



Summer 2016 Newsletter



ENGINEERS WITHOUT BORDERS-USA
COLUMBIA UNIVERSITY
STUDENT CHAPTER



Inside:	
Presidents' Note.....	2
Ghana Program.....	3
Morocco Program.....	5
Uganda Program.....	7
Thank You!.....	9
Help Us Help Others.....	10

PRESIDENTS' NOTE

Dear Friends of Engineers Without Borders,

On behalf of the Columbia University student chapter of Engineers Without Borders, we would like to extend our warmest gratitude for your continued support. Our success bringing long-term solutions to developing communities is made possible by the support of all of the students, alumni, mentors, and professionals who collaborate with us and cheer us on.

Over the winter break, the Morocco program traveled to continue implementation of a water distribution system in Ait Bayoud, while the other two programs continued planning for their projects. Throughout the semester, both the Morocco and Ghana programs have been working hard on implementation plans for the summer with the help of our fantastic professional mentors. The Uganda program has been concentrating on transitioning to a new project.

In addition to all of the great technical work we did this spring, we have also been working on strengthening our relationship with the Columbia community. We held a Spring Sustainability Panel in which we had Professor Elliott Sclar, Professor Samuel Sia, and Professor Matt Sisul speak about their research and their experiences with sustainable development. This discussion incorporated insights from several disciplines thanks to the diversity of the specialties of our panel members, and those of the students in the audience. Our other main event for the spring semester was our annual 5K. This year, we were able to partner with many local businesses – including Starbucks, Book Culture, and Oren's – to make the 2016 5K a huge success.

Over the summer, all three programs will be traveling to continue work on their respective projects. We look forward to hearing all about what they accomplish in their communities.

Thank you again for your continued support of our chapter. The work that EWB-CU is doing is making an impact, and the support you provide us is instrumental to our success! We hope that you will continue to support the chapter as we lead it into the coming school year.

Warmest regards,
Wing-Sum and Jamie
Chapter Co-Presidents
Engineers Without Borders – USA Columbia University



GHANA PROGRAM

Obodan | Amanfrom



A Project in Transition -

After observing 10 years of partnership with the village of Obodan, where we implemented a water distribution system and nine latrines, we are excited to report that we have begun work with the village of Amanfrom with a new project (in addition to transitioning out of Obodan).

Kwasi Doi -

During our last trip in August 2015, our team implemented a Kumasi Ventilated Improved Pit (KVIP) Latrine in Kwasi Doi, which is a satellite village of Obodan, the community where we have been working for 12 years now. We had previously implemented eight latrines and a water distribution system in the Obodan area. This semester, our latrine team planned the monitoring phase for this newest latrine.

When we travel this upcoming August, we want to ensure that the latrine is working properly, is being used correctly, and that the people of Kwasi Doi have complete ownership and control. This will be accomplished through physical inspection of the latrine, meetings with community leaders—who are in charge of latrine upkeep—and by surveying local citizens for their satisfaction with the latrine and their understanding of its importance for community health.



Moving Forward

Thank you for supporting and joining in our partnerships with the communities in Ghana! It has been a very busy year for EWB-CU Ghana, but we are excited about our program's future and are looking forward to a safe, fun, and productive trip this August!

Water Assessment – Amanfrom

The Kwasi Doi latrine was our final project in the Obodan area, so we are now transitioning to the neighboring village of Amanfrom, which suffers from a severe lack of potable water. After seeing the successful water distribution system in Obodan, the people of Amanfrom reached out to us for help with their water crisis. We completed the initial assessment steps of the project—collecting data about the area, surveying community members, etc.—on our January and August 2015 trips.

This semester, after analyzing this data, our team came to the conclusion that the community will need additional water sources to meet its full need; the current hand-dug well, two springs, and two streams do not provide adequate water, especially during the dry season. After completing an alternatives analysis and consulting closely with our community contacts, we decided to drill two additional boreholes in the area and to attach handpumps to them.

If these boreholes provide sufficient yields, we will use them for a future distribution system. We have been in contact with local borehole drilling contractors to plan this process for our August trip. We are also working closely with the community to ensure that our trip will go smoothly and that money is being raised to help offset the costs of these boreholes.



MOROCCO PROGRAM

Ait Bayoud

The past academic year has been an exciting and challenging one for the Morocco Project. Currently our Water Project is in its implementation stage, with a fully developed well and pipeline under construction which is currently 1460 feet long. Our Bridge Project is in its third year of monitoring.

This semester we have been lucky to welcome three new mentors to the program: Paul Napoli, Matt Riegel, and Bob DiFilippo. We are excited to have them on board and helping us move the project forward. Our Power Team, new as of this year, developed feasible plans for future installation of solar panels to power the well pump.

In addition, we have begun to solidify our women empowerment program, and are looking into developing an argon oil cooperative for the community women to run upon completion of the water system. We look forward to making great strides during the coming summer trip and beyond!



Water Project

Following a fruitful trip in August 2015, which marked the beginning of pipeline construction for the water project, we have focused on finding the best in country procedure for pipeline construction and sharing it with the community members of Ait Bayoud.

During our winter trip in January 2016 our travel team performed a test on the pipeline constructed in August 2015 and found a number of joints were leaking. In addition, we discovered that the new piping from our vendor was damaged. Despite these setbacks, the Morocco Project has continued to focus on developing plans and procedures that will best empower our partner community. Our piping team devised a procedure to fix the existing leaks while solidifying a new pipeline extension procedure that will prevent future troubles. Similarly, our partners at the Morocco Peace Corps have been a great support in helping us find a new local vendor.

We have grown a lot as a project this year, we anticipate smooth progress to complete the pipeline in the coming semesters.



Bridge Project

Our Bridge project is currently in its monitoring stage. This summer we are beginning a preventative repair to remove and replace fracturing UHMW pipe on the bridge abutments. Additionally, we are in the process of developing a picture-based manual for the bridge to be given to the community.



UGANDA PROGRAM

Soroti Region



Multi-Function Platform:

EWB Uganda had a very exciting semester! Members worked very hard to prepare to closeout the Multifunction Platform project after eight years in Soroti, Uganda. Teams will be traveling in June and August to eight communities to ensure they are ready to independently continue maintenance of their agricultural processing systems. During the semester, students worked to compile a manual with maintenance suggestions and good business practices to deliver to our communities this summer. Travel teams will also monitor the success of pollution control methods recommended for each site during visits last summer.



Fundraising and Grants:

Our Fundraising and Grants team made a big impact through initiatives like Study Samosas, which will make sure that all EWB members who hope to travel are given the chance to do so.

Moving Forward

Our New Project Team also began to search for our new focus and has met several times with Professor Vijay Modi who runs the Sustainable Engineering Lab at Columbia's Earth Institute. They discussed a rural electrification project near Mbarara, Uganda that has potential to provide an efficient method of purchasing and providing electricity to light homes and run machines in local businesses. The project is especially exciting as our members who have a background in computer science and electrical engineering who will be able to their knowledge to technical design while other members will be able to improve their computer science and engineering skills. Throughout the past semester, team members worked hard to wrap up our MFP project and find a new project that will have a positive impact on a community in Uganda. We are looking forward to another exciting and productive semester in the fall!



NAME	GRADE	PARTICIPATION	TEST	RATE
ALIAO BETTY	LATE	100 =	100 =	
ATIM MARTIN	LATE	100 =	100 = NO ✓	
AMORU HALIZA	LATE	100 =	100 ✓	
EMESU SAMUEL	LATE	100 =	100 ✓	
ATIM HALLON	LATE	100 =	100 =	
ALIAO SARAH	LATE	100 =	100 =	
16/10/2014				
ASINGO HELLEN	LATE	100 =	100 =	
AMORU LAZARO	"	100 =	100 ✓	
ATIM MARTIN	"	100 =	100 =	
ALIAO JOSEPHINE	"	200 =	300 =	
EMESU STEPHENIE	"	100 =	100 =	
22/10/2014				
OGEN TOM	LATE	100 =	100 =	
EMESU S.	"	100 =	100 =	
ACITO L.	ABSENT	200 =		
OGITA BUSINA	"	200 =		
EYIJUNU DANIEL	"	200 =		
AMORU L.	"	200 =		
ETUBU JOSEPH	LATE	100 =	100 =	
AMAGE FABE	"	100 =	100 =	
27/11/2014				
ALIAO JOSEPHINE	LATE 200	\$00		
EMESU SAMUEL	"	\$00	100 = ✓	
ACITO ALICE	"	\$00		
EMESU STEPHENIE	"	\$00		
11/12/2014				
ATIM MARTIN	"	100	100 =	
ALIAO JUDITH	"	100	100 = ✓	
AMORU HELLEN	"	100		
ALIAO ROSE	"	100	100 = ✓	
ALIAO JOSEPHINE	ABSENT	200 + 200		
ATIM MARTIN	"	100		

THANK YOU!

Our work is made possible by the contributions of many:

EWB-CU's work is truly a group effort. Our program's have done wonderful work over the years, none of which would have been possible without our many contributors and supporters. We would like to thank all of our members, mentors, and supporters that help ensure the success of our projects. We would also like to thank everyone who supported and volunteered for our many events. Finally, we'd like to thank the many sponsors and grants whose financial support makes our continued work possible:



HELP US HELP OTHERS

Sponsorship and Donations

Visit www.cuewb.org to learn more about online donations and to view our sponsorship pages. We appreciate all forms of contributions and thank you in advance for your generosity.

Mail Checks to:

EWB-USA
4665 Nautilus Court, Ste 300
Boulder, CO 80301

Memo Line:
Columbia University Student Chapter

Donate Online:

<https://support.ewb-usa.org/cuewb>

Have Extra Frequent Flyer Miles?
Donate them to our chapter or individual programs! Your miles can offset our students' or mentors' travel fees and make a world of a difference.



Get Involved

We are always looking for both student members and professional mentors alike! Contact the Project Managers or cu-ewb@columbia.edu. We are in need of technical and non-technical expertise; you don't have to be an engineer to join Engineers Without Borders!

Ghana

Project Manager:
Sarah Yang
[\(sjy2118@columbia.edu\)](mailto:(sjy2118@columbia.edu))

Aaron Appelle
[\(aba2146@columbia.edu\)](mailto:(aba2146@columbia.edu))

Meetings:
Tuesdays @ 8:00 PM (Mudd 834)

Morocco

Project Manager:
David Brown
[\(deb2170@columbia.edu\)

Anna Libey
\[\\(akl2154@columbia.edu\\)

Meetings:
Tuesdays @ 9:00 PM \\(Hamilton 603\\)\]\(mailto:\(akl2154@columbia.edu\)\)](mailto:(deb2170@columbia.edu))

Uganda

Project Manager:
Rebecca Miller
[\(rlm2180@columbia.edu\)

Ryan Davies
\[\\(rtd2119@columbia.edu\\)

Meetings:
Mondays @ 9:00 pm \\(Mudd 825\\)\]\(mailto:\(rtd2119@columbia.edu\)\)](mailto:(rlm2180@columbia.edu))