## Cameroon Travelogue – June 13 – 25, 2007

On Wednesday we left Philadelphia for the villages of Kob and Tudig in Cameroon. Our flights are with Air France through Paris to Douala. In addition to me, the members of the Penn EWB (Engineers without Borders) team are Sarah Casey, Hong Truong and Vince Uhl. Sarah and Hong are Penn



undergraduates, majoring in bioengineering and biochemistry, respectively, and the student leaders of this Penn EWB - Vince and I are here as mentors.

We are on an assessment trip to evaluate the potential for developing a clean. reliable water source for these two villages. We already have a fair understanding of the area through our colleague Godlove Fonjweng, a geologist and Assistant Dean in the College at Penn, who grew up in Kob. The main idea is to survey and map the area, locating potential spring sources (surface water is presumed contaminated) and finding promising locations for standpipes. (Of course, these days the mapping, surveying and locating operations are done using GPS and between us with have three Garmin units.) We also need to assess the quantity and quality of the water flow from each of the springs. Based on all these data, we'll do a preliminary water

system design, locating spring boxes, storage tanks, pipeline routes, etc. And, we need to develop a Memo of Understanding (MOU) with community leaders to ensure that all the important jobs are assigned.

We arrived in Douala about one hour late. Unfortunately, three bags were not delivered: the personal bags of Sarah and Hong and the box addressed to the mayor of Mbengwi. One of these bags also included some of our water testing equipment. Since there is just one Paris-Douala flight per day we had to wait for the bags to arrive the next day.

We stayed in Buea which is surprisingly close to Douala given all of the driving we did – it took several hours to get from the airport to the hotel. Douala is on the coast in the French-speaking Littoral Province. Buea is in the English-speaking Southwest Province. We are headed inland to Kob (a 7 or 8 hr drive from Buea) in the Northwest Province which is the other English-speaking area of Cameroon.

Because of the delay, we had an opportunity to see a part of the country which we would not otherwise have had. We motored through the Limbe region along coast of the Southwest Province – it is quite warm and very humid in this part of Cameroon – apparently one of the rainiest places in Africa. The main industries/products are petroleum, palm oil and bananas. During the day we pass both rubber and banana plantations. Everywhere we encounter open air markets and roadside stands. All major industries have strong ties to both France and China. This is clearly a cash-based

economy with no credit cards, no ATMs, no bills.

We toured the lava field generated fairly recently from Mount Cameroon which is some 16 km away. We then went to the Limbe zoo which is now actually more of a sanctuary – most of the animals are orphans from the wild whose parents were killed for meat. This is the only place we saw wild animals. We had lunch, grilled fresh fish, along the beach in a fishing village. It was grilled over a slow wood fire and frequently basted with an oil/garlic mix. It was very good; we also had cassava, plantain and watermelon. Our final stop was at the Limbe Botanical Garden and then back to the Douala airport.

On the 16<sup>th</sup>, we set out for Bamenda, Mbengwi, and, finally, Kob. We are joined by two stern-looking security people – Elvis and Amos; Christopher is our driver. Along the way we see



plantations consisting mainly of palms, banana and rubber. The vegetation is always lush. Most buildings are one story with corrugated metal roofs; either wood frame with clapboard siding.

Most of the vehicles we encounter are small Toyotas except the Mercedes and other luxury cars driven by the wealthy. Everywhere, there are small motor bikes which are used as trucks or taxis – the

passengers ride behind the driver – there is no side car. After driving for a time in



the francophone region, at 4:30 we enter the Northwest Province; we continuously climb eventually reaching 6000 ft. It is now noticeably cooler and even foggy in spots.

Bamenda is a fairly large city nestled down in a broad valley. The Saturday afternoon traffic near the Bamenda Market is in total gridlock. At 5:15 we arrive at our meeting place in Bamenda and transfer our bags to the two cars: the one Godlove has rented and the one from Roland, the assistant mayor (the mayor does not preside over a town, but rather over a larger unit on the scale of a county). We and leave at 5:56 and the road is now dirt with major ruts.



After arriving at Isaiah's (Godlove's brother) house, we unload the cars and then go off to a community dinner hosted by Atah Samuel, the President of

KOBCUDA (Kob Cultural and Development Association). We met key folks representing KOBCUDA and MQLIFE (can't remember what this stands for – maybe Mbengwi Quality of Life), the principal NGOs party to the water project. After dinner and chatting, we left and the sky was brilliantly clear with an incredible number of stars. At Isaiah's, the 4 of us met, as we would every evening, to develop the agenda for the next day. Our calendar has been shortened because of the day we lost to the luggage.

The front yard of Isaiah's house has a patio area – hard earth floor, a bamboo frame around it and some palm fronds as a roof designed for shade rather than protection from rain. There is



a stream running along the north side of the house. The road out front runs from the northeast (toward Mbengwi) to the southwest. In the front along the south side is a garden with corn; everywhere else in the front yard is covered with mowed grass; mowing is done by the kids using machetes.

Sunday is devoted to meeting with the community and it started with church (Presbyterian) at 9:30.



We were late but Godlove marched us right up the center aisle to a slightly raised area in front of the altar. The singing was great – there were three choirs (one visiting from another parish and two local). We could have taken pictures but did not realize it – so we missed that opportunity but we took many pictures after church. It is apparent that this is a deeply religious community – everything I learned during the week reinforced this conclusion. We also visited the newly opened Health Center – when fully completed and operational, it will have 20 beds, a



clinic and 2-3 residences for doctors and nurses. Two of the choirs joined us for lunch at



Isaiah's and serenaded us.

Our diet in Kob featured lots of fresh fruits (mangos, plums, guava, bananas, watermelon, pineapple) and vegetables.



We had eggs

every morning at breakfast: generally scrambled or an omelet; plain or in a wrap or with bread. When we had avocados they were generally served in the morning. Fresh, ripe pan-fried plantains often accompanied the eggs. Plantains were a part of most meals (we had plantains every which way but loose) and rice was frequently served. One common dish was plantain porridge (more like a stew) with beef or fish. We had spaghetti once or twice served with a spicy red sauce (sauces were generally spicy, but not excessively so); before bed, we often had bananas - they are sweeter than ours; the plums are tarter. We ate mangos en route on almost every



walk. A spinach-like casserole (hucklesuckle greens) called jama jama was often served. On Tuesday, Sarah & Hong made supper: eggplant (garden eggs)/fish casserole, pumpkin, plums, mangos and bananas – all very good. The hot drinks are always hot but the cold drinks are always at room temperature. I tried some palm wine in my cow horn wine glass, and I had lots of carbonated fruit sodas – pineapple and grapefruit being the two best.

Monday was a very busy day – this is our initial look at the springs. Kob and Tudig are set in a valley with springs up on the hillsides. We set out at about 7:05 and climbed a steep grade for the next 90 min, sweating and huffing and puffing. Our group includes one man with a shovel and two with machetes – they are the most important ones in the entire group. We went to the most remote spring first and worked our way back down the hill. The drill at each



spring is to use the shovel to dig away at the spring, and channel the water into a short length of approx 3 in. diameter piece of pipe. We measure the flow rate

with a bucket and a stop watch;



I measure fluoride; Vince measures conductivity, pH (and then back at the house, arsenic); Sarah and Hong also do pH and set up bacteriological tests



(indicators of the possible fecal contamination). Hong records all data including the GPS data which we collect wherever we go. We visited the two Efug springs as well as the one already partially developed at Chusum.



We also visit a fourth spring (cleverly called Spring 4 but known locally as Wumzang). The water quality is uniformly very good at all locations and the flow at Chusum satisfies our safe yield requirement (calculated independently by Vince and me).

Then (about 2 pm) we head off to the market (in the neighboring village of Nyen) which was very crowded and



exciting. This market is held in a different place each day – the traditional calendar has an eight day week and so, every eight days the cycle of locations is repeated. People walk a long distance to



get to the market. We made some purchases, but the big problem turned out to be getting change for our large bills. We met the chief of Nyen (in a bar); we did the appropriate greeting, doing the bow, clapping three times and saying the proper response to his greeting. Jacob helped us bargain and get change in the market.

Godlove and the others have been teaching us some words (especially greetings) in the Meta language. Hong picks it up extremely quickly. Whenever we use our new words, we get a hugely positive and warm reaction. I got a great night's (Monday night) sleep, and woke up to the rooster a bit before 6. One of the boys (Desmond or Nixon) scrubs the floor of the main rooms and the porch each morning – it is a poured concrete floor. The kitchen serves as a storage area for utensils and a buffet table. All the food prep, cooking, and dish washing take place in the back yard or in the side building – the generator is also in the side building as are the cooking surfaces; the potty is an outhouse with a pit over which one squats. There is another smaller side building with two 'showers' - you get a large bucket of (usually, but not always, warm) water and a smaller pail to pour water over yourself.

On Tuesday morning, we plotted our important points on the map and then re-



walked the route to Chusum (Spring 3). After lunch, we headed by car to the palace doing some additional waypoints. The big event of the day is the meeting with the community at the palace. The proceedings at the Palace went well. Because of the rain and local custom, the 2 pm meeting did not start until 3:30 or



so. We made our presentation and received unanimous approval from the 90 or so attendees. (One woman,



Elizabeth, spoke about an area, Bakob, which does not have clean water.) They all signed on to help with the tasks that we had outlined: providing sand, rocks, gravel; doing the labor; housing us, feeding us, providing security, and so forth. We all received traditional bags as gifts. Then four dance troupes performed; we all danced a bit with each one. We began and ended our presentations with the Meta words for Good Afternoon and Thank you, receiving much approval.

Every day we find new information which changes much of what we have done; in some aspects each day represents a start-over. On Wednesday (6/20) morning, we revised the day's agenda. Sarah and Hong will do house-to-house surveys with Thomas Samba



and someone else as interpreters. Vince, Kingsley, Isaiah and I went to locate sites for installing Standpipes 3-6. While in that area, we do the survey at Atah Samuel's house – he is the President of KOBCUDA but he lives most of the time elsewhere near his place of employment in Mbengwi.

We learn that standpipes 3-6 are already connected to a water delivery system –



talk about learning new stuff! This supply (from the Eghem spring) is inadequate especially during the dry season. Then Vince went with Godlove to Mbengwi and the three of us remaining went to check out Bakob – the area Elizabeth talked about at the Palace meeting. Our preliminary assessment is that it would be theoretically possible to bring water from Chusum to this area because of the elevation difference. The Bakob area could certainly use a clean water supply as their drinking water comes exclusively from a surface source and the children regularly get diarrhea. Elizabeth and the other co-wife were making palm oil. They both said they



wanted no more children. I wanted to ask the obvious follow-up question but didn't and was later told that was probably a good idea that I didn't.

Late Wednesday afternoon, we drove to Mbengwi for dinner at Jacob's house in town (in addition to the farmhouse in Kob with the mango tree in the front). Isaiah came with us and the car was crowded. We stopped at the motel where the PGWI (Philadelphia Global Water Initiative) group will be staying next week. Sarah's idea for home-stay when we return in December is a better alternative

Jacob's dinner was excellent. He was chef for a hotel for many years and then for the National Assembly in



Yaounde, the capital, for quite a time. We had a feast with many dishes including ripe plantains, two different (cokicorn and cokibean) corn meal (polenta-ish) rolls; two types of cocoyams, a hot pot containing a number of different vegetables; jama jama (the spinach-like dish made from huckleberry leaves), and, of course, mango. After dinner, we had wine with many toasts and speeches. The toasts end with Sebastian (a neighborhood 15 year-old) pouring the first glass of wine and he is supposed to pour for the oldest person first – the four oldest of us were 62, 63, 66, and 68 – he



came close to the right one. (This episode reminds me that we rarely saw young adult males in Kob – they had largely left for education or to seek their fortune in the towns and cities. We encountered women of all ages but the men were mostly over forty and the vast majority seemed very close to my age.) It rained heavily all evening and the car ride back on the muddy, rough roads was disquieting but we made it.

Thursday, June 21, turns out to be a very important day. The plan is for more walking and climbing and it turned out very successfully. Our plan is to develop two springs (Wumzang and Chusum). We'll use the first to service the area near the palace; Chusum will be used to supply Bakob, the Clinic and the Church and the rest of the village. We will use Chusum to supplement the water presently coming from the Eghem spring to stand pipes 3-6 instead of replacing it. In this way, we would supplement their current supply and help them through the dry season when Eghem dries up.

We mapped out the Wumzang-Palace system; the Chusum-Health Center run; and the Chusum-Bakob route. Timothy, Alex, and Kingsley went with us all on the first two. We split up at the Church



with Hong, Vince and Kingsley going to Eghem. Timothy, Alex, Sarah and I did the Bakob route although Alex left early on.

The Session (like a Vestry) of the Presbyterian Church came to Isaiah's house for Thursday dinner. A few others were there also. There were many



speeches, toasts thanking us, wishing us well and hoping to see us again. They all seemed to be pleasantly surprised at our energy level and ability to climb the steep slopes. Although we did have a few slips and falls – on wet surfaces – we had no injuries of note.

On Friday, we had breakfast at Thomas Samba's house – bread and sardine/oleo mix (tasted like tuna), hard boiled egg, tea or cocoa, peanuts. We headed for Mbengwi and then to Bome Valley (the next valley over from Kob) where we picked up Roland, the assistant mayor,



who led us to the villages and springs served by the Bome water supply. Our purpose here is to scope out the PGWI study area (Godlove and Vince are both members). We visited several catchments, and after visiting the most remote of the springs, the local folks set up an impromptu reception for us – we had mango and pineapple – and lots of speeches and



After that we headed to Roland's for lunch (although it was now about 4 pm). They played the Star Spangled Banner on a computer as we went into the house. The lunch at Roland's consisted of sandwiches which were quite good



and plantain porridge (this time with pork).

We ended the day at Rahel's (Godlove's sister) house who was expecting us for lunch about 4-5 hours earlier. Instead, we had dinner, but only 2 hours after eating lunch. This meal was one of the best on the trip – too bad we were not that hungry: beans and fried ripe plantains, a rice dish with a spicy beef sauce; fruit slices (mango, pineapple, papaya, and guava). It rained like mad during the last half of today's adventure. However, everyone agreed that it has been relatively rain-free – for the rainy season – this week. We did not lose a day to the rain as we had planned. Even on the rainy days, it did not start until we were nearly done for the day – some time after 2 pm.

The houses we saw (Roland's and Rahel's) in Mbengwi were quite nice. Electricity, TV, indoor plumbing (one was pour flush) with a comfortable feeling. Walls generally decorated with calendars (old ones are often left on the wall), family photos and occasionally, animal skins; otherwise, the walls are bare by U.S. standards. Houses are generally not wood frame construction; rather, they are built from stone (there is plenty around here – Kob means rock or stone in Meta) or sun-dried red adobe-



style bricks – the construction is quite sound and the workmanship (stone masonry and brick-laying excellent – bodes well for the construction of our spring protection structures, spring boxes, storage units, etc.)

On Saturday, June 23, we say our goodbyes and are off to Mbengwi to drop some stuff (mostly water testing kits) at Rahel's and then on to Bamenda – we souvenir shopped at a store and at the market. There was even a roadside furniture place with the goods displayed outside. We made some purchases



and left Bamenda about noon arriving at our hotel in Buea at 6:30 pm – that's about as fast as the trip can be made: we never had to wait at any of the police stops along the way.

On Sunday, we met with PGWI to pass along our acquired wisdom of one week and then we walk over to Gilbert and Grace's house – Grace is Godlove's



younger sister. The house was the fanciest one we'd been in and the lunch was great: we had the honeysuckle greens, cocoyams, corn meal roll, rice, a vegetable stew with cassava, a spicy beef dish, a fish dish, fried ripe plantain, cole slaw and fresh fruit (papaya,

watermelon, pineapple).



We stayed until about 3 pm and then walked back to the hotel.

We left about 5 pm. Christopher is again our driver. We got to the airport in good time ( $\sim$ 90 min – the other trips took about 2 hr). Check-in took a long time. The airport shops afforded little or no shopping of interest. No A/C in the Douala airport and they confiscated our water – so we were hot, sweaty and thirsty by the time we got on board. Security gave us a hard time about our wheel (a device for the accurate measurement of distance). The solution was that we were allowed to take it on board but they kept possession of it until

the last moment. We boarded at 10:15 and fortunately the aircraft A/C was working.

Because of the slow security, the plane stayed at the gate for almost an extra hour waiting for people to finish boarding. So, we arrived at CDG in Paris about one hour late. The meal on board was merely OK this time (the meals on the other flights were quite good) – chicken/rice of some sort. Because of construction at CDG it took some time (2 bus rides) to get from terminal 2C where we arrived to the part of Terminal 2E where our departure gate was located. We holed up at a café until it was time to leave. It took some time for boarding to finish at CDG, again because of slow security. We had to pass through security again. The flight was uneventful and we arrived a bit late, Monday afternoon, June 25, a bit after 4 pm. Our luggage arrived safely and the trip through Immigration was easy. Marti met the group as we exited Customs. And then, home.

...John D. Keenan