



Visiting a Low Impact Development project in Kigali, Rwanda, with government officials.

Greater Edwards Aquifer Alliance promotes water quality in Rwanda

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As Executive Director of the Greater Edwards Aquifer Alliance (GEAA), I spent three weeks in Kigali to work with the Rwanda Environmental Management Authority (REMA) as part of the U.S. Department of State's Community Solutions Program.

This trip was an outgrowth of the collaboration between GEAA and REMA begun in 2015, when Jacques Nsengiyumva, Officer of Environmental Standards and Regulations at REMA came to San Antonio for four months to work with GEAA on research and projects that employ Low Impact Development techniques to

mitigate the impacts of sewage on water quality. GEAA has been exploring the use of Low Impact Development techniques to mitigate the impacts of both source and non-source water pollution since 2009, completing several research projects in collaboration with the University of Texas at San Antonio colleges of Architecture and Civil and Environmental Engineering, the San Antonio River Authority, and the Edwards Aquifer Authority. GEAA's Community Rain Gardens program also works with homeowners' associations within the Edwards Aquifer Recharge Zone to create gardens in public spaces that improve water quality.

During my time in Rwanda, I met with high level government

officials, presented at local universities, and visited several sites where Jacques has created artificial wetlands based on the techniques he studied while working with GEAA. It was a wonderful opportunity to see first-hand how Low Impact Development (LID) techniques have been successfully employed in Rwanda to address problems that are far more challenging than those we face in the United States.

I also meet with the Rwanda Housing Authority and the Department of Urban Planning in the Ministry of Infrastructure to share information related to my experience in planning for growth and the impacts of rapid urbanization. Kigali, at 1.1 million people, seems

to be growing as fast as San Antonio. Construction is everywhere!

What I learned about Rwanda during my visit greatly enhanced my ability to recommend appropriate LID technologies to address specific issues in Kigali and in the rural areas. Of particular interest is the implementation of rain water harvesting – a technique not widely used in Rwanda though particularly well suited to conditions and needs of that country.

I was amazed at how much progress has been made in Rwanda since the genocide in 1994. I was particularly impressed with how clean Kigali and the entire country is. I saw no trash on the streets nor floatables in the rivers. It really brought home the efficacy of simple regulation, such as banning plastic bags and smoking in public areas.

Conversely, the level of security enforced everywhere in Kigali is daunting at first. You have to go through a metal detector and search to get into most buildings, even the grocery store. Armed guards can be seen everywhere in the cities and rural areas. The central government exercises a great deal more control than we are accustomed to in the U.S. Still, people seemed happy, there is growing prosperity, young people are optimistic, and the country seemed very well managed as compared to its neighbors.

I was especially impressed by observing Umuganda, a time when Rwandans do public service work, which takes place from 8:00 am until noon on the last Saturday of each month. All businesses are closed during that time while citizens work on various projects designated by the government. I witnessed work on restoring part of the wetland that runs through Kigali. A lot gets accomplished at no cost to the government.

During time off I visited Rwanda's spectacular Akagera and Volcano game preserves. I had ample opportunity to learn from my guides what is being done in terms of range and game management and reforestation. Both preserves are managed primarily as tourist destinations, much like many of the ranches here in South Texas, though on a much larger scale. I really like that, unlike ranches in Texas, they are not relying primarily on hunting and are making a sincere effort to reintroduce predators to maintain a natural ecosystem.

I attended a lovely July 4th celebration at the U.S. Embassy in Kigali. I was surprised to see that they were serving tacos alongside the burgers and beer in the buffet. July 4th is also Liberations Day for the Rwandans. It is the day that commemorates the end of the genocide. Rather than a solemn occasion, people all over the country take to the streets and nightclubs for a real celebration.

Jacques was a wonderful host who provided opportunities to see the country through jaunts to visit the various project sites. He also provided plenty of opportunities to socialize with his friends and relatives. Kigali's nightlife is very vibrant, with great restaurants and nightclubs featuring excellent live music.

Many buildings and walls in Kigali are decorated with well executed murals, flowering plants are everywhere, and the people wear wonderfully picturesque clothing, especially the women on their colorful kitenge. (And, yes, they really do carry a wide variety of things on their heads!) The breathtaking views from the hillsides and skyscrapers reveal a strikingly beautiful city.

I highly recommend a visit to this beautiful country and the city of Kigali. People are very friendly and I felt absolutely safe being out on

my own. Although most Rwandans speak Kinyarwanda and French, the government has mandated conversion to English as the primary language. I suspect that it is going to take a few years to achieve fluency, but there are plenty of Rwandans who speak English and many more who are willing to give it a try.

The commitment to restoring the environment and preparing for climate change by the people and the government, the entrepreneurial spirit of the people in embracing and using new technology, and how well informed Rwandans are about American politics were among the pleasant surprises that I found there. All in all, I felt really lucky to have been able to spend three weeks in this beautiful country. I am very grateful to the U.S. Department of State and IREX for making these connections between two cities a world apart that are dealing with many of the same issues.



With Rwanda Environmental Management Authority Director General Coletha Ruhamyia.