Beyond the Book: improving science education in Nepal 2014/15, Six month progress report

Name of Organisation	Childreach International
Date of Award & Value	27th May 2014, £25,000
Today's Date	16th January 2015

Completed activities:

1) **Baseline survey conducted in all five project schools and four control schools.**
2) **Lab equipment/materials were purchased and all delivered** by the end of October. There was a slight delay in delivery due to the public holidays and celebrations taking place during Dashain and Tihar.
3) **Setting up of laboratories** – all lab equipment has been transferred safely to the project schools. Science labs have been set up in two of the schools and are in progress in the remaining three schools. The solar panels and rainwater harvesting systems will be installed in the coming quarter.
4) **Consultations with health, education and environment experts have taken place and the training module is almost completed**. We have also consulted some of the national bodies that have experience of providing national level teacher training in science; they are assisting in the development and delivery of the training module.
   Teacher training is due to take place by the end of February.

Outcomes/Benefits:

As yet, it is too early to be able to measure the impact of the project properly. However, the students and teachers at the participating schools are all very enthusiastic about the project and have shown great interest in the project as it has progressed – the delivery of the equipment and its introduction into classes has been a great source of curiosity and enthusiasm. Initial observations have shown more students attending science classes and paying attention as they are keen to use the equipment and try out some of the experiments.

Teachers are very happy with the students' increased motivation and are keen to make the most of the equipment. They are looking forward to the training modules and learning how to incorporate practical work into their classes, varying the way information is delivered to pupils.

Areas for improvement:

- Provision of some basic equipment/tools overlooked, when compiling the equipment list we focused on lab equipment which is the most crucial. The question of additional learning tools including visual aids such as charts, diagrams was not considered. We are talking to schools about this and will possibly include the provision of these items in the second year of the project if funds cannot be found from the schools' budgets.
- Basic first aid training on what to do in the case of chemical burns/spillages/other possible accidents was included but not highlighted in the teacher training module. Our implementing staff and teachers feel that it would be beneficial to emphasis this more and include basic first aid/lab safety training for pupils.

Upcoming activities:

- Conduction of a workshop involving science teachers, curriculum makers, training experts and consultants to build on the current science curriculum development that has already taken place.
- Conduction of science teachers training by experienced trainers to develop teachers' skills in conducting practical experiments, using various methods and media to promote students' interest in science, and providing them with the necessary knowledge and skills to maximise use of the labs.
- Monitoring and evaluation activities to measure the extent to which the labs are actually being used, how effectively teachers are managing to teach practical science, if school management is properly maintaining the labs, as well as the positive and negative outcomes experienced by teachers, students and the schools as a result of the labs being set up.
- Installation of solar panels and rainwater harvesting equipment
- Completion of the renovation of the classrooms being turned into laboratories.

Additional issues that need to be monitored:

- Concerns have been raised by teachers as to how they will include practical science classes in the timetable as they already have difficulty completing the teaching of theoretical classes. These concerns should be addressed by the teacher training that will be taking place in the next month. We must ensure that the teacher training emphasises ways of using practical science to teach theory – at the moment practical and theoretical science classes seem to be seen as completely separate, this training must highlight the ways in which the two reinforce each other and practical classes can be used to demonstrate the theory.
- We must ensure that we continue talks with local authorities to ensure that they take responsibility for the cost of replacing chemicals once used up and repairing/replacing equipment.
- Another aspect of the curriculum development that may need more focus and possibly additional funding is the availability of teaching aids such as CDs, diagrams, illustration books in both Nepali and the common local languages.