Dear Brothers and Sisters in Christ,

Approximately four years ago, Bob Hayes, a local missionary for Mission Uganda asked me a very important question, “Do you think there is something you could do to improve the water quality in rural Uganda?” Since that time, I have been involved in research to develop simple methods to disinfect and clean the water supply. My focus has been on using materials that are available in a local area and methods simple enough for an uneducated villager to use.

The ministry has branched out into other areas as well. I have been asked to teach on Sundays whenever I am in Uganda. This part of the ministry is great for those Christians who are firm in the faith, but not experienced in teaching from the pulpit. Simple messages of God’s grace, with illustrations, come across very well with the Ugandans, who are typically very young in the faith. The fundamentals of the faith are particularly important and there are no shortage of pulpits to fill on Sundays.

The second area of the ministry is related to the research. I have been in contact with several Universities (Trier, Germany, Grenada, Spain and Grenoble, France to date) to offer my research projects to their Bachelor’s and Master’s students for further research. I have been allowed to guide several students in this way. Whenever possible, I have taken the students with to Uganda. This gives them the opportunity to implement their projects in the field, while under the guidance of a senior engineer. This relationship helps them to develop much faster as engineers learning from the knowledge of an experienced engineer and seeing first hand the problems of implementation and how to deal with them, as well as benefitting the local community.

My team and I have implemented a simple salt chlorination system consisting of a car battery, two electrodes, a bucket filled with local water and table salt. A single bucket can disinfect the drinking water supply of a village of about 100 people. The battery is recharged using a solar panel, which also supports lighting for one house at night. Since the water is very dirty (brown or green), we implemented a simple rapid sand filter in a water barrel this past year. The result of our work was clear disinfected water.

The following report is typical of our experiences in Uganda. More information can be found at http://www.ugandamission.net/water.html or by contacting me at michael.ottensmann@gmail.com.

28 April 2017

Grace and peace to you my brothers and sisters in Christ from sunny, warm Uganda. I wanted to give you a quick report on our progress. The first filter is up and functioning fairly well. I taught from the pulpit last Sunday at Yesu Akwagala Community Church on forgiveness.

We wanted to start the second filter and received a shock - the other villages refused the filters. About a week ago, another village had built a still to generate some income. And in the night, someone poisoned the still. Several people became very ill and some may have died. The police captured a devil-worshipper who wanted to discredit the Christian community. There are several devil-worshipping enclaves in the area. Now all the villages are afraid that if they took a filter, it would be poisoned.

So we switched plans. There is a natural spring in the area that serves all the villages in the area. They asked us to create a cascade filter to clean the water from the spring. Apparently, if there is moving water, there's less fear of poisoning. It is a monumental task to design one in a day or two, but God is faithful.

That evening, we received our next setback. The spring is at the bottom of a deep valley and there is no road. We found a driver brave enough to make the drive with a truck full of stone, but several farmers refused passage through their farm.

Later in the evening we were allowed to participate in a seldom occurrence, the tribal counsel. All the chiefs from the surrounding villages gathered to discuss the project and discover what kind of folks we were. After long discussion, they began to be more favorable. Pastor Yawe explained that we were Christian and I was allowed to pray for the assembly, then they decided. We could go forward with the project and the farmers would be required to allow passage. For this we praise God.

The next morning, every able-bodied man and several women showed up to muck out the spring. I worked with them side-by-side until about noon when they had to get off to work. I was pretty well caked with mud.

The work continues. Blessed be the name of the Lord.

Michael

SDG

17 May 2017

This past week I was asked whether the mission trip was successful. How do you measure a mission's success? How do you describe a year's worth of blessings all packed into a few weeks? How do you account for all the ways you saw God's hand in those action-packed weeks? And yet a few things cannot go without mention:

The first week, I taught on forgiveness, a relevant topic wherever in the world you are. The second week, I taught on Revelations 21- paradise. This has particular relevance for Ugandans. Death is an almost weekly event. They are well acquainted with hunger, dependent on a good crop for food. A day job nets about $1.00 per day. There are no streets as we know them. Think back on the dirt roads of your

childhood, ruts and all. The teaching brought great comfort and encouraged many to share the Gospel with their neighbors.

For the engineering side of our work, we set out to build filters in four villages. In the end, we built one filter for one village, one cascade filter on a spring – a regional water source serving about six villages and repaired a well in another location. A word on the cascade filter: We had intended to build cistern filters and Violeta, my Masters student, was not intended to come along. Her Masters is on designing a cascade filter. In a last minute change, she ended up coming and the Lord gave her, unexpectedly, a cascade filter to build. By the end of the trip, the chlorinated water in the first filter had a bacteria count of zero. While it's too early to claim success, it is a great step forward for the village. The work on the cascade filter is on-going.

I'd like to mention a couple of events from New Covenant Church. They are located the farthest from all other areas. This is the church that adopted me as a member last year. As the pastor explained, you cannot underestimate the impact that our coming has on the congregation. For people that remote, a team coming from that far away, preaching the gospel and bringing help. It is a great encouragement to them, an answer to prayer. On this trip, there was again an auction. Last year, an old lady brought a pumpkin. This year, it was a pineapple. Between the money from the auction and the special offering, we raised enough from ourselves to pay for the roof for the new church building.

The other event was significant for me personally. As is their custom, they introduced each one of my team in the Church service, but strangely, I wasn't introduced. After the service, I asked the pastor why. He looked a bit puzzled and explained, "you're one of us!"

A word on the value of food: How significant is it, that they once a year set out traps for flying ants so that their children can have the nutritious treat of handful after handful of tasty and to eat? By nightfall, the ants were all gone and didn't return during our visit.

On our visit, it was our custom to distribute sweets to the children on the way to the villages. Our driver explained that much like Germany in the war years, a simple treat like a lollypop was a once a year treat that only happened at Christmas. How happy the children were when the "sweeti bus" drove by.

And how much more significance did a simple birthday celebration in church have. One of our members, Florian, had his birthday on the first Sunday. I convinced the hotel cook to bake him a birthday cake (at great cost, I might add, even for German standards), which we took to the service. The pastor blessed the cake and all those who had a birthday that month (two little children). And then we divided the cake. Much like the loaves and the fishes, we cut the cake into ever-smaller bites so that each member had their first sweet treat since Christmas, if they even had it then. And there was just enough cake for all, with none left over.

In part, I measure the success of the mission in terms of the spiritual changes in those who were touched by the mission. I already mentioned the congregation of New Covenant, and certainly the villages and the village council by both our work and our prayers – especially the Muslim leadership with whom I worked side-by-side in mucking out the filter pit.

I measure significance in the lives of those who joined me. Where once being asked to lead prayers at mealtime was an embarrassing event, turned over time to be a part of the every day life. And how do you measure the value of the growth in maturity in our young ladies as they came to realize that they were not just along for the adventure, but became role models for the young Ugandan women who aspired to be like them when they were old enough?

And what of the engineers themselves? These young ladies are now better educated and more mature than their peers; more ready to take their place in the engineering world. Or the young university film student we took who now has the opportunity to expand his skills by building a documentary.

For me, it was particularly rewarding to hear one of our ladies to express the wish that she had a Bible, so she could begin reading daily. Most Sunday's she spent an hour reading through the scriptures from a Bible borrowed from the pastor and in the days afterwards asking about the meaning of what she read. Her wish was fulfilled on her birthday, 15 May, where I gave her a study Bible of her own.

It is these and a dozen more little things that for me speak of the success of the mission and God's hand in it throughout. But there is much more to do. We visited an island where the well water is as bad as drinking directly from Lake Victoria, both bacteria and viruses. Many of the children have swollen bellies from the sickness caused by water. A number could not stay upright in school because of sickness. And we can help! I have a number of on-going research projects awaiting funding and graduate students to undertake them: these include using a mixed oxidant broth to combat water-born viruses, using solar as a heat source to destroy cryptosporidium and a facultative wetland with papyrus (a cash crop) as wastewater treatment prior to releasing the effluent to the groundwater.

It was our privilege to spend a few short weeks with the Ugandans, to see things through their eyes. And I thank God for each of you and your prayers and your donations and pray God that He will see fit to allow us to continue. If you as a church leader would like to send one or several of your own on a trip in future years, please contact me.

Blessings,

Elder Michael Ottensmann

SDG