outside the house is fine. The outer façade is quite fine. But there are a lots of repair works to be done in the house. There are water leakages from the roof, the roof tiles are broken, the dampness problem on the walls, the wild plants growing on walls and damages caused by termites in some of the timber members.



Boundary wall waiting for repair    Plants growing on the roof top



Plants growing on Walls

Dampness on walls



Water leakage from the roof

Damage of roof tiles

#### **4. Challenges for Sustainability and Municipal Initiatives**

The owner states that the business is only at break even point. The main sustainable way for running the business is depended upon the restaurant. The Apartment business is not sustainable. The guests nowadays go to modern housing apartments in modern housing project areas for accommodation. Enough spaces for car parking, sufficient drinking water supply, electricity, security guards, etc are not attractive and perfect in this traditional house. There are some disturbances of noise from the surrounding residential houses. It is costly to maintain old buildings and there are lack of expert masons. It is costly to repair a traditional house compared to RCC building.

In a situation where UNESCO has just removed the City from endangered list the Municipality and all the related line agencies have to be very careful about sustainability matters. The most important step will be to promote this type of adaptive re-use projects and increase the number of private house owners to go for this type of projects.

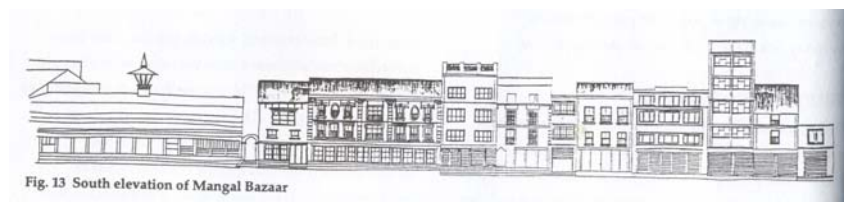
##### **4.1 Municipal Project Proposals for Conserving Private Houses**

Realizing the fact of the necessity of conserving the private historic buildings, the Municipality started to develop inventories of street scapes. One of such projects was the site just south of the Darbar Square consisting of 10 individual private buildings. Five of the buildings are still retaining its traditional character while remaining five has been replaced by modern buildings. Till now the situation is in a fairly good state except for the height of two modern buildings. But with the existing system and trend one cannot be sure that this condition will prevail. Quite possible tomorrow the existing five building could be replaced by inappropriate concrete buildings. It is clear, with the present approach and system; we will not be able to rescue the property from the danger list. Without any direct benefit to the house owners, preservation of private houses has no meaning to the house owners. Thus this pilot project has been proposed to get the first hand information and practical knowledge of the problems and difficulties regarding conservation of private residences. Thus the project will help develop new appropriate solutions, policies, practical guidelines as well as good technical and financial support mechanism. Most importantly, to develop a comprehensive and effective monitoring and control system to check the development taking place. Till now only DoA and the local bodies are well involved in conservation and we have not been able to get the involvement of other stake holders i.e. the house owner and the consultant working on

behalf of the owner. They are the main stake holders and without their involvement, the success of conservation will be very slim.



Street Elevation near the World Heritage Monument Zone



Inventory Drawing of the Street Elevation near the World Heritage Monument Zone

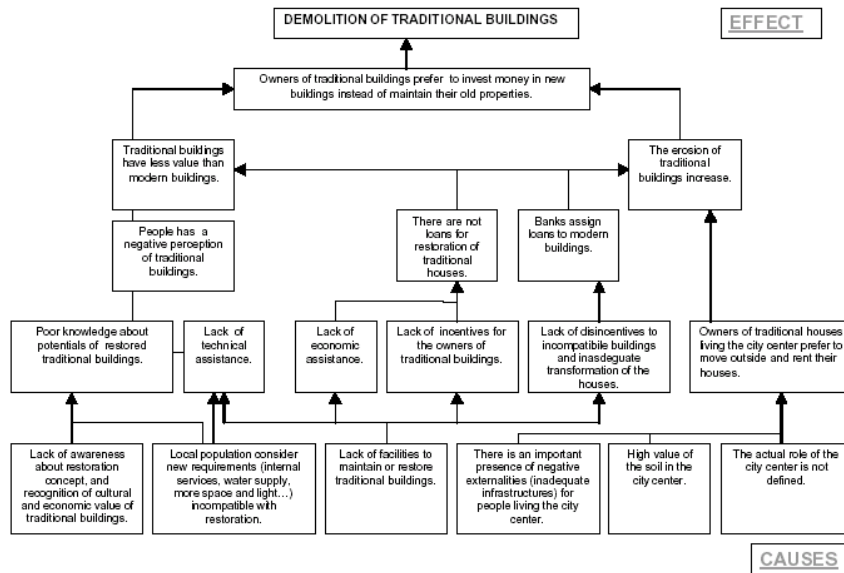
#### **4.2 Municipal Initiation on How to stop demolition of traditional buildings in Patan ?**

The Municipality is now deeply concerned about how to stop demolition of traditional buildings. The model developed by the research group on it is being very seriously considered by the municipality. As per the modality developed, the lack of awareness about restoration concept and recognition of cultural value of traditional building leads to poor knowledge about the matter and people have negative perspective of traditional buildings. In turn this leads to demolition of traditional houses. Now a days the Municipality is focussing the activities based on this modality.

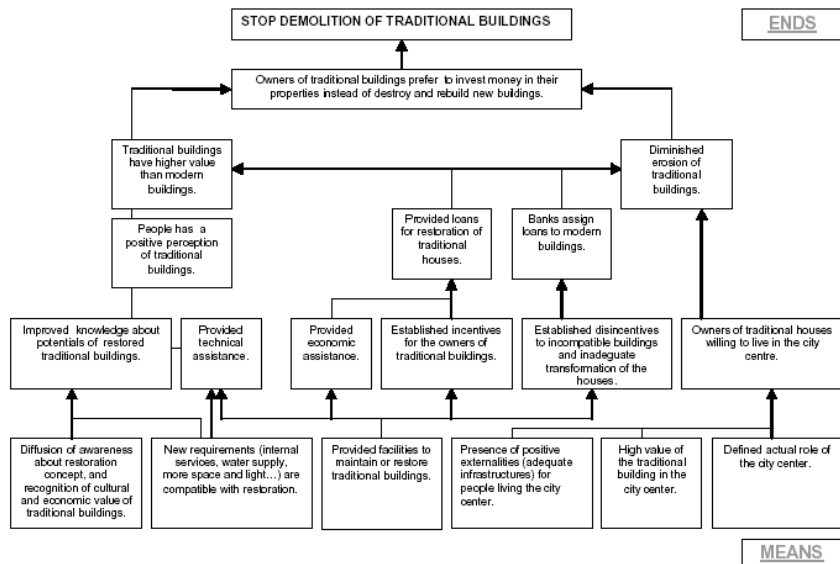
And it is also important to bear in mind the problem tree and the objective tree as worked out by the research work.

## How to stop demolition of traditional buildings in Patan ?

### PROBLEM TREE:



### OBJECTIVE TREE:



## 5. Preservation and Maintenance Plan

“A Stitch In Time Saves Nine.” Bearing this fact in mind the Rajbhandari House has to be repaired in time. It is high time for the house to be repaired. The water leakages from the roof have to be stopped with minor repair works. The broken roof tiles have to be replaced. The dampness problems on the walls and the wild plants growing on walls have to be cured in time. The damages caused by termites in some of the timber members have to be identified and treated with chemicals or replaced by new timber embers.

In fact there does not have to be a detailed preservation and maintenance plan at the moment as the damages are at very initial stage. Some minor repairs are enough now. But the fact of the necessity of timely repair works should not be overlooked.

## Maintenance works Needed

Problem/building element	Maintenance	frequency	Responsibility
Water leakage from the roof	Clean/scrub the roof, terrace area and repair the cracks and joints which caused the leakage	Yearly, before the rainy season	The house owner
Dampness problem on the walls	Wash away the salt content/damp proofing	Yearly before the rainy season	The house owner
The algae/plants growing on the walls and roofs	Remove the plants and apply chemicals needed	Six Monthly	The house owner
Termites affected timber	Apply chemicals/insecticides	Yearly	The house owner

Another important aspect would be to support the project through every possible way by the municipality as well. The technical support can be one of the options. It may be even in the form of supporting the project by conducting any possible programmes in the Rajbhandari House so that it can help for the income generation from the project.

### Conclusion

If initiatives to safe guard the traditional housing stock are not undertaken in time, Patan's conservation scenario for the coming years will not be positive. As some research works had shown that if the actual trend of traditional houses' demolition will continue, total disappearing will be expected in the year 2025 and with them an important opportunity for development. Patan, one of the seven monument zones nominated World Heritage in 1979 in the Kathmandu Valley, was once declared in the UNESCO List in Danger due to architectural erosion of residential houses. But due to some of the important initiatives undertaken jointly by Lalitpur Sub-Metropolitan City Office and Department of Archaeology, Patan has recently in 2007 been removed from the UNESCO's World Heritage endangered list. The heritage conservation fund established jointly by Lalitpur Sub-Metropolitan City Office and Department of Archaeology has been very optimistically considered as the most important initiative to safe guard the private housing stock.

The major step from the Municipal side for preserving the nationally important project like Rajbhandari House is to activate the activities of heritage conservation fund. The minor repair works can be supported through this fund.

Another important role of the Municipality could be to implement programmes to encourage traditional house owners to go for this type of adaptive re-use approaches. Municipality can make the city dwellers aware of the fact that aside from turning the houses into income generation asset, re-using the building could ensure its maintenance and therefore, preserve it.

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