



1. EXECUTIVE SUMMARY

Nepal lost more than 8,000 lives in the devastating Gorkha Earthquake. Millions of people have been made homeless and are living in tents and other temporary shelters. Khokana, which is located south-west of Kathmandu, was among the hardest hit; about 80% of its buildings were destroyed by the earthquake. Khokana is a historical town and is a recognized heritage site of the Kathmandu Valley. The majority of its residents are farmers who have lost not only their homes, but also any hope of their lives returning to normal. To bring back hope to the community, the first essential task is to sweep away the destruction brought by the Earthquake and to create new space for regeneration. With this objective, a mission to demolish unsafe buildings and remove debris has been conceptualized by the community and the local authority. It is envisaged that once space has been cleared, new approaches to rebuilding a more resilient and sustainable Khokana will be possible.

We hope that Khokana will be a success story that will be told and replicated across Nepal.

2. BACKGROUND

The Gorkha Earthquake has claimed more than 8,000 lives and has destroyed or damaged eight hundred thousand houses, leaving approximately four million people homeless in 35 of the 75 districts of Nepal. The hardest hit areas are Gorkha and Sindupalchowk, where not only houses, but entire villages and towns have been destroyed. In the Kathmandu Valley, the earthquake partially damaged all seven UNESCO cultural heritage sites and old Newar cities and towns such as Bhaktapur, Siddhipur, Khokana, Bungamati, Panga, Sankhu, Taukhel etc were the worst affected, with 50-80% of homes destroyed or made unsafe for human habitation. In addition, 575 schools in 35 affected districts were completely destroyed.

The Gorkha Earthquake has left many scars in affected areas, mental as well as physical. As long as the physical evidence of the disaster remains, it will be hard to heal the mental scars. This situation necessitates the initiation of rebuilding efforts as soon as possible: either transitional or permanent, new homes and schools have to be built; new villages and hubs have to be built; new towns and even cities have to be built. Before regeneration can begin, the dangerous rubble and damaged buildings left by the earthquake have to be removed to clear the way for communities to rethink, redesign, and rebuild for a more resilient future.

It is our aspiration that this project in Khokana will serve as an exemplar to others working to regenerate communities across Nepal which have been affected by the earthquake.

3. INTRODUCING KHOKANA

Khokana, a medieval Newar settlement, is situated 6 km south-east of Lalitpur Sub-Metropolitan City. It has long been known as the centre of mustard oil pressing in the valley. Geographically Khokana town is situated on a plateau with both highland and lowland areas. Historically Khokana was an economic hub situated on one of the trade routes to the south (through the Bagmati River Gorge).



Rudrayani Temple. One of the popular temples of Khokana

Before the earthquake, Khokana appeared as a cluster of houses, closely packed together in the middle of lush fields. The town began with a very wide cobbled street, both sides of which were lined with houses made of exposed fair faced bricks and mud mortar. Khokana exhibited the typical aspects of a Newari settlement with village amenities. Similar to Kathmandu, Bhaktapur and Lalitpur cities, it had outstanding built and open spaces typical of traditional settlements of the Malla period. The large number of lavishly decorated brick houses with magnificently carved windows of typical Newar

craftsmanship, the street paving and urban spaces in the form of squares, courtyards and efficient water collection systems were signs of a prosperous past.

In addition, socio-cultural activities, festivals and traditions of the community were a few of the major attractions not only for domestic and international tourists, but also for historians and anthropologists. Its close relationship with agriculture, socio-cultural activities, built heritage and its urban form demonstrated the original character and cultural heritage of the valley.

In Khokana, the majority of the population regard agriculture as their primary occupation. Before the quake, oil pressing, spinning, knitting straw mats, cotton cloth and woolen carpets were their subsidiary activities. Khokana was an industrial-service town of Kathmandu Valley and was famous for its mustard oil production. It served the whole valley and beyond with its rich mustard oil. In addition, the village was in the process of becoming a UNESCO World Heritage Site.

4. PROBLEM ANALYSIS

The Gorkha Earthquake and the two large aftershocks that followed have devastated Khokana and its rich heritage. The town was turned to rubble: 812 houses have been completely destroyed and 355 houses are partially damaged. In total, approximately 80% of the houses in the town are no longer fit for human habitation. It was fortunate indeed many people were on their farms when the earthquake hit, resulting in lower fatalities than might have otherwise been expected.



People have been moved into temporary shelters, living behind their ruined and unsafe houses which are being used to store food and animals. The onset of the monsoon had made living and storing resources even more difficult. The “dunes” of collapse houses have also blocked thoroughfares, making the movement of people through the town and to other villages extremely hazardous and have forced people to live in and around dangerous areas at high risk to their health and lives.

The community and local government have been doing their best to clear debris and help people, but the magnitude of damage is so large that the local government and community alone are not able to cope.

5. NEED ANALYSIS

There is an immediate need to demolish unsafe buildings and manage the debris generated in a proper manner. The majority of the damaged houses belong to members of the subsistence farming community who do not have the money to tackle the problem on an individual basis, however, if approached collectively, there would be economies of scale and it would be possible to clear the buildings and debris with fewer resources.

New plans for rebuilding and community regeneration will only be possible when collapsed structures and debris have been cleared and ample open space has been created. Once this has been achieved, the town can be redesigned



and rebuilt, its community heritage and values reestablished, and the community's way of life restored.

6. OBJECTIVE OF THE PROJECT:

The specific objective of this project is to demolish buildings damaged by the earthquake and remove associated rubble and debris to allow regeneration of the community to begin.

7. PROCESS AND WORK FLOW

Formation of local committee

A committee comprising members from the local authority, local organizations, traditional / religious organizations, local peoples, and local political leaders will be formed to generate a consensus on demolition and debris management. The committee is responsible for keeping the community informed about the project and to deal with any local issues and problems when they arise. Its main duty is to implement the project. A local committee has already been formed in Khokana.

Form a local volunteer group and mobilize them

The committee will form a local volunteer group comprising young men and women for supporting in demolition and debris management activities.

Formation of steering committee

A steering committee will be formed comprising representatives from the local committee, representatives from ECCA, other financial partners if any, and the service provider.

Hire service provider

A competitive service provider will be contracted for demolition and debris management purposes. An experienced project manager (engineer) will also be recruited to manage the project on a day-to-day basis and report to the steering committee.

Demolish damaged houses and remove debris

The service provider will demolish damaged structures and remove debris. The volunteer group will help with the segregation of reusable materials, clearance and management of debris. Health and safety measures will be taken to protect volunteers and workers as per the health and safety plan.

8. TENTATIVE BUDGET AND FUND REQUIREMENT

Particular	Rate (USD)	Quantity	Amount (USD)
Operational cost			
Rental Cost of demolition and debris clearance per house	130.00 per house	1100 houses	143,000.00
Transportation	30.00 per day	52 days	1,560.00
Project Management: Project officer	600.00 per month	12 months	7,200.00
Total (A)			151,760.00
Project monitoring by Social welfare Council (SWC), GoN	1% of the Operational cost (Estimated)		1,518.00
Administration cost	5% of the Operational cost		7,588.00
Total (B)			9,106.00
Grand Total (A+B)			160,866.00

9. DONATIONS

ECCA is open to all individuals and organizations that are willing to contribute to this project. Please contact one of the following addresses for further information and details of how to make a donation.

REBILD Program-rebuild@ecca.org.np

Ram Maharjan: rmaharjan2013@gmail.com

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10. PICTURE GALLERY

