GHANA

Water Without Borders 2016

CELEBRATING 20 YEARS

UNITED NATIONS UNIVERSITY

UNU-INWEH

Institute for Water, Environment and Health

McMaster University

Preface

The United Nations University Institute of Water, Environment and Health (UNU-INWEH) envisions "a world free of water problems where sustainable human development and environmental health and security are assured for all". The Water Without Borders (WWB) Programme, a joint initiative of UNU-INWEH and McMaster University, constitutes an important part of this vision.

WWB is a graduate programme that explores the multiple dimensions of global water challenges that cross geographical and disciplinary borders. Bringing together graduate students from diverse professional and academic backgrounds, a major highlight of WWB in 2016 was a study trip to Ghana. This field trip exposed participants to the water, sanitation and hygiene challenges in a developing country context and encouraged these young professionals to ponder about innovative, borderless solutions to water-related problems experienced from Africa to North America.

This booklet presents the participants' impressions of Ghana and the water challenges they witnessed, coupled with imagery they chose. This presentation is meant to share perspectives encountered in Ghana during the field trip, and to inspire more students to take up the WWB challenge.

Dr. Zafar Adeel, Director
United Nations University
Institute of Water, Environment and Health

Ghana Water, Kpong

Introduction

More than 40% of Ghana's 25 million people lack access to safe water, and it is estimated that only 13% of people have access to improved sanitation. Diarrheal disease is often caused by drinking contaminated water. It is the third most commonly reported illness at health centers across the country and 25% of all deaths in children under the age of five are attributed to diarrhea.

Peri-urban Accra

Several factors contribute to the water and sanitation problems in Ghana. First, local solutions are often not sustainable and do not provide water of adequate quality for health and wellbeing. Most people rely on untreated surface water sources, which frequently contain life-threatening parasites and high microbial content. In some regions of the country, even if water quality treatments are adequate, many households suffer from water scarcity in the dry season.

Water point in East Legon

22% of the total population of Ghana lives on less than US$1.25 per day, and typically, rural areas are the poorest. Rural and remote villages also suffer from the worst water supply, water quality and sanitation problems.

Market near Kpong

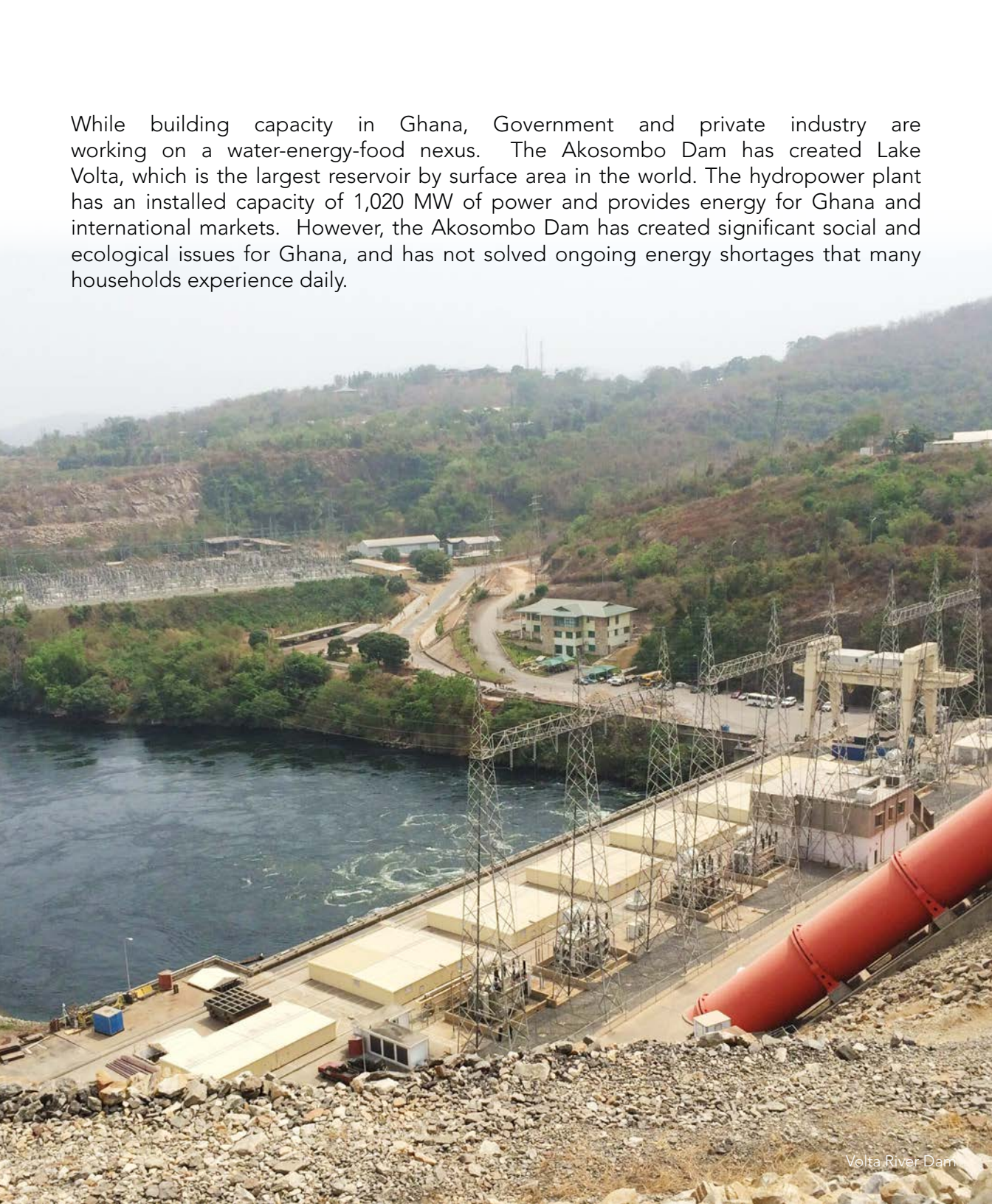
Although progress has been made, communities, particularly in rural areas, lack basic training and capacity to maintain rain water storage, groundwater hand pumps and other systems that well-intentioned organizations have provided. As a result, the majority of rural water systems fail prematurely: current estimates indicate that 29% of all rural and peri-urban hand pumps are broken, and an additional 49% are partially functioning. Education and training by Ghanaians, for Ghanaians is a key priority for organisations on the ground.

Water kiosk in East Legon

Innovation is flourishing in Ghana, with Non-Government Organisations (NGOs) and United Nations agencies working with community organisations to provide new models of water provision. In this photo, a community and NGO managed water kiosk sells affordable, clean water to local people.

Water kiosk in East Legon

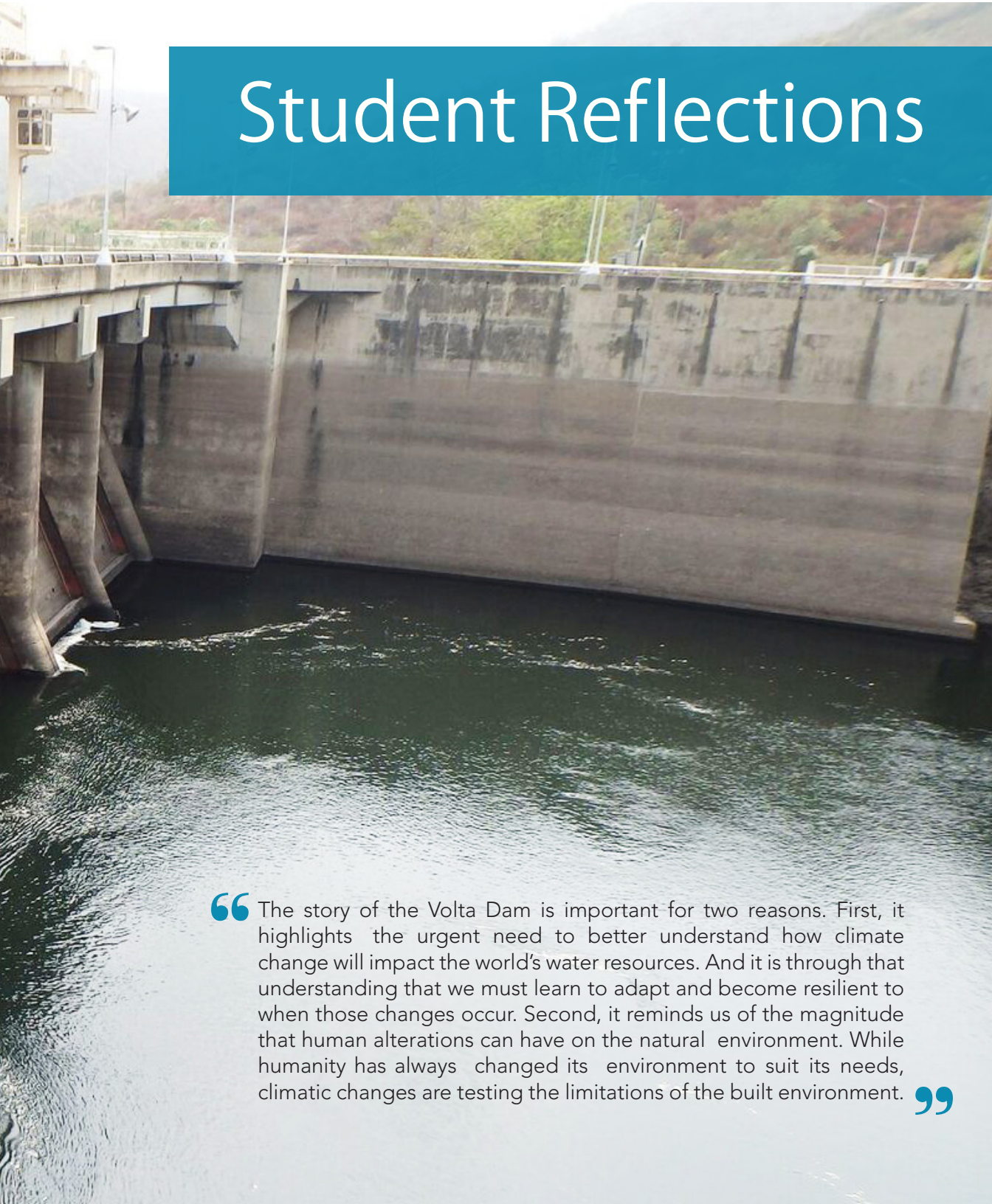
While building capacity in Ghana, Government and private industry are working on a water-energy-food nexus. The Akosombo Dam has created Lake Volta, which is the largest reservoir by surface area in the world. The hydropower plant has an installed capacity of 1,020 MW of power and provides energy for Ghana and international markets. However, the Akosombo Dam has created significant social and ecological issues for Ghana, and has not solved ongoing energy shortages that many households experience daily.



Volta River Dam

Volta River Dam

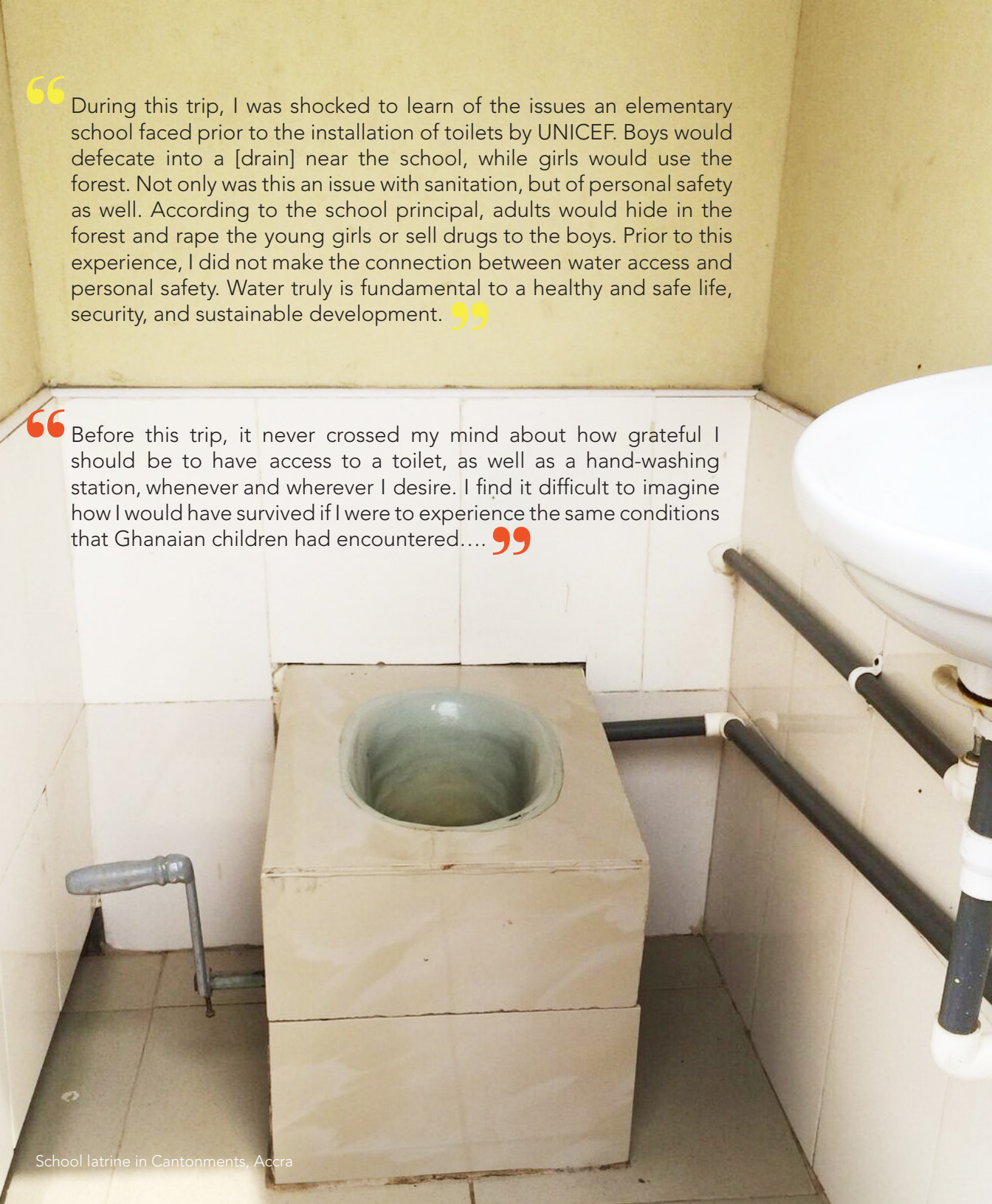
Student Reflections



> The story of the Volta Dam is important for two reasons. First, it highlights the urgent need to better understand how climate change will impact the world's water resources. And it is through that understanding that we must learn to adapt and become resilient to when those changes occur. Second, it reminds us of the magnitude that human alterations can have on the natural environment. While humanity has always changed its environment to suit its needs, climatic changes are testing the limitations of the built environment.

“During this trip, I was shocked to learn of the issues an elementary school faced prior to the installation of toilets by UNICEF. Boys would defecate into a [drain] near the school, while girls would use the forest. Not only was this an issue with sanitation, but of personal safety as well. According to the school principal, adults would hide in the forest and rape the young girls or sell drugs to the boys. Prior to this experience, I did not make the connection between water access and personal safety. Water truly is fundamental to a healthy and safe life, security, and sustainable development.”

“Before this trip, it never crossed my mind about how grateful I should be to have access to a toilet, as well as a hand-washing station, whenever and wherever I desire. I find it difficult to imagine how I would have survived if I were to experience the same conditions that Ghanaian children had encountered….”



School latrine in Cantonments, Accra

“Throughout my undergraduate I studied many concepts and issues surrounding sanitation, education and capacity building, this trip was the first time where all concepts were laid out at once, and I was able to gain a contextual understanding of all problems in situ. A theme I found particularly recurrent and close to home was the importance of the empowerment of women in developing economies, and how small improvements in water or sanitation infrastructure can make a world of a difference for many women and children.”

Water Kiosk, perii-urban Accra

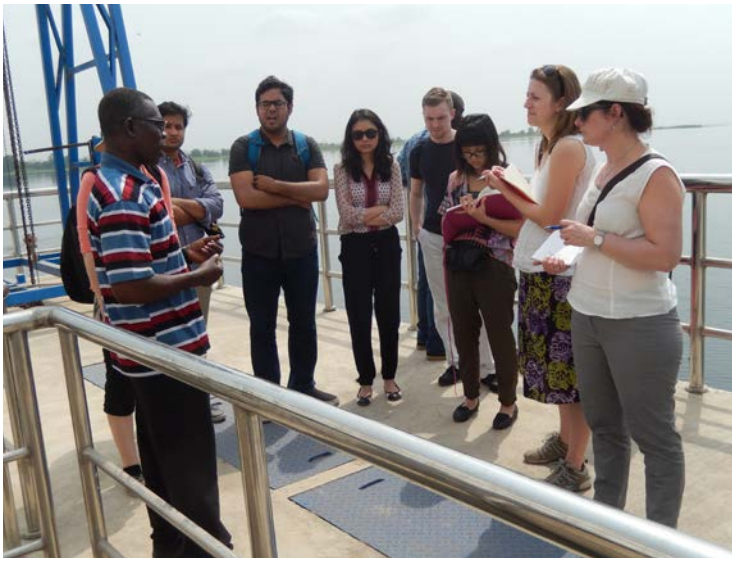
“This trip has helped reinforce that an important part of visiting a new place is stopping and smelling the roses. Or in this case, stopping and tasting the mangoes. I think making the effort to understand people’s lives, local culture, and the natural environment is hugely important… Focusing solely on the problems at hand without taking the time to get to know people involved and understand the broader context can lead to ineffective, unsustainable solutions. It can also result in a paternalistic dynamic, assuming the basis of the interaction is on the Ghanaian person having a problem and the foreigners having the solution.”

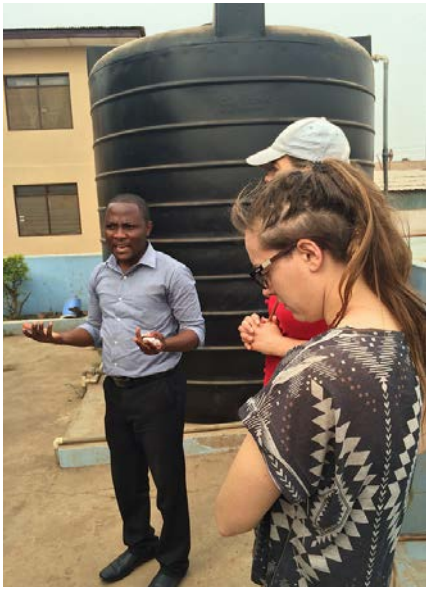
“This picture was taken in front of the main facility of the Ghanian Council for Scientific and Industrial Research – Water Research Institute (CSIR - WRI). This Institute is a scientific research organization whose main objective is to understand all aspects of Ghana’s water resources in order to achieve the sustainable development and management of these resources. The staff of CSIR-WRI who are present in this picture are incredibly passionate about the work they do; they know that their country’s future is tied to its water. It is unfortunate, but many people who live in high socio-economic countries have the incorrect belief that countries in the global south have very little capacity to conduct high quality scientific research. The scientific investigations that are being accomplished in this institute are a testament to how incorrect that belief is.”

The trip ended in Woadze Tornu, a rural village that had been a focus of CLTS – community led total sanitation, guided by Plan International. The Plan initiative including training "Natural leaders", assisting the construction of household latrines and building knowledge about sanitation practices; this included sharing knowledge about the many health impacts of open defecation.

"Community Lead Total Sanitation (CLTS), was somewhat of a controversial program from our discussions prior to the trip. It is run through Plan International in highly rural and remote areas to eliminate open defecation, and visiting the village was another unique experience. Listening to them explain the importance of sanitation and the impact that CLTS has had on their community; from improving health to gaining national recognition for their efforts, to getting a school and other infrastructure as a result, was quite inspiring. But at the same time, on our way down to the lake, seeing the impact that climate change has had on the area and the impact other communities and government projects upstream have had on their water and health was unfortunate. For a community that relies heavily on fishing and being by the water, seeing the impact that receding water levels and biological contaminants has had on their livelihoods brought about a sense of urgency. It was also an interesting experience to contrast how the lives and livelihoods of people that we met in person had a more meaningful impact than would have been felt if they were stories that were read in a paper or article."


WATER



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We would like to thank several organisations for their passion, knowledge and time:

All the staff of the United Nations Institute for Natural Resources in Africa
Safe Water Network, especially Mr. Francis Tetteh Zomayi
The Canadian High Commission, especially Ms. Jenny Hill
UNICEF, especially Mr. Paa Kwesi and Mr. Niall Boot
All the staff of the Water Research Institute in Accra
The Ghana Water Company
Zoomlion Waste Water and Sewage Plant
Safi Sana, especially Mr. Raymond Okrofu Ategbi
Plan International, especially Mr. Daniel Asamani

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CSIR

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