

1. Summary

1.1 Overview



This is the final report for the work done after the earthquake at **Shree Satkanya Lower Secondary School** located in Gunsa Village. The school's facilities were wholly or partially destroyed by the April 2015 earthquake, which impeded the school's ability to operate. We requested funds to rebuild and repair the damaged structures at the school.

We had requested funds to build four new classrooms, and repair/retrofit four damaged classrooms and install desks and benches. However, as noted in our interim report, we had to make some changes due to combination of factors including government regulation, availability of land and budget constraints.

When we drew up our proposal in September 2015, the plan was to build four classrooms, even though the school needed eight. A few months after Eagle accepted the funding-proposal, we applied to another charity, BFSS, to work on the four additional rooms, which was accepted.

After we had secured the resources, we went back to the village for discussions and, due to limited land availability, we realised that we had to build the new classrooms in such a way that we left enough room for a playground which is also a government regulation and indeed given that Gunsa is now a secondary school and it would require a sizable playground, we returned with a suggestion to build a two storey school building instead. We took this request to the Department of Education to check the possibility of building eight classrooms in a two storey building. The authorities there understood the school's situation and suggested that they could approve our request for the two storey building so long as we followed their strict codes and regulations. However, when we checked all this against our budget, we realised that we could only fund the construction of six classrooms given the size of the new classrooms and the amount of materials needed.

As reported in the interim report, the construction work began in February 2016, having been delayed by the severe fuel crisis. We utilized this time by working on a detailed plan of new building designs and buildings to be retrofitted. It took us almost three months to process the approval for the designs. Over a hundred trucks were used to deliver the material through rough dirt-road as shown in the picture.



1.2 Overall aims of the project

Our aim was to build enough classrooms in an earthquake resistant manner to enable the school to run up to 10th grade, enabling children to return to proper classrooms as soon as possible.

1.3 Summary of results

We have completed construction of six new classrooms co-funded by another charity (British Foreign School Society {BFSS}). The eight old classroom block has also been fully retrofitted, yielding in fact a lower story arranged as three rooms and an upper story of 4 rooms. One of the larger rooms has been converted to ECD, which can fit in up to 60 children at a time. We reported last year that the

desks and benches supplied to the school in 2016 were in use but now both the new build and retrofit rooms are in use for teaching purposes. Not only that but one of the rooms has been fitted out as an Early Child Development (ECD) classroom and as well as painting the whole of the exterior some decorative art work has been added (see picture p1).

The completion of the buildings allowed us to hold the 3rd Himalayan Games at Gunsa in February, a 3 day event at which 27 schools participated in events for both junior and senior students. These games were a resounding success, motivating for children and teachers alike and our thanks go to Fondation Eagle who made this all possible.

2. Implementation



Local community's involvement has been central to all our school rebuilding work. This is mainly to promote and retain the sense of community ownership, which our experience informs us is key for long term development of the school and community in question. This, we believe, also helps promote community resiliency particularly in the context of earthquake devastation. In this spirit, right from the beginning, we involved Gunsa locals but of course with several of them having received training masonry training. About 15-20 locals worked on the construction site, led by a

site supervisor (the only female site supervisor in the region). In particular, the workforce featured six local villagers who were trained as masons through a training programme we conducted in late 2015. Consistent with our general approach, this ensured further participation of the local community in reconstruction efforts. In addition, we also employed an additional workforce from Kathmandu for efficiency reasons.

A positive development during the construction process was that the school managed to acquire new land adjacent to the school from a local villager.

A senior engineer, who is a trained architect, constantly monitored the progress of the construction work. In particular, since the reinforced concrete structure is fairly technical, he specifically supervised the construction of this during all critical phases. A Department of Education engineer who visited Gunsa with our Engineer during the foundation phase gave us positive feedback on our construction work. The government engineer has visited the site a number of times since and is very satisfied with the quality of work done.



As previously reported, the major challenge we faced as this project unfolded was the fuel crisis, which also affected several other projects we undertook. This prevented us from commencing work on the classrooms because it was very difficult to transport construction materials to the site. Furthermore, the delay meant that the project was not finished by the time of last year's monsoon and this also restricted the transportation of goods so added to the delay. The rains also affected our workforce who had to take care of their personal housing. However, we did manage to supply most of the materials necessary for building before the monsoon (130 trucks worth) which allowed work to recommence soon after.

Our highly dedicated team, comprising our in-country staff, plus an engineer and site supervisor, together with the school management committee, managed the construction process. Our CEO, Anthony Lurch, visited the site during in March and a Trustee, Nitish Upadhyaya, in June. Another trustee, Hirsh Cashdan, inspected the completed building a few days ago.

2.1 New buildings

As mentioned above the 6 classrooms new building block is complete and are in use. This started in April last year and the last piece of the work on the building was done until the 20th of February. The total cost for doing the six rooms was Rs. **58,97,600 or £43,205**. We have allocated three of the six classrooms to Eagle, and the other three to BFSS.



2.2 Retrofitting



We decided to fix the old school building made-up of seven rooms across two floors through retrofitting. We have allocated one of the floors to the Eagle funds, with BFSS funds covering the other floor.

As previously reported as part of retrofitting, we completed work to strengthen pillars and beams through a jacketing method by adding buttresses - an additional layer of reinforced concrete - over the existing column thus providing substantial additional strength. We removed the heavier upper floor slabs and replaced them with a lightweight truss. We replaced all the in-fill walls with new walls of sufficient thickness (at least 200mm thick compared to 100mm thick previously). We also tied the walls to the frame using steel bands giving the walls have added support in the event of a seismic shock. We have now also replaced the damaged staircase with a new one.

As with the new classrooms, our work has been reviewed by the Department of Education with whom our engineers have worked closely. The picture on the right shows retrofitting work being checked by a government Engineer.

The project was time consuming because the work was very complicated and involved high level technical input. We used a full time technical supervisor trained to do retrofitting, who did similar work at Nakote. For various reasons including materials shortage it was not until the last week of February 2017 before the work could be finally completed.



The retrofitting work of the old building has cost us Nrs. **2,824,915 or £21,730**.

2.3 Desks and benches:

All 30 sets of desks and benches were supplied in November 2015 and have been in use since then. The cost of the desks and benches was £900, with each set costing £30.

Actual vs Budget:

Total expenditures on six new classrooms and retrofitting work has amounted to **Rs. 87,22,515 or £64,935**. On top of this, we spent **£900** on Desks and Benches. As a result, and partly due to the weakened pound, we exceeded the Eagle funding (and also the BFSS). Thankfully we have managed to cope due to individuals/friends of Mondo Foundation who came to our rescue!

S.No	Items	Original Budget in £	Spent in £
1	Four classroom building (Adjusted to three rooms)	16,000	16,000
2	Four classroom retrofitting work	8,000	8,000
3	Desks and Benches	900	900
4	Overseers and Engineers	1,000	1,000
5	Admin	2,590	2,590
	Total	£28,490	£28,490

Once again, our grateful thanks for your support on what has been one of the most complex projects yet undertaken.

Anthony Lunch and Jimmy Lama

27 March 2017