

Girls Get STEM Skills

The absence of women in Nepal's skilled workforce is marked, as girls typically drop out of secondary education in much higher rates than boys. By introducing girls aged 12-16 (when girls are most likely to begin lagging behind boys in math, science and computer skills) to an extra curricular program aimed at building confidence in foundational STEM (Science, Technology, Engineering and Math) skills such as computer literacy and scientific problem solving, the GGSS project will help address the lack of women in highly skilled STEM professions in Nepal.

CATEGORY

[Empowering Women and Girls](#)

LOCATION

[Nepal](#)

WHAT IS THE CHALLENGE OR NEED YOUR PROJECT WILL ADDRESS AND WHAT INNOVATIVE METHODS WILL YOU EMPLOY?

Describe the specific need or challenge that your team will address with this project

The absence of women in Nepal's skilled workforce is marked, as girls typically drop out of secondary education in much higher rates than boys. By introducing girls aged 12-16 (when girls are most likely to begin lagging behind boys in math, science and computer skills) to an extra curricular program aimed at building confidence in foundational STEM ([Science](#), [Technology](#), [Engineering and Math](#)) skills such as computer literacy and scientific problem solving, the GGSS project will help address the lack of women in highly skilled STEM professions in Nepal.

Briefly describe the specific solution or approach to address the need or challenge and explain why it is innovative

Our intervention creatively addresses the problem where it begins, in primary school at the point where girls first track away from studying STEM skills; research shows women's low representation in STEM careers is best addressed *before* women enter the labor force. The project is based on the idea of mobile classrooms that bring computers to girls in travelling computer labs. The beneficiaries will be young women without access to computers at home or schools – a common problem in Nepal. GGSS targets girls with the least access to skills that will increase their earning potential.

How will the project impact your community? What changes (in people, institutions, attitudes, practices) do you think you will see?

After implementing GGSS we expect to see a number of measurable positive changes amongst the GGSS participants:

- Development of computer literacy skill set (e.g. word processing, spreadsheets, web browsing).
- Improved grades in math and science subjects.
- Increased overall academic confidence.
- Increased problem-solving skills in basic quantitative problem-solving activities.
- Positive attitudinal shifts in classroom instructors and school administrators about the capacity of girls to excel in STEM subjects.
- Positive attitudinal shifts in parents of participants.

WEBSITES

<https://empoweringwomenofnepal.wordpress.com/girls-leadership-training-goal-prog...>

<https://www.facebook.com/groups/33862558468/>

MEET THE TEAM

Project owner

[Sneha Moktan](#)

[Nepal](#)

[Fulbright Student Program](#)

Project members

[Manage members](#)

[Barbara Grossma...](#)

[United States](#)

[Fulbright Student Program](#)

[\[remove from project\]](#)

[Sushil Lamsal](#)

[Nepal](#)

[Fulbright Student Program](#)

[\[remove from project\]](#)

[Archana Shrestha](#)

[Nepal](#)

[Fulbright Student Program](#)

[\[remove from project\]](#)

[Mahmoud Suliman](#)

[Israel](#)

[Fulbright Student Program](#)

[\[remove from project\]](#)

[Brahmanand Thakur](#)

[Nepal](#)

[Hubert Humphrey Fellowship Program](#)

[\[remove from project\]](#)

[Jony Mainaly](#)

[Nepal](#)

[Fulbright Student Program](#)

[\[remove from project\]](#)

In the long term we expect GGSS to lead to a number of changes:

- Long term improvements in cognitive skills and academic achievement of participants.
- Lasting shifts in participating schools' approach to teaching girls in pre-STEM skills, with a renewed focus towards encouraging girls participation.
- Decrease in need for supplemental STEM course trainings for girls once they finish school and are preparing to enter the workforce.

WHO WILL BE INVOLVED?

Beneficiaries: who are your target groups (or communities) and how many people will directly benefit from your project?

Our project focuses on under-served girls studying in classes 6-8 (ages 12-15), a pivotal point in their academic career. After class 8, many girls drop out of school, making interventions before this attrition critical. In its first year, the program will service 270 girls in Pokhara area grade schools. At each participating school 90 students will be enrolled in the program, 30 students each from grades 6, 7 and 8. A trainer will lead weekly two-hour sessions on Friday afternoons (in accordance with the Friday half-day curriculum at Nepali schools). Working with a trainer the participants will rotate between problem-solving activities and computer skills using the unique traveling classroom that will bring laptops to girls.

In addition to directly benefiting program participants, the program will involve the training of several program facilitators in STEM curriculum and group facilitation. GGSS curriculum implementers will be recruited from GGSS's partner organization, Empoweri

Local partners

1) Empowering Women Nepal: EWN is a Nepali organization founded and run by women. EWN has worked with several large grants including monies from The Clinton Foundation and Ashoka. Under a \$23,000 USD grant from Standard Charter bank, EWN currently runs after-school sports programs for young women. Thus, EWN has the experience working with the targeted beneficiaries as well as the institutional capacity to carefully work within the budget as implementing partners of GGSS. Building on their existing expertise and capacity to link with the local school district, EWN staff will implement the GGSS programming after receiving curriculum and implementation training from GGSS team members. EWN staff will be trained by the GGSS project manager and curriculum developers to carry out the program in Pokhara area schools.

2) Pokhara School District: The relevant faculty and staff at the beneficiary schools have already been briefed on the GGSS project and, should the project be funded, are ready to facilitate the programming by generously donating space to carry out activities. GGSS will work closely with district level administrators as well as school administrators and teachers to implement GGSS. Administrators will be kept informed of GGSS programming, while teachers will help recruit and identify GGSS participants.

3) Nyayayukti Research and Resource Center: Nyayayukti is a non-profit founded by core team member Jony Mainaly focusing on legal research in Nepal. Nyayayukti will facilitate GGSS through guest lecturing participants on the importance of STEM skills required to excel in high skill career pursuits. Nyayayukti will also serve as a linking organization between the GGSS project team and the partner organization EWN.

Alumni team

Sneha Moktan, Project Administrator: Lead administration of the project including writing, editing and submission and also coordinate group communications and meetings.

Barbara Grossman, Outreach: Work with EWN staff, who she has worked closely with for over 3 years, to implement the Girls Get STEM skills within the Pokhara area school district.

Jony Mainaly, Project Manager: Be the point person between the project team and affiliate organizations. Will help coordinate their support of GGSS and liase with other organizations to build the GGSS support network and also facilitate cooperation between affiliate organizations Nyayayukti and EWN.

Brahmananda Thakur, Curriculum Development: Spearhead computer literacy curriculum

module including building skills in basic computer operation and computer software package.

Archana Shrestha, Media Coordinator: Document and promote GGSS by creating a highly visible online presence and seeking out media platforms.

Proposed Project Dates: June 01, 2015 - March 31, 2016

HOW AND WHEN WILL YOU IMPLEMENT YOUR PROJECT?

Implementing Plan and Timeline

June 2015-July 2015

- Team Planning Meetings - to coordinate trainings, facilitate dialogue with project stakeholders (, and develop our final implementation timeline in partnership with EWN.
- Curriculum Development - component on computer literacy and problem solving will be developed in tandem to complement each other and to facilitate progressive building of skills.
- Construction of Mobile Classrooms. Equipment such as laptop computers, projectors and curriculum manuals will be collected into the three portable trunks that will be dispatched each week with trainers implementing the GGSS curriculum.
- Coordinate with Local Schools - our team will work with local school administrators to ensure curriculum modules are aligned with academic calendar.

August 2015-September 2015

- Implementation of first curriculum unit in Pokhara schools - classes will take place every Friday afternoon to complement the half-day Friday curriculum at Nepali government schools. This will ensure participants don't have to make a special trip to attend and will reduce program drop-out.
 - Curriculum 1 to cover: Introduction to computer skills, Basic word processing, Web browsing, Introduction to problem-solving skills, Critical thinking, Problem solving in teams
- Baseline survey of program participants and key stakeholders.

October 2015-November 2015

- Meetings with Project team in Kathmandu- making use of the Nepalese national holiday (school breaks during these months, necessitating a break in GGSS implementation) we will conduct and internal evaluation of our progress and the first curriculum unit.

December 2015-January 2015

- Implementation of second curriculum unit in Pokhara schools.
 - Curriculum 2 to cover: Intermediate word processing, Introduction to spreadsheets, Intermediate problem-solving, team problem-solving competitions.
- Preparation and distribution of mid-term report to stakeholders.

February 2015-March 2015

- Implementation of third curriculum unit.
 - Curriculum 3 to cover: Advanced word processing, Creating web content, Creating charts, graphs and presentations, Capstone problem-solving team project.
- Impact Survey of participants and stakeholders
- Preparation and distribution of final report
- Fundraising for future implementation

Communication Plan

Pre-implementation communication plan:

- Communicating with target schools about what they can expect at each phase of GGSS implementation and ensuring they “buy in” to the goals of the program.
- Carrying out regularly scheduled discussions with project partners to keep them updated on progress of project.

During the project, information about the progress and success of GGSS will be shared with beneficiaries through:

- A mid progress report. Feedback will be solicited on the effectiveness of the program at the project’s midpoint from both participants and key stakeholders.
- A final project report. Feedback will again be solicited, especially in regards to how responsive programming was to previous rounds of participant input.
- Reports that are clear and accessible to all beneficiaries and affiliate organizations.
- Affiliate organizations including EWN will be provided with a copy of the final report.
- Each participating school will be provided with copies of the report to go to the head of school and relevant grade level course instructors.
- The district education office will be provided with a copy of the mid-term and final report at the conclusion of year 1.

In addition, our team members will promote the GGSS project on multiple media platforms by:

- Working with both English and Nepali language newspapers to publish short articles on the GGSS program and its importance.
- Create a GGSS twitter account and actively maintain content about the program as well as girls and STEM generally.
- Creating and maintaining a Facebook page for GGSS with real-time content, to increase the visibility of the project.
- Using the photographic skills of project team to publish a phot essay in an online media platform.

Evaluation

Evaluation

GGSS will employ multiple evaluation methods to ensure the project is implemented efficiently and effectively. Evaluation of success and impact will include:

- 1) Pre and post project implementation survey of participants interest in STEM careers and awareness of STEM skills and their application.
- 2) Pre and post project implementation focus group of GGSS participants. The focus group will address participants perceived barriers to success in STEM subjects and if/how GGSS was successful in addressing those barriers.
- 3) Pre and post project implementation interviews with key stakeholders including affiliated school faculty and staff and project implementation partners. The interviews will gauge attitudinal shifts towards girls’ capabilities in STEM subjects as well as gauge satisfaction with GGSS implementation.
- 4) Project summary report incorporating findings from evaluation survey and interview materials will be produced for use by project team and for reference by project stakeholders including affiliated organizations and partner schools.

Sustainability

The project involves working closely with EWN, a local partner with a proven track record of implementing such programs, increasing the chances of sustainability (even replication). During the project year, the team will work with the schools to incorporate the new syllabus within their budget. Once the initial curriculum has been developed, the marginal cost of retaining the trainers for subsequent years will be minimal and can be borne in part by the school. If the schools agree to this, it will reflect their ownership and commitment to the cause. The nature of this project necessitates investing in hardware so as to maintain the flexibility

and sustainability of this program. Laptops make the concept of a mobile classroom possible and once hardware is purchased the program can run with very small financial input while the curriculum evolves as needed – the essence of sustainability. Lastly, we strongly believe that this project can continue into subsequent years, with the guidance of EWN whose staff will be trained and who have already ensured their 'buy in' to continue the programming beyond Year 1. Our team will also promote the project through several media outlets and work with EWN to raise additional funds.

TOTAL FUNDING REQUESTED

\$21,330.00

PROPOSAL DOCUMENT:

[Download budget](#)