

## **Fondation Eagle – Final Report:**

### **Shree Bhotenamlang Secondary School, Bhotenamlang in Sindupalchowk, Nepal**

#### **EAGLE FONDATION REFERENCE 438-035**

## **1. Summary**

### **1.1 Overview**



This is an end of grant report on the work completed at Shree Bhotenamlang Secondary School, located in Bhotenamlang Village, as required by the Eagle Fondation *Contract of Acceptance* (signed November 2017) and follows an interim report which was submitted in March 2018.

The school building is not as yet completed, although all the work which was funded by the grant from Eagle Foundation has been. The team on the ground are now working to finish the remaining work, which is listed and described in this report. The work will continue until the end of April 2019 when we expect to finish the whole building project.

Upon completion of the whole project and the opening of the school, a further report with supporting pictures will be sent to Eagle Fondation as well as to all other donors who have contributed to this major re-construction project.

As outlined in the original funding proposal, the school's facilities were wholly affected by the April 2015 earthquake, which impeded the school's ability to operate. Mondo requested funds to undertake a major rebuild of the school as well as repair the damaged structures at the school. We are pleased to report that we have completed all the major structural work with the funding we requested, and thank the Trustees of the Eagle Fondation for their generosity and trust in Mondo/Help to use their grant with that of other funders to complete a major school build in this poor region of Nepal.

In our previous reports, we described the completed work up until March of 2018. This report documents the work, which has taken place from that point, up until mid-January 2019. We resumed the work soon after the roads disconnected by last year's monsoon were repaired, between May to October of 2018.

## 1.2 Partnership

We are particularly keen for the Trustees of the Eagle Foundation to recognise that their major grant helped 'leverage' further support from the British Foreign Schools Society (£25,000) and the other donors (see breakdown of the total budget below).

When completed, this will be the single largest project we will have handled and managed up to this point and has been developed in a real international partnership with both the local school committee, the local Municipality, donors from the UK, Australia, Switzerland and Nepal all contributing to the success of this school build.

One important development to inform project partners and which has led to add to the strength of this project is that we have gained an additional partnership with Australian based NGO Health-Habitat, who agreed to pay for and construct two high-quality toilet building blocks. The design was agreed and the building work started in the mid-November 2018 and have made a significant progress. Funds for this work have been channeled from Australia to Mondo and then onto HELP using the carefully controlled authorisation and reporting procedures. A separate report on this element of the project is available on request

### FUNDERS

1. Eagle Fondation: £60,925
2. AWASA\*: £61,000
3. British Foreign Schools Society (BFSS) £25,000
4. Teach for Nepal: £25,000
5. Health Habitat: £15,700
6. Local Fundraising: Rs. 13,00,000 equivalent to £9,500.
7. Local Government (Paanchpokhari Municipality) Contribution: Rs.500,000 equivalent to £3,500.

*\*AWASA is the name of the apprenticeship programme of Leonardo company in the UK.*

**Total: £200,625**, of which Local Fundraising and Local Government grant were paid directly to the School's account.

## 1.3 Overall aims of the project

The original purpose of our proposal was to rebuild and restore the classrooms and facilities damaged by the earthquake. Our aim was to build 12 classrooms in an earthquake resistant manner and repair 4 rooms to enable the school to run up to 10<sup>th</sup> grade. However, the additional funding has positioned us to deliver much more than the proposal, thanks to the support we have had from other donors as listed above. We will also be coordinating to build enough toilet blocks for the building plus providing a proper fencing and playground for the school. Each classroom will be furnished with desks and benches and whiteboards. In order to improve the quality of education, we will work closely with teachers (mainly in agreement with TFN fellows) in advancing number of in-school activities such as quiz, sports and arts plus developing a workshop for teachers to share and reflect on their teaching practices. We have also paid for the salaries of one teacher for 2 years as part of the funding agreement from Eagle (see later).

The school will now have the capacity to provide both primary and secondary education giving at least 1600 children over 25 years the opportunity to learn, to reach their potential and have career choices. The building will benefit near about 650 students starting April 2019 when the new classrooms will be fully operational.

We are also pleased to share that our work has leveraged further support locally for the school. The District Education Office has funded six additional classroom building and the local Rural Municipality Office allocated a sum of Rs. 500,000 to fund the retaining wall at the edge of a playground, which was originally unstable.



## 2. Implementation

As with other Mondo/Help building projects the local villagers have been actively involved in working on this project (see photos). They have learnt valuable building skills including masonry and carpentry and their contribution in terms of 'sweat equity' means that this school is 'theirs' and parental engagement will be high certainly in the first few years of the schools operation (something the school can build on).

Around 20-25 local people have worked on the construction site on a daily basis, led by a dedicated site supervisor (Mr. Punkaj Mandal). The workforces are mainly locals who are trained masons and worked on the previous building. It also features at least six village masons who were trained at the masonry-training programme we conducted in late 2015. Consistent with our general approach, this has ensured further participation of the local community in reconstruction efforts. In addition, we are also employing an additional workforce from Kathmandu for efficiency reasons.

Photos below show local people involved in building the school including "laying the slabs" for second floor construction which needs to be completed in one go, on one day and brings the community together to complete *their* school







A senior engineer from the consultant firm we are using called EntraESpace, District Education Office and the local municipality office constantly monitored the progress of the construction work. In particular, since the reinforced concrete structure is fairly technical, the Engineers specifically supervised the construction during all critical phases. We also have made arrangement for Engineers from the local Rural Municipality Office to visit the site once a week. Additionally, a senior structural Engineer from a UK based reputed firm Recruitment Management Solutions (RMS). Engineer Alastair Norris is seen in the picture on the left checking the work done against the approved design. To

continue the supervision of the remaining work, we have the architect, Sameer Bajracharya, who is continuing to oversee and guide the technicalities of the work.

We are schedule to complete the classroom building plus other facilities in entirety by April 2019 and from May onwards the children will be able to start to use the full facility of the building and the associated infrastructure.

### 3. Results to date and the remaining Work:

Over the course of the last months, we have seen the completion of most construction and structural elements. This section outlines the work, which has taken place over the past few months, the remaining tasks, and explains why each job is necessary for the building to function as a successful school.

#### 3.1 Upper section 12 classroom buildings



Figure 1: The 12 classroom block on the upper section of the site

The upper section consists of 12 classrooms of two buildings connected by an area of stairs. As you can see in figure 1, We have now finished the plastering of the exterior beams, bands and columns, as well as all interior walls of the building. The screeding and punning of all floors in the building, including the stairways, is complete. The next task of painting the plastered surfaces with double coat distemper has begun. As opposed to plastering the whole exterior wall, we left a portion as exposed brickwork. We still plan to paint the brickwork to protect from damage and improve the overall image of the building. The installation of all windows and doors will begin next week and once they are in place, they too will require painting.

Currently, the two buildings are not connected, an element crucial for the interaction between classrooms. The materials to build a connection bridge between the two buildings have been measured, the bridge has been designed and the foundations have been constructed. All that's left is to install the connection bridge into its place on the building. We have constructed a parapet wall spanning the full length of the upper floor (including the connecting bridge), and fixed a metal railing to this wall for the safety of the students.



Figure 2: The materials in place ready to construct the bridge spanning the rear of the building

In the exposed area where the roof panels meet, we will install transparent sheet. This is primarily for aesthetic reasons but it will also keep the building airtight. We will install a false ceiling within the classrooms on the upper floor. This is to regulate the temperature of the classrooms, and also reduces noise levels, particularly during the monsoon season. Between the false ceiling and metal roofing we plan to install a mesh netting, to block off birds and other wildlife from entering whilst still allowing airflow. The metal truss holding the roof sheets up need to be sprayed with a primer, this is essential to protect the metal from rusting.

All areas of the building require electric installation, including lighting. We have recruited a MONDO-HELP scholarship alumni named Deepak Shrestha, (also a former student of the school) to perform the electricity fitting work.

For the proper function of the building, particularly during monsoon season, we will install a metal drainage pipe below the roof at the front and back of the building. At the back of the building, the water will drain off the roof and be collected in a small pond on the ground floor (ideally), demonstrating to the children the process of water collection and harvesting. At the front of the building, the water will be directed off the roof and channeled into other areas of the school premises.

Lastly, the construction of steps with ramp at the back of the building will allow access for able and disabled students alike. Similarly to the connection bridge, the framework has been made and is ready to install at the back of the building.

### 3.2 Semi-covered 'Amphitheatre' between the two newly constructed buildings



When the buildings were first proposed, the area between the two buildings was to simply serve as a passageway through the school. However, upon second thought it was suggested that this area could be transformed into an additional learning space, maintaining the continuity of the two building, and providing transitional zone between the classrooms and outside areas.

**Figure 4:** Final design image for the 'amphitheatre' connecting the two blocks



We designed and have constructed a 'amphitheater' style stairway, which faces the playground area in front of the buildings – a space which can be utilized for outdoor cooperative learning and project work. The roof panels above the stairway will be semi-transparent to allow light to enter whilst protecting against the elements.

**Figure 5:** Current state of the stairway 'amphitheater'

All of the materials necessary to construct the metal truss and supported roofing, as well as a metal stair-railing are on site. The construction of these crucial elements has begun and is expected to complete in the next 10 days. Both structural Engineer, Bikash Shrestha and Architecture, Sameer Bajracharya will closely oversee and guide the installation of this part. It will be the first such facility provided to any building in the region.



**Figure 6:** Materials on site to begin constructing the metal roofing covering amphitheater



### 3.3 Landscaping Improvement



In front of the upper buildings, a 12 feet high retaining concrete wall measuring 350 feet in length all around the building has been built. This is to support portions of land, which would have been vulnerable to landslides during the monsoon season. This has been a major structural work that was not part of the original building plan. The additional funding has enabled this to be built and has given opportunity for the local municipality to also 'own' this project and contribute strategically.

**Figure 6:** The completed wall which was constructed to retain land vulnerable to landslides



Two feet away from the edge of the retaining wall, we will build a 2ft x 2ft wall along the whole length of the playground and all around the school premises, to support the fencing poles, and provide a seated area for the students. The total length of this will be 480 feet. As shown in figure 7 the stones for this wall have been positioned ready for construction.

**Figure 7:** The materials in place ready for the construction of a 2ft x 2ft wall with supported fencing

The fencing we will use will be framed fencing. To utilise an otherwise harsh and industrial looking surface, the metal fencing will be clad with educational posters and information boards. To do this, we will attach several plain sheets of metal. Our hope is to extend the positive learning environment demonstrated in the classrooms to the outdoor areas, keeping the children engaged in learning even when they are not in the classroom.

### 3.4 Rebuilding JICA buildings



**Figure 8:** JICA building fully plastered and ready for painting



As part of the building work we have managed to rebuild the 4 classrooms, designed using the JICA construction method, that were seriously damaged in the earthquake. The foundations of the buildings however, were intact and the truss materials were still usable. We have reinforced the metal structures that were already standing and made many improvements to the simple buildings with new walls and new CGI roof. We have now completed the rendering of the buildings, which included plastering parts of the exterior and interior walls. We have replaced, and in some sections added, transparent sheets under the roof to seal the building while still allowing light-flow. The sheets that were previously in place had aged significantly over time and no longer functioned in keeping the building airtight. Additionally, we added a metal sheet on both ends of the building. Notably, each of these minor alterations have significantly improved the sound levels within the classroom, particularly during monsoon season.

One of the two JICA buildings will remain fully open-plan to function as a meeting hall, whilst the other has been split into two separate rooms to serve as classrooms. The wall which splits these two classrooms has been built.



Figure 9: Showing the location and current progress of the two JICA buildings

The old metal roofing have been replaced by a new sheet of CGI metal. The 48 windows and doors in the building are currently being replaced by wooden framed windows and doors as opposed to the metal ones which are already installed. We will now start painting both the exterior and interior walls, as well as the false ceiling which has been installed, with a double coat distemper.

Field Visit Report for Site Supervision and Quality Assurance Services for the Construction of Bhotenamlang School, Bhotenamlang, Sindhupalchok.

**Construction of School Building  
Consultant's Field Visit Report**

Team Member: Bikash Wagle

Objective of the field visit:

- To undertake monitoring activities of construction quality of under-construction school building in Bhotenamlang, Sindhupalchok.
- To orient site engineers on different milestones of the construction
- mutually share real field-based problems with and from site engineers for school construction
- To inspect daily construction supervision activities undertaken by site engineer
- To jointly interact with HELP program officer and respective site engineer to identify and solve unresolved problems if any with regard to school construction

1. Key activities carried out based on the travel itinerary:

Date/ Day	Site visited	Persons/ Groups interacted with	Description of field visit Program/Activities
Day 1 01/02/2018	Shree Bhotenamlang Secondary School, Bhotenamlang, Sindhupalchok	Site Engineer and contractor head masons	<ul style="list-style-type: none"> <li>Travelled to Shree Bhotenamlang Secondary School, Bhotenamlang, from Kathmandu</li> <li>Inspected under construction School building sites</li> <li>Interacted with site Engineer about work progress</li> </ul>
Day 1 01/02/2018	Shree Keulathana Secondary School, Gufa, Sindhupalchok	School Teacher and masons	<ul style="list-style-type: none"> <li>Travelled to Shree Keulathana school, from Kathmandu</li> <li>Inspected constructed School building</li> </ul>

2. Major Observations:

During Site visit, we observed the following conditions:

Shree Bhotenamlang Secondary School:

- Casting of footing has been done in both blocks of the school
- In first block, formwork for lower tie beam is under process.
- All the reinforcements in the lower tie beam and columns are placed as per the designs.
- In second Block, excavation for lower tie beam trenches is under process
- Proper level has been marked for the tie beam position

Apart from this we found that sometime the workers were absent in site without prior notice and work was

Prepared and Submitted by Entospace Technical Consultant 1

All the building work has had to be completed to strict earthquake-resilient standards and has been inspected by cal government officials and passed. (See left and below)





### 3.5 Improvement of the Middle Portion.

Essential works to this section include ground levelling the main playground area, making it safe for play, and erecting a fence around the perimeter of the playground. We also plan to construct a stone-paved stairway with supporting metal railing to connect the middle level, to the lower ground level of the school.

The building which sits in the middle portion, originally funded by MondoFoundation before the earthquake, will receive basic refurbishment work. We plan to plaster sections of the building, which were damaged in the earthquake, as well as paint the whole building with the double coat distemper. This building is currently functioning as an admin/office area for the staff of the school.

### 3.6 Stairways and School Gates:



There will be three main entrances to the school, and we will install gates for each of these entrances. From the main school gate at the lowest level of the school up to the first level, we plan to construct a stone paved stairway with supporting metal railing. In addition, to allow access from the upper section of the plot through to the lower ground level, a similar stone paved stairway will be developed. This second set of stairs will be shared and used by the villagers as well as the school

children.

Now that the plastering work and retaining work has been completed, our main focus now will be to construct a stable stairway connecting the main entrance at the front of the school, to the back entrance. This will require significant landscaping to clear the rubble that currently serves as the stairway through the school.

**Figure 10:** Showing the condition of the stairway which currently runs through the school site.



### 3.7. Furniture and other resources:



The final stages of the project, once all structural work is complete, will be to fit each of the classrooms with a new set of desks and benches (wooden preferred) and a whiteboard. We'd like to install a mini-library in at least six of the classrooms (grade 5-10) and have already received some book donations to do so. One of the rooms will function as an ECD classroom and this will be fully equipped with the appropriate furniture and resources. Lastly, the school will also be provided with a computer lab and science lab.

In front of the twin buildings on the upper section, we plan to provide the facilities for a basketball court and a volleyball court.



## 4 TEACHER SUPPORT

In our original funding proposal to Eagle Foundation we wrote “*Bhotenamlang school has a shortage of teachers. For 625 students there are only 10 teachers of which 6 are funded by the government and four privately. We have been funding a primary to mid-level English teacher for years, so we wish to continue with this for coming two years. The cost of funding this additional teacher will come to £1500 a year and £3000 for two years*”

Through your support we have allocated £3,000 from this grant to support this teacher up until 2020.

The table below shows the 10 teachers which Mondo has supported over the last year including the three funded by Eagle Foundation (highlighted in yellow and the Bhotenamlang teacher post at the top).


School	Location	Area	Commitment
1 Shree Bhotenamlang Secondary School	Bhotenamlang	Panchpokhari	Until March 2020
2 Shree Satkanyamati Secondary School	Gunsa	Panchpokhari	Until March 2019
3 Shree Kumbheshwory Basic School	Gunsa	Panchpokhari	Until March 2019
4 Shree Naulingeshwory Basic School	Langarche	Panchpokhari	Until March 2019
5 Shree Saraswoti Basic School	Langarche	Panchpokhari	Until March 2020
6 Shree Taltuleshwory Basic School	Tahngpalkot	Panchpokhari	Until March 2019
7 Shree Bhotang Devi Secondary School	Bhotang	Panchpokhari	Until March 2019
8 Shree Chandika Secondary School	Baruwa	Panchpokhari	Until March 2019
9 Shree Panchakanya Basic School	Chamkhu	Melamchi	Until March 2020
10 Shree Kyaulethana Basic School	Gufa	Melamchi	Until March 2019

The teacher the Eagle Foundation has supported is Sandeep Ghorasaini and this summary below gives a short overview of the work he is doing in Bhotenamlang.

Prakash at the HELP office recently sent us a report on Sandip’s work and he writes

**5. Shree Bhotenamlang Secondary School, Bhotenamlang**  
**Sandeep Ghorasaini**

Sandeep was born in Phataksheela, Sindhupalchok as the first child of his parents. He spent his childhood in his own village. He graduated his grade 10 from Shree Jalpadevi Secondary School which is about an hour of walk from his home. He then completed his 12<sup>th</sup> grade from Banepa and B. Ed in Mathematics specialization from Kathmandu. Along with his present teaching job he is pursuing his Masters degree from Tribhuvan University, Kirtipur Kathmandu.



Sandeep has been teaching Mathematics for 6 years in different schools. He started teaching in Shree Bhotenamlang Secondary School in the end of 2016. Students' motivation and their success encourage him to work harder. Last year, one of the Kathmandu based institutes conducted a Rural Municipal Level mathematics assessment for 10 graders from 10 schools from that region in which more than 350 students appeared. His student was the topper and 6 were his student among top 10 students. He is very proud of that moment. He loves playing football, travelling and reading novels. He believes that only educated citizen can change and develop the nation. He finds himself as a Mathematics professor in 10 years time.

*“Sandeep is the in charge of secondary block, responsible of checking daily lesson plans of every teacher. Every teacher has to get their lesson plans checked by Sandip every morning before going to class. This practice gives a prove that every teacher has a written lesson plan before getting into class. Not only this he comes school early morning at 6 and takes extra class for grade 10 without extra charge. And he also helps preparing food for grade 10 as they are in day boarders nowadays.”*

**Fig 11)** This is taken from the Mondo Teacher profile document giving details of all 10 teachers Mondo supports in Nepal (available on request)

As part of the funding from the British Foreign School Society for this school, Mondo was asked to work with HELP to create a baseline for educational improvement. We did this and have reported on the first year's of educational progress. **This is included in appendix II**

We have just managed to secure funding from UK grant making trusts which will enable us to extend our teaching programme and both fund these 10 teachers up until the end of the academic year in **2021** as well as pay for a co-ordinator/trainer to visit these teachers and provide ongoing support and training. This postholder will be managed by HELP but we hope that the Teach for Nepal organisation will also be able to provide ongoing training and support and appoint a TFN fellow to continue to work with this school next year. Mondo is committed to ensuring that as part of the capital improvement that real progress is made in terms of quality education attainment.

Through the ongoing generosity of the Leonardo Company AWASA group 'School in a Bag' kits will be made available to all 600 students in the Bhotenamlang school. This is a further sign of Mondo and HELP's commitment not just to building but transforming the life chances and education of poor children in this remote area of Northern Nepal.



Photos from a recent school in a bag distribution.



## 5. Budget and Finance:

To construct 12 classrooms, repairing of four old classrooms, a nine-cubicle toilet block, fencing all around the school, school gates, maintenance of playground, water taps, equipping the classrooms with furniture, setting up computer, science lab and library classrooms and upgrading the nursery/kindergarten classes, we estimate the final cost will be Rs. 28.84 million or **£200,600.**

S.No	Headings	Total Estimated Cost in £.	Total spent so far in £.	To spend in £.	Remarks
1	12 Classrooms with (MONDO HELP Designed)	96000	90000	6000	Of the 12 rooms built, Eagle funded six of the classrooms.
	Installation of Amphitheater	4000	3000	1000	
2	Four room JICA Building restoration	22000	18000	4000	Mostly funded by Teach for Nepal.
3	Restoration of old building	2000	0	2000	
4	Toilet building and Drinking Water Supply	15700	9070	6630	This will be entirely paid by Health Habitat Funds.
5	Retaining Wall	7500	7500	0	The Local Government paid £3500 of this.
6	Compound wall and Fencing around the main school building premises.	8500	5000	3500	
7	Maintenance of the middle portion of the lower school including fencing.	3000	0	3000	
8	Stairways	2500	2000	500	
9	School gates	900	0	900	
10	Furniture	5000	0	5000	
11	ECD	2000	0	2000	
12	Computer Lab	1,500	0	1500	We plan to purchase 5 computers at the rate of £300.
13	Science Lab	1000	0	1000	
14	Library Upgrade	1000	0	1000	
15	Teacher support. - Salary for one teacher for 2 years	3,000	£1,500	£1,500	Funded by Eagle Fondation See appendix II for full details
16	Sports equipment (outdoor and indoor)	2000	0	2000	Budgeted for a basketball court, volleyball court, table tennis and children play equipment.
17	Engineering and supervision cost	5000	4000	1000	£1000 was spent on the design, £4000 for the 10 months of supervision.
18	Opening and handover costs	500	0	500	
19	Admin Cost UK	16000	15,000	1000	
20	Local Admin and Management Cost	1500	1,000	500	To cover the admin costs of School and HELP
-	<b>Total in Nrs.</b>	<b><u>200,600</u></b>	<b><u>154,570</u></b>	<b><u>46,030</u></b>	
-	<b>Total in Nrs. Average conversion rate (£1=Rs. 140)</b>	<b><u>28084000</u></b>	<b><u>21639800</u></b>	<b><u>6444200</u></b>	

## **CONCLUSION:**

In conclusion we wish to thank the Trustees of the Eagle Fondation for their generous support. Trustees and staff from Mondo in the UK have visited the school site whilst construction has been taking place during the last 2 years and we are confident to confirm the following which are stipulated in our agreement letter:

- The amount donated has been exclusively used for this project.
- The funds were held in the UK in a Mondo Restricted Fund account (CAF) and transferred in stages upon confirmation of progress made and monitoring of work completed.
- We have submitted an interim reports to the Fondation, as well as sent occasional updates during the year (including a report from when Simon Cowley and Nitish Upadhyaya Mondo Trustees when they visited the site in April 2018).
- The programme has grown in scope as other funders were able to support this project. However, the funds from Eagle have been used in accordance with the specific request namely towards six classrooms at £48,000, fencing and compound wall £5000 and the remaining will be spent on installing ECD and furniture and the teacher support.
- As mentioned earlier, your support has helped 'leverage' significant match funding from the UK and Nepal

Overall, this has been a very ambitious project; one that will address a complete school infrastructure and vital resources need for the school from classroom building to toilet to fencing to furnishing etc.

Once the school is complete and open we will send a further report and pictures.

Jimmy Lama and Stephen Carrick-Davies

31<sup>st</sup> January 2019

