

AUSTRALIAN HIMALAYAN FOUNDATION

“Building Nepal Back Better” AHF’s Earthquake Response 2016



Rebuild work at Garma Secondary School, Lower Solukhumbu

**LOWER SOLUKHUMBU
NEPAL**

EARTHQUAKE RESPONSE

Following the devastating earthquakes in Nepal in April and May 2015, the Australian Himalayan Foundation's Nepal Earthquake Appeal raised over a million dollars thanks to the generosity of our supporters, partners and the wider Australian community.

The AHF has been diligently working to ensure that these funds are managed in an accountable and cost-effective way with a focus on 'building Nepal back better'.

Of the 300-plus schools that the AHF supports through the Teacher Training & Quality Education (TTQE) program in the Lower Solukhumbu region of Nepal, more than 200 were assessed as being in urgent need of rebuilding or repair. We have been working hard to get children back to school by providing 19 temporary learning spaces for children while we plan the rebuild of earthquake resilient schools in the Everest region.



AHF funded temporary learning centre

The cumulative effect of the relationships and goodwill that AHF has built up over many years, both in Nepal and in Australia, has resulted in the rapid commitment of a number of Australian technical experts to help AHF and its partners with the challenges of 'building back better'.

With the pro bono assistance of Australian engineering and architectural firms, Taylor Thompson Whitting (TTW) and HASSELL, we have pioneered an innovative lightweight steel frame design for schools that incorporates contemporary seismic design principles.

These frames are light enough to be carried on the back of porters into remote areas, yet strong enough to withstand future earthquakes as well as monsoonal storms.

Another focus of the design is for it be “buildable”. The light gauge steel sections are made up into flat pack panels that each weigh about 10 kgs. This particular method of building in a flat pack module is certainly a first for Nepal. It means a very simple method for erection on site using steel screws installed with a screw gun. As a result, the construction time is significantly shorter than traditional techniques as there are less materials to assemble on site. The design also incorporates “green” building principles, with substantially more windows than traditional classrooms and insulation in the building.



One of the architectural rebuild designs by TTW/HASSELL

In addition, the Australian architectural firm Davenport Campbell has been working with AHF on a customised master-plan for Garma Secondary College. Garma Secondary College is a special school with hostel facilities that caters to children with disability and specialises in vocational training. It was one of the worst hit villages in the Solukhumbu with eight out of its nine classrooms destroyed. Davenport Campbell developed architectural plans for a low-cost environmentally sustainable, earthquake resilient school using best practice seismic principles and specifically catering for the needs of students with disabilities.



4 classrooms have now been completed at Garma Secondary College using the Davenport Campbell master plan school prototype

AHF, in partnership with REED, is working with School Construction Committees (SCCs) at each school, district authorities and other stakeholders in the lower Solukhumbu to take this rebuild program forward. Each school community receives a grant and technical support to rebuild their school under the supervision of a REED engineer and training is provided to construction committees on transparency, financial management and accountability. Communities contribute resources such as labour and raw materials to build ownership of the project and contribute to project sustainability.

In order to ensure efficiency and maximise knowledge sharing, the AHF is working in partnership with the Himalayan Trust NZ and the Himalayan Trust UK to rebuild and retrofit 22 schools through the Lower Solukhumbu Education Rebuild and Recovery project that has seen the three organisations pool both financial and human resources. The new buildings use seismic design principles and utilise locally available materials wherever possible. This project is an ambitious, long-term commitment to the people of this region that will see all three organisations working together to build safer, stronger schools in Nepal.

With AHF's track record in the region and strong relationships with local NGOs, communities and the Nepalese Government, the innovative plans we have designed were approved last year by the Nepalese Ministry for Education. It has been challenging work in the face of political instability in Nepal and the closure of the vital border crossing between Nepal and India which resulted in critical shortages of fuel and other supplies across the country. This instability delayed our rebuilding work, as well as the lengthy approval process of the design plans by the Ministry of Education, but with the

dedicated commitment of our in-country partners, REED, we are moving ahead.

As part of the repair and reconstruction work, the AHF has also focussed on the upskilling of members of the communities in which these schools are based recognising that there are high rates of youth unemployment. AHF has funded masonry skills training courses for over 60 local people from the Lower Solukhumbu region. This training was conducted onsite by experienced trainers and engineers from the National Society for Earthquake Technology (NSET). Working with REED, this training has helped to build a skilled labour force that will boost local capacity and economy and AHF has already employed 10 graduates from across these training groups to complete the retrofit of those schools identified by AHF for repair.



Local community members are trained on site in construction work at Garma Secondary School as part of our vocational training scholarship program

To date, construction of 34 classrooms in 8 schools have been completed and a further 18 schools are planned for 2016–2017.

Thank you to all our donor partners who made this possible.