The Shree Bachchhala Devi Higher Secondary School

Rebuilding Project

Participatory Rural Appraisal (PRA) Report and School Rebuilding Project Proposal

Satyadevi, Dhading

July 2015

Shed the Light PeaceMakers

Shed The Light Nepal

Kathmandu, Nepal

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Introduction

The Shed the Light PeaceMakers operates as a non-profit social organisation and has as one of its prime objectives: to provide support to disadvantaged people from different parts of Nepal e.g. those who live in poverty, are affected by natural disasters or civil unrest, are disabled, single women or those with social, economic, cultural or psychological problems. Since the destructive earthquake on 25 April 2015 the PeaceMakers have been actively involved in earthquake rescue, relief and reconstruction.

As of 15 July 2015 the Nepal Government records show the impacts of the earthquake and its over 329 aftershocks that occurred with different epicentres and magnitudes equal to or above 4 M_w(out of which 47 aftershocks are equal to or above 5 M_w) and more than 20,000 aftershocks less than 4 M_w caused destructions as follows: 8,897 deaths, 22,309 injured, 602,257 fully destroyed public houses, 285,099 partially destroyed public houses (this figure is anticipated to increase considerably), and more than 8 million lives affected so far, as per UN estimates. Since that time citizens, private organizations, NGO/ INGO and government have been working towards rescue and relief operations in affected areas. The relief operation is still continuing but now the emphasis has shifted towards rehabilitation and rebuilding. A crucial part of rebuilding is focussed schools as many schools were either completely destroyed or rendered unsafe and unusable structural faults. As a result many schools are not able to function properly and are using temporary classrooms that present problems in the monsoon season.

During this challenging period for Nepal, the PeaceMakers have dedicated their time to rebuild Nepal. Since the first earthquake the PeaceMakers have carried out many projects working alongside or in collaboration with organisations such as Unicef, Nepal Scouts and Rotary. Examples of activities and projects are as follows:

1. Workshops on first aid training, psychological first aid, first aid and earthquake disaster inspection, building the cottage using bamboo.
2. Building temporary shelters in Kathmandu.
3. Relief goods distribution & medical camp in Dhading
4. Relief goods distribution & medical camp In Nuwakot
5. Building temporary shelters and distributing relief goods in Rasuwa
6. Building temporary shelters in Nagarkot

The PeaceMakers have now committed to rebuilding schools in the worst earthquake affected areas. The first of these is Shree Bachchhala Devi Higher Secondary School inSatyadevi, Dhading.

A successful businessman, Rana Bahadur Tamang, who has worked with different agencies and individuals for community benefit, has also been helping in earthquake relief. A friend of his, Mangale, who has been residing in Australia, agreed to help in rebuilding a school in Satyadevi where both men gained their SLC. They approached Shed the Light PeaceMakers and after discussion jointly agreed to rebuild the school Shree Bachchhala Devi Higher Secondary School.

Background

Satyadevi, Dhading

Dhading district is a part of Bagmati Zone. Dhading covers an area of 1,926 square kilometres (744 square miles), had a population of 336,167 according to 2011 census. DhadingBesi is the district headquarters.

Dhading is the only district of Nepal, which ranges from the mountain Ganesh Himal to the Churevawar Pradesh of Terai (Chitwan). The mountain range “Ganesh” is the predominate mountain range located within Dhading. Beside Ganesh Himal, Manaslu Mountain is clearly visible although it is located within the bounds of Gorkha.

Fig 1: Map of Nepal

Dhading is a very rich district in terms of nature and culture and it is easy to fall in love with its beauty. Agriculture and livestock farming forms the main occupation.Some other minor occupations include tailoring and other small businesses. Unfortunately most young adults go out of the district for work or study to either Kathmandu or abroad to countries such as India, Korea, Saudi, Malaysia, United States and Australia. This exodus of young people from agriculture has resulted in older people having to do all the farming work and also, as they age they lose the cultural tradition of young people looking after them.

There are two roads that leading to Dhading District, one is via Rasuwa District and the other via King Prithivi Highway,which connects Kathmandu and Pokharaand runs through the southern portion of the district.

Because of a landslide that has blocked the road, it takes seven hours by vehicle from Kathmandu to Khimtang and a further 3 and a half hours walkingto reach Satyadevi.

Satyadevi is a Tamang community with only two households of Newars and few of Brahmins. It has nineWards. Satyadevi is rich in natural resources like medical herbs and has a very fertile soil hence most of the people's occupation is agricultural farming.

There is a health post with limited facilities and only one health assistant. This health post was damaged during the earthquake. Most necessary medicines are free including iron tablets for the pregnant women.

Fig 2: 15 Districts with High Fatalities

The earthquake that occurred on 25th April 2015 caused considerable destruction in Dhading in general, and in Satyadevi in particular. There were 42 death and more than 100 people injured in Satyadevi. Most houses, schools and temples were destroyed; only one house was still standing. There were seven schools in the community and all of them were red marked to indicate they were unsafe for use.

Most of the houses now have been rebuilt through the help of community people. In the case of two-story houses where the upper floor was destroyed they have been made into one-story houses by removing the upper level. Families whose houses were destroyed completely have made temporary houses in their fields by using wood and roofsheeting that were either donated or salvaged from damaged houses.

Shree Bachchhala Devi Higher Secondary School

Shree Bachchhala Devi Higher Secondary School is the only school, which provides higher education. Other schools provide education till primary level i.e. till class 5 only.

Shree Bachchhala Devi Higher Secondary School was established in B.S 2032 as a primary school. This was when Dhadingwas within Rasuwa District boundary. The classes available at that time were from class 1 to 7. But in B.S. 2041 when Dhading became a separate District it was recognized as a secondary school and by B.S 2044 the school produced a new batch of S.L.C students. Slowly by B. S 2065 the school also produced a new batch of +2 students as well. Though the students do not have as many choices for their +2 studies as students in Kathmandu or Pokhara, they do have the choice of Management and Arts.

As of B.S 2072 (A.D 2015) the school has 677 students - 376 girls and 330 boys from class 1 to 10 and the students of +2. Students come from all nine VDCs in Satyadevi. This year the number of students who are going for their SLC exams is around 90.

In Satyadevi VDC parents prefer to send their children to school as early as at the age of 4/5 as part of their Early Childhood Development Education.
The school has being providing different scholarship to its students. Some of the scholarships are as follows:

- Girls of classes from 1 to 8 have been provided with full scholarship with Rs. 400/- amount yearly as well to the boys and girls of Dalit cast.
- Dalit boys and girls from classes 9 and 10 have been provided with full scholarship with Rs. 500/- amount yearly.
- MadhyamikGaribTathaJehendar Scholarship has been provided to 20 selected students of classes 1- 10 with Rs. 1,600 per year. The selection criteria are the 1st, 2nd, 3rd students of each class.
- MadhyamikGaribTathaJehendar Scholarship hasbeen provided to one selected student of +2 students with Rs. 5,000 – 7,000/- yearly depending on the amount that will be sent from Department of Education Nepal.

School books for the students from class 1 to 10 are free to all students, whereas only the girls of +2 students are issued with free books.

*Note: MadhyamikGaribTathaJehendar- Secondary Poor and Intelligent (Translation)

As stated earlier, after the earthquake, all classrooms and offices in the school have been made unsafe and therefore not usable.A temporary learning centre has been made by community members with materials such as tarpaulins and roof sheeting donated by some agencies.

This school rebuilding project proposal is a small attempt to bring the lives of people inSatyadeviback to normal following the destruction and disturbances due to the earthquakes that occurred on 25th April 2015 and on 12th May 2015. We hope with this

proposal at least the children lives will come back to normal and they can attend their classes as normally as before.

Project Goal and Objectives

Goal:

To rebuild the school with the introduction of new technology and community's participation.

Objectives

- To analyze the building for rebuild.
- To rebuild the school with new technology.
- To encourage Community's participation for development of community.
- To restore the studying environment of the students in strong building.

PRA Field Visit and Findings

In order to scope this project and develop this project proposal a field visit was undertaken during which three formal workshops / focus group meetings were held with various interested groups. Informal meetings and discussions with members of the community and others contributed meaningfully to the proposal. The field visit occurred from 10th July 2015- 12th July 2015.

During this field visit the meetings were facilitated by members of Shed the Light PeaceMakers. Attendees at the meetings included PeaceMakers, Mr Rana Bahadur Tamang, Mr Bala Ram Rizal, Parents and Teachers Association, school administration staff, Teacher Education Association, Ball Club, other school staff, community members and political representatives.

Details of meeting that were conducted are as follows:

1st Meeting (10th July 2015- Morning)

Objective:

- To discuss the main objectives of the project and the field visit.
- To introduce Mr. RanaBahadurTamang to the PeaceMakers and vice versa.
- To collectively make a list of things to do.
- To decide who would be doing what.

Outcomes:

- Useful information about the community was collected from Mr. RanaBahadurTamang.

- The difficulties that may occur during working with community were discussed.
- A list of actions and activities to do during our field visit were decided and discussed.

Details:

It was the first time for Mr. Rana Bahadur Tamang and PeaceMakers team to meet formally. PeaceMakers introduced themselves to Mr. Rana Bahadur Tamang and a good rapport was built. PeaceMakershad a chance to collect some information about the community and share their experiences of working with communities in other projects. It was mentioned that in any project it is hard to build the rapport in the beginning and have community members understand the objectives of the project's work in their community. So, one of the main objective of this field visit would be to build good rapport with the community. It was also discussed that a meeting will be conducted with the school staff and community where the possible building types would be outlined and the group would be given the opportunity to choose the best one for them.

2nd Meeting (10th July 2015- Evening)

Objective:

- To introduce PeaceMakers to Mr. Bala Ram Rizal, vice principal of Shree Bachchhala Devi Higher Secondary School and vice versa.
- To come up with agreement of allocation of works to concerned persons.
- To request for two children for photo documentation and case study.

Outcomes:

- Some information was collected about the school and a visit to the school was arranged.
- PeaceMakersand Mr. Bala Ram Rizal were introduced and he was requested for two children from school for the case study.
- Agreement was reached of allocation of works divided between the PeaceMakers team.

Detail:

It was first time for PeaceMakersandMr.Bala Ram Rizal to meet. He was introduced as a vice principal of Shree Bachchhala Devi Higher Secondary School. He gave a short introduction about himself and the school. The PeaceMakers requested for two students for case studies that come from low income families and whose family house was either destroyed or unsafe for habitation. The works for next day were also agreed and allocated within PeaceMakersas follows:

SarinShrestha- Supervisor
PreetiManandhar- Documentation
YogendraAdhikari- PRA
Buddha Mali- Photography/ Photo Documentation
SujanShrestha- Presentation/ Site Measurement and Building Analysis

3rd Meeting (11th July- In School)

Objective:

- To introduce PeaceMakers to the school and community.
- To make the school understand about Prefab housing.
- To introduce and give information about the project to the school and community.
- To provide an opportunity for members of the school and community to ask questions and provide feedback into the project.

Outcomes:

- Active participation of Parents Teachers Association, School Administration, Political Leader, Local people, Teacher Education Association and Bal Club was seen.
- Five choices of building types to rebuild the school were given. After discussion everyone agreed on Prefab.
- After discussion a rough sketch of school buildings was made and allocation of rooms was also discussed.

Detail:

Firstly the program started with Welcoming the PeaceMakers with khada(a traditional ceremonial scarf in Tibetan Buddhism) followed with introduction of PeaceMakers and then introduction of the people that were present in the meeting. The meeting discussion then shifted towards the presentation of new building technologies that are being introduced in Nepal.

Sujan Shrestha took the floor and started the presentation on Prefab. Prefab or prefabricated are buildings built in components (panels), modules or transportable sections, and may also be used to refer to mobile homes i.e houses on wheels. Prefab is eco- friendly, as offsite fabrication reduces wasted materials, as well as reducing waste energy in fabrication.

Building prefabricated school would be providing and fixing 50mm/ 75mm thick non asbestos Fiber reinforced aerated cement concrete (FRACC) Sandwich modules made out of light weight fiber reinforced aerated cement/ concrete core composed of Portland cement, fly ash, binders etc., and non-asbestosfiber cement boards on either side of the core, having a tongue and groove on longitudinal side of the modules. These Panel modules are erected/ installed using galvanized iron steel tracks including all necessary material required for erecting and fixing the wall panel complete as per direction of engineer- in- charge.

Advantages of Prefabricated Housing

1. Earthquake resistance.
2. Easily assembled and durable.
3. Easy Workability- no special tools required.
4. Groove joining system allows faster construction.
5. Strong and Durable.
6. Sound insulation and heat insulation.

After the introduction of new technology to the community people, PRA members outlined and discussed down the possible ways to build the school. The options that came up during the discussion were as follows:

1. Concrete (25- 30 year lifespan)
2. Wooded (8- 10 years lifespan)
3. Bamboo (1- 2 year lifespan)
4. Blocked (temporary only)
5. Prefabs (20 years lifespan)

A long discussion was held on which one would be the best option to rebuild the school. People preferred either cemented or prefabs. In further discussion everybody agreed on prefabs. They chose prefab realising that although cemented had a long lifespan they were not safe during earthquakes as they had just found in the recent earthquakes. In the presentation it was shown that prefabs would be safer during earthquakes and their lifespan was almost as long as cemented buildings. Everybody agreed to go with the new prefab technology as the old technology was not as durable as people have expected during earthquakes. Their reason to choose prefab was they have tried the old method and saw them failing and now they want to give a try to a new technology. Their saying was "Puranojamanagayo aba palo cha nayaprabidhiko". (old generation has passed and it is time for new technology)

After the selection of building method the discussion shifted toward which rooms to be included in the planning of the school and how it should be planned. It was decide the following rooms would be included:

1. Classrooms (12)
2. Toilets (3)
3. Experiment Lab (1)
4. Computer Lab (1)
5. Library (1)
6. Office Rooms (3)
7. Teachers' Quarter (1)- Optional

Fig 3: Tentative School Planning

Towards the end of the meeting the floor was given to Mr. Rana Bahadur Tamang to share some of his experiences and how he came up with the idea of Prefab and how he came in contact with Shed The Light PeaceMakers.

Mr. Rana has been actively participating in helping the community. He has been donating tents and trying to connect with his friends who recently residing in abroad for any kind of help that would be possible to help the community. He came in contact with Mangale one of his relative/ friend and a person who is willing to help. Through Mangale,Mr. Rana came in contact with Shed The Light PeaceMakers. Together this project came as an idea and started to take shape through field visits and the reports.

He also shared his experiences of living in a prefabricated house while he was working in Korea. He explained that in foreign countries most of the houses in industrial areas are prefabricated houses as they are strong and even though it get destroyed, as for the

materials used is light compared to cemented it won't do the damage as much as concrete or wooden buildings would do. The advantage is when the building falls down; it falls down in pieces as they were assembled.

Proposed Project Activities

1. Demolish the half destroyed school buildings.
2. Give training to the community people on how prefab housing is done.
3. Clean the school area and remove all demolition material.
4. Rebuild the building with new prefab technology.

1. Demolish the half destroyed school building

During the field visit it was observed that the surroundings of the school have been cleaned but the buildings itself has not been destroyed yet. The existing school buildings need to be demolished before the construction work starts. The project plans to remove the buildings with the help of community members.

2. Give training to the community people on how prefab housing is done

At least one day training will be given to the community people (both men and women) to make them understand what really a prefab building is and to make them participate in the project. The project also focuses on Community's participation to develop the community. The advantage of this would be that the community will be self dependent and they would be proud that they have built the school by themselves.

3. Rebuild the building with new technology

After the planning is finalized and the materials arrive atSatyadevi, the PeaceMakers plan to enlist the support of a group of engineers to assemble the materials under the supervision and instruction of our PeaceMaker engineer Mr.SujanShrestha. For assembling a volunteered help form community people would be appreciative and welcomed as one day training is already provided. During the field visit it was observed that there are more women than men in the community so, women's participation is expected.

4. **Clean the school area**

"Clean up after you"; after all these work cleaning the school area will be conducted. A general cleaning of areas that got filthy during construction will be done.

Key Staff

SarinShrestha- Supervisor
PreetiManandhar- Documentation
YogendraAdhikari- PRA
Buddha Mali- Photography/ Photo Documentation
SujanShrestha- Presentation/ Site Measurement and Building Analysis

Case Studies of two Children

Two children, a girl named NirjalaGhale and a boy named SudipShresthawere chosen for case studies which reflect the normal day to day routine of children of Satyadevi. The case studies are attached below:

CASE STUDY ONE

General Information:

Name: NirjalaGhale

Age: 13 yrs old

Gender: Female

Class: 8

School: Shree Bachchhala Devi Higher Secondary School

Family Composition:

Name	Age	Education	Relationship	Occupation
PremBahadurGhale	80 yrs	Illiterate	Grandfather	Agriculture
RhasawatiGhale	78 yrs	Illiterate	Grandmother	Agriculture
BijayGhale	35 yrs	Literate	Father	Agriculture
JunishGhale	33 yrs	Literate	Mother	Business
SajanaWaiba	16 yrs	Class 10	Cousin	Student
GorimaGhale	9 yrs	Class 3	Sister	student

Family Background:
Nirjala is a first daughter of her parents Prem Bahadur Ghale and RhasawatiGhale. She has one younger sister. A girl cousin is staying with the family to allow her to continue her studies. This could not happen if she remained with her family. Nirjala's grandfather and grandmother are living with the family too. Grandmother is the head of the family as the grandfather has some mental problem. He has stopped talking to anybody in the house or in the community, doesn't take care of his hygiene, does toiletries on his bed, goes around village by himself and brings anything at home and throws it under the bed. His mental condition could be because of his old age. Medical attention has not been sought by his family members.

Daily Routine of Nirjala after Earthquake:
Everyday Nirjala's day starts at 5:30am. She wakes up at 5:30 am, gets ready for school and reaches school by 6:30 am. It takes half an hour for her to reach school from her home. She has two hours coaching class because of the earthquake. After classes she goes back to her house. As soon as she reaches home she helps her mother with her daily tasks.

The tasks she performs include: working in the kitchen, taking the domestic animals to the field, going to the tap to fetch the water, cleaning the house and the surrounding, looking after her sister and sometimes taking care of her grandparents too.

Besides helping her mother in household work she also tries to make time for her studies. Daily she manages to find two hours for her studies; doing assignments, preparing for next day's class etc.

NIRJALA'S PHOTO STORY

CASE STUDY TWO

General Information:

Name: SudipShrestha

Age: 13 yrs old

Gender: Male

Class: 8

School: Shree Bachchhala Devi Higher Secondary School

Family Composition:

Name	Age	Education	Relationship	Occupation
Krishna BahadurShrestha	71	Illiterate	Grandfather	-
SherBahadurShrestha	65	Illiterate	Grandfather	Agriculture
HariBahadurShrestha	40	Literate	Father	OFW
BhawaniShrestha	35	Literate	Stepmother	Housewife
SushmaShrestha	11	Literate	Stepmother	Student
SujanShrestha	9	Literate	Brother	Student
OmkarShrestha	7	Literate	Brother	student

Family Background:
Sudip is the eldest son of his parents. He has two grandfathers as one of his grandfather's brothers did not get married and is supporting the family financially. Sudip's grandmother was murdered by a thief, who was trying to snatch her ornaments. The murderer he was sentenced to jail for this crime.

Unfortunately, his mother also had a similar incident but nobody know what really happened. She was declared to have tried to attempt suicide but everybody doubts this and believes she was murdered by her own brother while she was trying to resolve a fight between her brothers.

Sudip's father has been going out of the country for work for many years but every time he comes back home, he comes empty handed. The father has not been contributing anything in terms of financial support to the family. Soon after his wife's death, he remarried a woman who already had two children.

Daily routine of Sudip after Earthquake
After the earthquake Sudip's house had some cracks in many places but they are still staying there. Sudip's day starts with waking up early in the morning and getting ready for his coaching classwhich starts at 6:30 am. The coaching classlasts two hours. After the coaching class he immediately goes back to his house to fetch water for household activities.

After fetching the water he goes to Mela where all the community people have been contributing time to make temporary shelters for all community people. He also has his lunch there. After working inMela he comes back home and tries to study and do the school assignments. Besides studying for next day and assignments he also looks after his younger brothers and the domestic animals they have in their home.

SUDIP'S PHOTO STORY

FIELD VISIT PHOTO STORIES

SATYADEVI DHADING

EARTHQUAKE DESTRUCTION - LANDSLIDE

DAMAGE IN SCHOOL BUILDINGS

FOCUS GROUP MEETINGS

SITE ASSESSMENT AND MEASUREMENTS