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## Fall 2014, Clean Water and Deep Learning in Gambia

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University of  
New Hampshire

# International Educator

The Newsletter of UNH Global Engagement

Fall 2014

## CLEAN WATER AND DEEP LEARNING IN GAMBIA

*Contributed by Drew Obston '14 (English) and Bill Maddocks, Carsey School of Public Policy*

*FOR UNH STUDENTS WHO HAVE AN OPPORTUNITY TO ENGAGE IN OVERSEAS DEVELOPMENT PROJECTS, THE EXPERIENCE CAN BE LIFE-CHANGING. ANDREW OBSTON '14 SHARES THIS ACCOUNT OF HIS SUMMER INTERNSHIP IN GAMBIA, WORKING WITH THE GLOBAL DEVELOPMENT GROUP AGUA INC.*

Gambia is a tiny country, not much bigger than Rhode Island, on the western most point of Africa. Agua Inc. works mainly in water purification, using naturally growing plants to clean wastewater for agricultural and drinking use. I went to Gambia to work with Agua on water purification issues, but my experience, my learning in West Africa went far beyond that.



*Co-CEO of Agua Campus Pedro Delgado Ortiz (l.) making biochar, a carbon sequestering fertilizer alongside local Gambians*

At the Agua Campus, I worked alongside a diverse group of people ranging from the two CEOs of the company to interns who majored in Urban Planning, International Policy, Biology, Physiotherapy, Journalism, and Chemistry. They came from colleges in America, towns in Spain, and local communities in Gambia. Together we worked side-by-side with government entities, NGOs, and local community leaders to enhance the Gambian society and culture in a number of ways.

Our primary goal in Gambia was to set up our water purification system in the Kotu community. Their current wastewater treatment system, charged with purifying water for 200,000 Gambians, is insufficiently waterproofed, causing polluted runoff into neighboring farms and the nearby ocean. It is often shut down for periods of time, as a result of the lack of consistent chemicals and electricity. The treatment plant we are installing in Kotu features Agua's ABIS technology, which is unique in that it uses locally grown Typha

plants to accomplish the entire purification process with little electricity and no chemicals. This is an amazing accomplishment for Agua, Gambia, and for many countries around the world that have water purification challenges. A little statistic: 90% of the developing world lets wastewater go untreated. This is simply unacceptable. In Mali, where Agua's system was implemented approximately ten years ago, Cholera has been eliminated, and child mortality has been decreased by 75%. The treated water there now meets EU standards of cleanliness, has been used for agriculture, drinking water, and even ice cubes.



A group of us wearing coordinated Agua Inc. outfits during a presentation at the U.S. Embassy, alongside NEDI (National Entrepreneurial Development Initiative) Director Landing Sammeh (r.)

However, what I really like to talk about is the incredible community that I would become immersed in while working with Agua at their campus. During my time in Gambia, I worked to propose an incubator for unemployed youth to research methods for alternative refrigeration techniques in fishing villages. I collaborated with students to create energy from scraps and wires. I worked with villagers to build banana septic tanks that cleaned water at the same time as it produced bananas for the family. Beyond that, I built a solar dryer out of drift wood and chicken wire, negotiated with farmers and fishermen to turn their waste into biochar, and shared my time with people who completely changed the way I think about community development and culture.

The amount and diversity of projects I was able to engage in with Agua was more than compelling. If there was something I was interested in we could either find the resources or meet and discuss with someone who could teach me about what I wanted to do. For example, I'm very interested in microfinance and community loan funds. My hope is to set up microfinance programs with the goal of financing environmental projects for the community such as those of Agua Inc. While in Gambia, I was able to meet with the head of the Gambian Social Development Fund, thanks to coordination with Bill Maddocks of The Carsey School of Public Policy. I talked with the executive director of the Gambian Central Bank, I spent time working with the National Entrepreneurial Development Initiative, a nationally-funded MFI, and I learned about local community funds known as Visacas. Thanks to my internship, I learned how to mobilize and take advantage of the opportunities and assets to which I have access.



*Our front yard and the school across from the home that I lived and worked in as part of the campus*

What I learned most significantly is that you must have passion about your work. I engaged with so many people who truly believe in what they do. These people care about Gambia, whether they were locals or foreigners. They believe that when given the chance this country and its people could build and grow their communities and foster a new society. Agua Inc. showed me that when you have a cause that you are passionate for people will join you and support you at every turn. This was an incredible thing for me to experience; there were people coming out of the woodwork from every kind of government organization and community initiative to support something that they realized could do some real good.

The first real example of this was actually when I was fundraising to make this trip a reality. I created one of those crowdsourcing pages on GoFundMe in the hopes of raising some money to extend my

stay. My parents got a hold of the page, teachers from high school got a hold of the page, an old babysitter of mine got a hold

of the page. They donated, but more importantly they talked about it, they told people about what I was doing and they got behind me too. Suddenly, we exceeded our donation goal within a month and a half. This was truly my first introduction to the world of Agua Inc. and global development. People care, and when you give them the opportunity to show it, they will shine. That is what I saw in Agua and what I realized I was able to see in myself.

This experience went so far beyond the internships and learning experiences I've had that putting it into a resume was quite possibly one of the hardest self-marketing tasks I've ever engaged in. This was a fully immersive experience in a culture that I worked to grow and build. I lived with these people, I taught these people, and of course most importantly, I learned from these people. It is absolutely impossible to help a culture and a people without getting to know them first. It does not matter how many books you read or how much research you do, if you don't understand the people you are trying to help, and work with, you will not succeed.

As a popular phrase of Gambia goes, "When a mother has a one legged baby, only she knows how to properly strap it to her back." Now what on earth does that mean? This is how my friend Saikou explained it to me: Only a person who has experienced the hardships and difficulties of a tragedy or problem understands the innate way to form a solution. Sure, they may not have the resources, but they understand the problem far better than anybody coming in from the outside does.

Thus, if there are students who care about community development, if there are students who want to learn what it's really like to drive change in the developing world, if there are students who want to make a difference, they need experiences like Agua Campus. They need the opportunities that allow them to learn and apply what they have learned to the real world. They need to be able to see that the work they are doing has purpose and is connected to a larger chain that is driving a movement. Often while in Gambia I sat in meetings or wrote emails utilizing tiny skills I'd learned in English classes or in Econ labs. Over time I saw the overall effect that these had, how they pushed what we were doing forward as part of a team initiative. Let's work together and let's bring more students to Africa; let's show them what it means to care, what it means to succeed, and what it means to shine.

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