

## Reflections on My Trip to the Équateur Region, Democratic Republic of the Congo November/December 2009

By Kenneth G. Brill

We arrived in Kinshasa from Chicago after twenty-four continuous hours of traveling. Until we were on the ground, only one thing happened that was out of the ordinary: just before we landed, the flight attendants went through the cabin spraying with what I assumed was an insect killer. (The same thing happened on the return trip.) Interestingly, none of the passengers were up in arms about the health issues involved in ingesting a unknown spray.

Kinshasa is the capital of the Democratic Republic of the Congo (DR Congo or DRC), formerly Zaire and before that the Belgian Congo. The DRC is the size of the eastern United States, east of the Mississippi. The Congo River is enormous. It arcs through the country to empty out into the Atlantic, but waterfalls along the way prevent direct navigation from above Kinshasa to the ocean.

I had gone to the DR Congo with Bryon Miller, whom I have known since graduate school days in Boston when he was at MIT and I was at Harvard. In July 2008 Byron had become the executive director of the Paul Carlson Partnership, an international development organization working in Congo. Based in Chicago, the Partnership is affiliated with the Evangelical Covenant Church and works closely in Congo with the ECC's sister denomination, the CEUM (Communauté Évangélique de l'Ubangi Mongala).

A bit of back-story: Paul Carlson was a medical missionary with the ECC who worked in Congo in the early 1960s. He was killed in the Simba rebellion in 1964 after taking his family out of the country to safety and then returning to keep working. The organization was founded in 1966 by family members and friends, emphasizing both medical work and agricultural development. By the time of our trip, Byron had led the organization to expand its development work, focusing on creating income sources for the subsistence farmers of the Ubangi region.

The Kinshasa airport reminded me of Boston when I first went to Harvard in 1965. We got off on the tarmac and walked to the reception building. There were no jet bridges and very basic amenities. The three lines for immigration each had about equal numbers of diplomats, tourists, and nationals. We were met by an army of greeters from the CEUM. Byron was already well loved, although he had been in this job for only eighteen months and this was just his fourth trip. The Congolese have a greeting of genuine friendship: touching foreheads three times, first on the right, then on the left and then in the middle. Done correctly, it is very intimate and endearing.

Many officials had to verify our passports, visas, and health papers. One set of inspectors looked at our health records to be sure we'd been vaccinated for yellow fever, another checked our visas and passports. Finally we got through the immigration line and to the outside, where we found an army of church friends ready to load our nine bags and seven trunks into the two vehicles. The trunks contained supplies and parts for many purposes here in Congo. One contained an inkjet printer, which was cheaper to buy in the U.S. and carry to Congo than to buy there. Another trunk contained medical supplies, one a safe, and the rest odds and ends for different people and programs. The trunks had traveled with us from Chicago on the Boeing plane to Brussels and then to Kinshasa. The trunks would now be air freighted to Gemena (where the CEUM is headquartered). While cumbersome, taking trunks is much faster and cheaper than shipping by ocean-going containers, which can take up to six months to arrive

In Congo it is very important to have someone who knows the ropes. That is why such a large group came to meet us, including drivers, several pastors, and Texa Dembele. Texa is Paul Carlson's Congo country manager and makes many of the logistical arrangements, including in this case getting the trunks through customs and to the cars. It was amazing to see how ubiquitous the cell phone was there. There was one stuck in Texa's ear much of the time when we were traveling.

Finally we got everything loaded and were driven about fifteen miles to a compound in the city run by a consortium of missionaries. It is a place they go to have a primitive but nice space to stay during sabbaticals or recreation trips from their posts, without the expense of hotels. There are about a dozen bungalows with a central eating area. The cost is \$50 per night and includes meals. I considered trying to take a shower, but fell into bed when I found the water was cold. The next day I recorded my initial observations in a notebook:

Woke up this morning for my first day in Congo. I think it is now 7:45 A.M. (Although we have traveled many thousands of miles, we have not changed that many time zones. After we traveled west to east going to Brussels, we then came north to south to Kinshasa, so we are in the same time zone as Paris.). The sky is overcast and it might rain. I am outside in a plastic deck chair. Not much is stirring in the compound. Someone is doing gardening with a machete. He is digging up the ground. He was at this yesterday as well. I see birds circling in the sky, so there must be many insects they are chasing. The compound we are in is gated, which locks out the noise and squalor of the neighborhood. Inside, the grounds are green with plants. I can see red, yellow, and white flowers. Several trees are blossoming. The buildings themselves have seen far better days. They have metal roofs and are white stucco with many windows. There must be about ten bungalows, each with four sleeping rooms. Meals are served in a common room. My room has two single beds with an adjoining room with a toilet, shower stall, and sink. The water is variable in the morning. I learned to take my shower at night when there was water pressure. It was even hot. I swatted mosquitoes last night. I hope there is not a health problem. I am taking my malaria pills. On the plane I learned these pills go better with food, otherwise they sit in my stomach and bubble. Sleeping is hard. I sleep, but it is not a deep, restful sleep. Much noise from the televisions and radios of the other residents. The ceiling fan groans all night long but I am glad to have it, as it would be hot otherwise. The temperature is warm but not uncomfortable. I would say it is in the high eighties. The sun is hot, but there is a lot of cloud cover. It seems to rain every several days for varying lengths of time.

We had fresh bread (a long baguette) with margarine and jam for breakfast. We also had a fried egg. I had brought Starbucks' instant decaf coffee with me. This product became available just the day before we left Chicago. It was as delicious as fresh brewed. What a life—to be so far from home and enjoy good coffee!

Byron went to the CEUM bank to learn about electronically transferring money up to his PCP operations in Gemena. He has been sending a courier to physically transport money to support the hospitals and other services. Sending a courier costs \$500 for airfare and the plane only flies once a week, so the person is stuck in Gemena for seven days. There is also a holdup risk at either end. But electronic transfer would require a branch office to receive the money in Gemena and disburse it. As I would subsequently learn, Gemena is a very primitive place, and the bank branch office is literally a hole in the wall. That too presents a risk of hold-up. Byron did learn that cash balances in accounts can be accessed electronically. Setting this up will be a great simplification.

Dollars are the medium of commerce because the Congo currency inflates. The largest bill denomination is so small in dollars that it takes a whole stack of about half an inch to amount to \$100. While dollars are the medium of commerce, the bills themselves must be perfect and there is considerable counterfeiting. The bills I brought were old and most were not accepted by people I wanted to buy things from. Oops! Not having cash is a major problem—there are no ATMs!

The street on which the bank was located is very nondescript, considering we were probably in or near the central business district. I believe I saw several embassies along this street (French, U.S., Japan, and other African countries). While Byron was in the bank we were parked on the street, and I stayed in the car to watch the street scene. Vehicles were parked on both sides of the road (many were pretty grungy—the roads are tough on cars and most vehicles are pretty beaten up). Traffic was one-way and slow, weaving in and out around obstacles. The paving was irregular and the sidewalk had many cracks and potholes. There was steady foot traffic, both in the street and on the sidewalk. I saw many more men than women. Many of the men were dressed in suits and had on ties. The colors were bright and even stunning. Many of the women were wearing heels, and the heels were color coordinated to match their long dresses, which went to their ankles. The colors were bright and often in striking patterns. The pedestrian traffic pattern was of people walking up and down the street. Sometimes people came out as if on a coffee break, but I saw no one smoking.

I watched a woman sell sandwiches along the sidewalk for over an hour. She sat on a stool and had a cardboard box of baguettes and other breads in front of her. She served some bread with just margarine or butter. On some sandwiches she added a filling that I couldn't see. In the time I watched her, she went through 6 dozen eggs and sent an assistant out for more. I couldn't see her cooking means, but she must have had a small stove on the ground. I could see her breaking eggs into something and adding oil. This must have been the filling. She had a steady stream of buyers—many waited for her to make them what they wanted. It seemed like the price was in the range of about fifty cents to a dollar. She was located just outside an office, and I watched an exterior window open and a hand reach out to get a sandwich. The wall behind her was faintly smudged with grime up to the top of her head, which seemed to confirm that this space on the sidewalk was a regular spot for her. She had lots of helpers who seemed to come and go with no order or status. It started raining and someone brought her a battered umbrella. She was joined by a second woman who came balancing a load of bananas on her head. One of the men helped her take the bananas down from her head. I didn't see anyone buy a banana in the hour I watched, but there was extensive gossip and conviviality. All the while, people were walking up and down the sidewalk, the elegant ladies gingerly stepping over the broken sidewalk in their color-coordinated high heels. Such contrasts!

Back to the missionary compound for a lunch of rice and fish—more than I could eat. Over time I got tired of what was basically the same meal every meal. I took Byron's team out for a restaurant meal as a special treat. Entrees were in the \$10 to \$15 range with steak being the most expensive item. Interestingly, several ordered pizza, showing the universal appeal of that Italian dish. Fanta (a fizzy, orange-flavored drink also available in the U.S.) is a very common choice for something to drink.

We got up early the next morning to fly to Gemena. Our luggage and trunks had been taken to the airport the preceding day in advance of our flight on Wednesday. All we had Tuesday night were our overnight things. I worked that night to get all my batteries charged, as electricity is only available at night in Gemena. On the way to the airport I shot a number of pictures out the window of the car. I had been strongly cautioned against taking photos, because the security people get freaky. I didn't

understand that this was a serious concern, so I went ahead, surreptitiously. At the airport entrance I shot a final picture, and the entire group freaked out at the risk I was taking.

Getting into the departure area took a long time. Fortunately, we had an entourage to get us through officialdom. Once we were through I checked my papers, and guess whose name was on my ticket? Kent Bradley! So much for the officials' competence in checking the name on my ticket against the name on my passport. I was told not to worry, and this consistently proved to be correct advice. People need to *appear* to be competent, as opposed to *being* competent. As I would learn, the need to check papers is just a chance for people in authority to extort small bribes. We would subsequently encounter this with a policeman who claimed our vehicle's front turning light was damaged and not drivable. There were probably other examples where I didn't directly witness the handing over of cash. (While, as an American, I take umbrage at paying a bribe for a service that I feel should be free, I need to remember that different cultures have different norms. Having lived many years in the Boston area, I know how the Brahmins of Beacon Hill despised the Irish immigrants, and how the Irish, when they finally came to power, have gotten back.)

The DR Congo still suffers from the brutality of King Leopold of Belgium, who brutally ruled the area with an unmatched severity that was embarrassing even to the other colonial powers with African colonies. For example, Leopold had hands and feet cut off to ensure adherence to his rules and threats. The Bible says this kind of bad treatment and the response to it will ripple into the seventh generation—and we are not there yet.

It started to really rain as we waited in the airport departure lounge. The lounge was only partially enclosed, and water started flowing into the floor of the waiting room. From what I could tell, the drains just couldn't handle the volume of rain and back-flowed into the waiting area. There were two women trying to move the water around with mops. Everyone just got out of the way. Out on the tarmac there were two military transport planes. One was a turbo prop and it had no identification, which I took to mean it was military. It took off while we were waiting. The second was a UN plane.

The UN has had a large presence in the Congo since the sixties, with 49 nations currently providing nearly 20,600 uniformed troops (plus local and international civilian personnel). Last spring there was a flurry of press reports in the United States about the poor performance of UN peacekeeping troops and how they were raping and pillaging the population they were supposed to be protecting. I vaguely remember reading about this, but now I suddenly connected these reports with personally being where they originated!

Despite the rain, we efficiently got onto our McDonnell Douglas MD 80. Everybody was searched again and our bags were again inspected, everything done by hand. We loaded into the plane thru the tail. The plane was comfortable and seemed to be well maintained. We were served a sandwich with cheese and lettuce. I was most of the way through eating when Byron told me that eating lettuce was problematic as it could be contaminated unless it had been properly washed. Oops. Interesting aside: Everything I drank was bottled. Taking a shower always means some water gets in my mouth. Would this be important? Stay tuned, as I subsequently got sick!

The flight was smooth and polished. When we got to Gemena there were two other large planes already on the ground. There were soldiers all over the field, though guns were not visible. Again we were met by a sea of church people. The head knocking was inspiring, as Byron renewed his friendships with people he had not seen in months. President Mossai Sanguma of the CEUM led the group that met us.

Several months prior to our arrival in Gemena, fighting had broken out between two tribes in Dongo, about 150 km from Gemena, over fishing rights. We had thought this fighting was a minor dustup, so we came anyway, although several members of the local church had been killed. Dongo and Gemena are both in the Équateur region, which was the power base for Joseph Mobutu, who seized power and became a dictator back in the late sixties. When he died in 1997 an extended period of instability and civil war began, during which 5.4 million were killed and two million were displaced. Things settled down in much of the country in 2003, with the UN peacekeeping forces intended to maintain stability. The current, democratically elected president comes from eastern Congo; Équateur is not only Mobutu's old territory but also the "turf" of Pres. Joseph Kabila's political rival Jean-Pierre Bemba. Nonetheless, Équateur has been among the most stable parts of the country since 2003, with the continued violence found primarily on the eastern and northeastern edges of the country. Apparently the current border clash in Équateur had freaked out the political establishment, because President Kabila traveled to Gemena for the first time in his presidency, to see what might be done to help the region. He and his entourage, including many troops and security forces, were leaving as we arrived. President Sanguma and the heads of the two other major denominations in Équateur (Catholic and Free Church) had been invited to the capital by Kabila to discuss what was needed in the region.

From the airport in Gemena it was about a fifteen-minute drive to the CEUM campus in Bokozongo. The roads were dirt and rugged—much worse here than in the capital. The driver had to go very slowly to detour around the worst of the ruts. The campus was about a hundred acres or so, with many single story buildings, including the local church and several schools. I subsequently heard drumming and singing one night that lasted several hours. Byron said it was likely a choir practicing for Sunday, when there could be as many as four choirs singing.

There was a community water source, and women and children came all day long to get water in pots they carried on their heads. I checked out the generator, which was run each night for three hours, providing electricity and lights for the entire area. Because of Kabila's visit to Équateur, troops had been housed on the CEUM campus and the military had provided the fuel to run the generator all night long. It was surprising to find soldiers in various states of relaxing or being on duty with their guns. There were several sentry points I stumbled into while searching for the generator. None of the military seemed very serious about soldiering. In fact, one of the problems the Congolese army has suffered from is soldiers fleeing in battle.

On the day we arrived there was a bit of agitation among the military. We later learned that a soldier had boarded the flight returning to the capital carrying his gun, in violation of rules and etiquette. Since the commander-in-chief of the Congo military was on the plane, it was quickly assumed that an assassination attempt was in process. A commander seated near the soldier overpowered him and had him taken off the plane. Apparently the soldier just wanted to go back to Kinshasa. The Congo, like many African countries, has suffered many coups and other brutalities, and people with guns—whether with the UN, the police or the DR Congo army, are not to be trusted.

We stayed in President Sanguma's personal home, which was a single story with three bedrooms. Only one of his six children are still living at home. Cooking was done outside over an open fire. His wife, Sabuli, welcomed us in his absence and made us feel comfortable. (Sanguma had left for Kinshasa on the return flight that day.) We ate our meals around her table, which became a focal point for conversation. For a time in the early 2000s the Sanguma family had lived in Pasadena, California, where Pres. Sanguma had completed his doctor of divinity degree. On my own trip, just prior to leaving the U.S. I had met the

Sangumas' son, Nyenemo, so I was able to report on him to his mother. In addition, I had lived very near to Pasadena, and these happenstances helped to jump-start a new friendship.

I met Precieux, the Sangumas' adopted three-year-old son. Precieux came to the Sangumas as an infant who had been abandoned. After adopting him, Sabuli Sanguma started an orphanage that has rapidly grown to more than forty children. The girls are housed in one large room and the boys in another. Most activity occurs outdoors. Finding money for the kids to go to school is a big issue. Some of the Sangumas' food goes to the orphanage, which is virtually in their backyard.

Gemena appears to be a small village of perhaps a 1,000 people, but in reality it may have half a million in the immediate area. There are two unpaved streets lined with one-room shops, perhaps fifty in total. Cell phone providers are well represented. Vodacom is most common, but there were two others as well. Byron was able to call home and receive calls. He was also able to connect to the internet, though speeds and quality were low. I saw bottled water being sold, and what I assumed to be gasoline sold by the liter. Much of the rest that I observed was too complex or incomplete to figure out from our passing Toyota Land Cruiser.

### **Karawa and Loko**

We traveled from Gemena first to Karawa and then on to Loko, a distance of less than two hundred miles. The morning we left I was told it would be a ten-day trip. I thought the person suggesting this was joking. He wasn't in the least. The pickup truck that took us was about a year old and already well battered. I was fortunate to sit in the front, where the air conditioning hit us first. Byron and Texa sat in the back seat of the crew cab. The driver was expert in getting through what seemed like impossible road conditions. We only got stuck once, and mainly because it had just rained and the road had turned to mud. We got out of the mud very ingeniously after three tries. We also had a full load in the bed of the pickup, consisting of freight and people who were going all or part of the way to our destination. There is no mail service in Équateur, so we were picking up and delivery mail. One piece of freight consisted of a goat.

Vehicles must be tough to survive the terrible Congo roads and the mud during the rainy season. During our travels of almost 300 miles, I saw only ten other vehicles, of which five were the Toyota Land Cruisers of other NGOs and five were overloaded trucks transporting cargo. All of the trucks were more than thirty years and perhaps fifty years old. Several were broken down and being repaired in the middle of the road. I have subsequently learned that the last major road maintenance before the recent work by the Catholic Development Agency around Gemena was done in the late sixties during Lyndon Johnson's presidency.

I saw no animals or carts being used to carry crops. Transport is accomplished by people walking and carrying things on their heads or using bicycles as their beasts of burdens. Without economical bulk transport to markets, farming can never be more than subsistence, despite an abundance of land and rain. The ground appears rich and is covered by grasses that go on as far as the eye can see. The land is well drained and mostly flat, with very few rolling hills and some trees.

Among the trees is a type of date palm that produces a nut that is high in oil that can be crushed to produce a fuel. Harvesting these nuts and processing them to replace imported gasoline or diesel fuel appears to be a business opportunity that would inject money into the local economy. The problem would be reaching sufficient scale and having a machine to crush the nuts and press the husk and nut

meat for the oil. We saw a family in the forest who had harvested fallen husks and were crushing them by a primitive process using an old log as a base.

One of the things I have been musing about after returning to the U.S. is whether to recommend a shift from diesel engines back to steam engines for stationary power. Steam engines could run directly off of the palm oil, whereas the raw oil must be treated with chemicals before it can run in a diesel engine. Moreover, the diesel engine must be started on real diesel fuel and then switched to the treated palm oil after the engine is running. The process must be reversed by moving back to diesel fuel before shutting the engine off. Failure to do this correctly, or running out of fuel while running on palm oil, will result in fuel pump and injector damage. Steam engines would seem to be much simpler and more tolerant. This is one of several examples where technologies a hundred or more years old might be more appropriate and more maintainable in the Congo than what is commonly used in the U.S.

The useful life of a Toyota Land Cruiser on the roads we traveled is about 40,000 miles. Since the capital cost of a Land Cruiser is about \$50,000, just the capital cost per mile is more than a dollar. Diesel fuel is \$10 per gallon and is often contaminated with water or particulates. I saw about ten broken-down diesel engines, and every one was missing the fuel injector pump. I take this to mean that engines fail primarily because of fuel contamination damaging the pumps. This could be solved easily with pre-filters. Another observation is that fuel lines were poorly made and subject to air leaks, which would cause the engine to fail. An investment in several hundred feet of hose stock for making fuel lines, plus a swaging tool and fittings and a pre-filtering system on each engine, would make a significant difference in keeping engines running. This would be a small investment relative to the cost of replacing just one fuel injector pump.

Along our drive I saw village after village in a sprawl going on for mile after mile. Houses are single-room huts made of mud and sticks with peaked roofs of thatch. Cooking is all done outdoors. The huts are packed one next to the other. There is no electricity anywhere, so the only light at night comes from cooking fires. Interestingly, I did hear radios several times. I wondered where the batteries came from and where the stations were. I saw hand water pumps in some villages, but I don't know if they were working. The one pump I could examine in Loko did not work.

Virtually every woman of child-bearing age was robustly pregnant, always with a child on her back and often with one in her arms. Men were most often seen in the shade. Kids played in front of huts. We were stared at as we passed. Animals were untethered and roamed freely. Many times I was sure our driver had killed a dog, pig, goat or chicken that had failed to get out of our way fast enough. Apparently there are not predators that would eat the animals. The one constant in every village was a sign plastered on the wall of a building. I learned the sign was about AIDs prevention. AIDs hasn't reached this area in epidemic proportions yet, perhaps because travel is so difficult.

I saw many chickens and some pigs and fewer goats. No cows. Many Africans are lactose intolerant, which is very unfortunate, as there are vast supplies of grass and vegetation to feed milk producing animals like goats and cows. Fish farming was prevalent in the past, but the ponds have fallen into disuse. Reportedly, the fish were eaten in the worst times and the people have no way to re-stock the ponds now.

Everywhere there were people walking. Most were women carrying things on their heads. I tried to pick up one of these loads and couldn't. It was in excess of fifty pounds. Where people were going I couldn't determine. Just as many seemed to be going in each direction, all carrying loads, so it was unclear what the purposes were.

Two-wheeled conveyances like bikes and motorcycles work best on the roads because they can maneuver around the potholes. While we saw some heavily loaded bicycles (perhaps 15 percent of the total traffic), we saw no motorcycles. The loads on the bikes included goats, chickens, fire wood, and bulk beans, nuts, and other farm products. I subsequently learned that it is not uncommon for people to walk six miles or more for water each day.

Every stream along the road had boys swimming and women washing clothing. I must admit, the water looked very refreshing after the dust and jarring of the road. I saw evidence of schools with kids dressed in uniforms and carrying books and homework. A major effort has been made to educate the children. How this works I don't know. The educational part of the CEUM includes over four hundred schools, where the teachers are paid by the government and the CEUM provides oversight.

Considering that daylight lasts about twelve hours, not much time is left for school or work after the daily tasks of gathering water and fire wood and getting to and from work. For people working in Kawara or Loko, getting back and forth to home consumes a significant portion of every day – I had people tell me they walked six miles in each direction.

It struck me that these people who were so “poor” could fluently speak multiple languages and all I knew was English. French is the language of commerce and government. Lingala is the language of the region.

Despite many evidences of a non-cash economy, virtually everyone I saw was well clothed in clean things—for boys and men tee shirts and pants, and for girls and women long flowing, often very bright dresses. Most had flip-flop-type shoes. Where these came from and how they got so widely distributed so far out into rural areas hundreds of miles from any town, I don't know. Based on the logos and relative dates on the tee shirts, I suspect the clothes were used and had been sent as gifts from developed countries. However, the sheer volume of used clothing that has been distributed is enormous and far more than a single church or group of churches could manage. Like many things on my trip, the history of where and how these clothes came to be distributed is a mystery.

Karawa is a missionary station about forty miles from Gemena. It is laid out like a campus of a rural college, with large lawn expanses and colonial open-air buildings. When the missionaries were here before the civil wars of 1996-2003, this was a prosperous place, mainly as a result of the money the missionaries brought with them and spent here. There is an old landing strip for small planes, and in the heyday there were two pilots and two planes to take missionaries out into the field. The station includes a 100-bed hospital, a church, missionary housing, guest houses, and several large schools for hundreds of kids. Today things are in a state of accelerating decay, as there has been little money since 1996 and everything has been cut back.

How do you run a 100-bed hospital without electricity? Or without clean running water? USAID and its German counterpart funded the development of the Zulu hydroelectric station back in the early 1980's. Zulu's original concept was well thought out, and the “bones” are still good. The dam is located six miles from the station and has two small water turbines, one with an 80 kW and the other a 120kW generator. Even in the dry season there is sufficient water to run the smaller generator. Yet Zulu has not produced electricity for about two years because the turbines which drive the generators need major repair and the medium voltage power cable, which takes the electricity back to the station, has so many shorts it is not reliable. The dam itself is leaking water and needs relatively minor repair. Efforts are underway to

diagnose what repairs are needed, but the costs are in the hundreds of thousands of dollars and thus very discouraging. While the hospital has a small generator, it is run only in emergencies. Fuel costs \$10 per gallon, and there has been no funding source to pay for it. This means that at night the staff work by feel or by moonlight.

Clean water for the station and hospital used to come from springs located at Mbudi. Again, this was a well-thought-out design thirty years ago. The collection pipes go back into the mountain springs to prevent contamination. The water flows to a holding tank where sand settles out. The water then is piped directly to a pump that is turned by a wooden water wheel. Originally there were redundant pumps and water wheels. Only one is now running. The overflow from the springs is collected into a small pond and then routed to the water wheels via a thirty-inch metal culvert.

When I was there, the pump had just been restarted for the first time in five months, and clean water was flowing for three miles to a large concrete holding tank on a hill above the station, which provided the pressure to distribute water to the buildings. The repairs had been accomplished for the cost of two bags of cement, a leather piston seal, and the time and talent of someone with technical knowledge. The cement was used to seal leaks in the metal flue taking water from the pond to the water wheel. One bag was sufficient to line all but the final four feet of the flue. The cement was not a permanent solution, but it got sufficient water to the wheel so it would turn. The other step was to repair the leathers on the piston of the pump. While the pump was now working, water from leaks was spraying in many places, the mechanical drive system was totally out of alignment, and discharged water from the wheel was undermining the foundation wall on which the water wheel rested.

The wheel was twelve feet or so in diameter and was turning at 2 or 3 rpm. It drove the rear-end axle out of a car or truck, which in turn drove a pulley system that geared the speed up to drive the pump. The pulleys were poorly placed on the shaft relative to where the bearings were located for shaft support, and were badly misaligned; a future problem could be anticipated as the bearings wore. Water flow to the hospital could be increased considerably if the wheel turned faster, if the mechanical drive system were geared higher, or if the leaks were fixed. But, after five months, water was again flowing to the holding tank! The holding tank itself was leaking and needed a lining. We had to leave before I learned if water actually had gotten to the hospital. This is a typical problem, as communication is difficult, language differences require interpreters, and nothing is ever simple. The people are good-hearted and want to be helpful, yet technical knowledge is limited. That is why a skilled Congolese layperson could make so much difference in one day.

I don't know where water came from for the station while the pump was out. I know that there was a water barrel in our guest house bathroom from which we dipped water to bathe and to flush the toilet. Originally, I could see that water had been collected off the roof. This requires a metal roof and gutters, a clean cistern, and a means for getting water out of the cistern. The guest house had had such a system, which had fallen into disrepair. The metal gutters were rotted out or had sections missing. Downspouts leading to the cisterns were missing. I saw our cook drawing water out of the cistern. It came up blackish with leaves and debris. I don't know what happened to this water, as what we drank was clear. Was it filtered? I don't know. I do know that Byron and I both developed diarrhea.

I didn't regain my health and vitality for four weeks after returning to the US. After feeling really punk for two weeks, I finally went to the hospital. They collected blood and the blood analysis got to the Center for Disease Control in Atlanta. I eventually got an insistent call asking for details about the yellow fever they found in my blood, which apparently was a reaction to my vaccination. Of the seven Congolese

people I got to know well, three have since had malaria in the five months I have been back in the US. This doesn't mean the others haven't had malaria, I just don't won't know until I see them next. Note: bed nets don't provide a 24-hour answer, as mosquitoes bite during the day. How can a society move forward when malaria is so prevalent?

A heart-rending thing happened when I was asked to visit the classroom of about twenty deaf children, who had their school in the chapel of the hospital. Ordinarily this would have been Byron's job, but he was busy and I was glad to help out. We were hampered by my lack of language, but the spirit of what I was shown was clear. Most of these kids were orphans, because their families had abandoned them when their deafness became apparent. I was told there are at least a hundred more kids in the region who also should be in the school. The teacher was an earnest man who appealed to me to help him help the kids. He told me he had had just three months of training in signing before the civil wars, and he could only take the children as far as he knew. Moreover, what he was taught had been in English and these kids needed to be fluent in French or Lingala if they were to converse with their community. He appealed to me to find money for him to go for advanced training. This seemed more than I could manage, but I agreed to try. What I determined was to find someone who would commit to finding sign language materials in French on DVD or other format. I thought that we could easily get the funding to buy DVDs and a player if we had a specific plan of attack.

After the rough roads out to Loko, I felt the road back to Gemena was a virtual highway. I hadn't felt this way on the way out, as the road seemed pretty rough, but I had learned what rough really was. When we arrived back, we encountered many more soldiers and learned that the minor skirmishes had turned into real fighting. The rebels were within forty miles of Gemena. The UN and the Congolese military were bringing in ten flights a day of supplies and more troops. When we went to the airport, the field was much more military-like. We subsequently encountered many conflicting stories as to what was happening. One story was that the rebels were led by a charismatic woman who had convinced her followers they were impervious to bullets (this would be consistent with voodoo-like thinking prevalent in the more rural areas). Reportedly, her followers had fled when she was shot and bleeding. Another story was the Congo troops fled as soon as the first shot was fired. We did get direct confirmation that the fighting was real because Free Church doctors had treated wounded rebels. Since the rebels were attempting to reach Gemena, people were confronted with how to protect themselves and their families. Not much was known about the size of the invading forces and whether they were supported by outside powers. There was not much confidence that the UN and Congo troops would be effective defenders. Many of those who could, took their families into the woods as they had done previously to survive during the civil wars. One man took his family of six into the woods, then became ill. He died because his family could not get him back in time for medical attention. Sabuli moved the girl orphans to Karawa for safety. It takes a lot to take only what you can carry and leave everything else, knowing it likely won't be there when and if you return. I spoke with two Congolese, one forty and one twenty six, and asked them how many times in their lives they had been confronted with such personal uncertainty. The older person, a man, said ten times, and the younger, a woman, said four. As a westerner, I can't conceive of running for my life in a civil war even once, let alone multiple times.

## **Summary**

Despite being a mineral-rich country, Gross National Product per person is less today than it was in 1950. The missionaries did wonderful work, but they failed to develop a self-sufficient economy among the people of the CEUM that would survive their departure. Without means of transporting farm products to market, Équateur is stuck in what Jeremy Sachs calls extreme poverty: extreme poverty occurs when people are so far down into subsistence that they can't reach the first rung of the economic ladder. After

returning to the U.S., I read a lot about economic development. Turns out that the world has spent a trillion dollars on economic development since the second world war, but extremely little is known about what has worked successfully and why, versus what has not. Generally, returns on previous development investments have been disappointing.

My reading found that Africa has been handicapped by two factors that go far in explaining a lack of successful economic development. The first is as simple as location. Virtually all countries that have developed successfully are on coasts or have access to easy river transportation. This is true of China today, where the spectacular development has occurred along the coasts and not inland. While the DR Congo has access to the Atlantic Ocean, it is via a narrow strip of land which includes the outflow of the Congo River. Virtually all of the DR Congo is inland, as are most African countries. This is a huge developmental handicap because it makes transportation expensive, as already has been highlighted in my descriptions of the roads.

Another factor is maternal and child health. Research has now repeatedly shown that birth rates in rural areas are directly related to expectations of infant mortality. In areas with high economic uncertainty and high infant mortality, child bearing is frequent and tends to more than overshoot replacement numbers. As a result, populations rise, and what few belongings a family may have need to be shared among more and more people. As the education of girls increase and as real incomes rise, child mortality drops and women have fewer children and have them later in life. This happens independently of efforts to encourage birth control.

Malaria is another insidious health problem. We now know that malaria is transferred by a specific species of mosquito. But the bigger question is, why is malaria a more prevalent problem in Africa than in other areas of the world? It turns out that there is an incubation period within the mosquito before which it can spread the disease. This incubation period is typically fourteen days, but before this time is up, most mosquitoes die a natural death. In Africa, due to higher average temperatures, the incubation period occurs in fewer than fourteen days, so significantly more mosquitoes live to infect victims. Byron and I took malarone at a cost of a dollar a day and didn't suffer malaria (although we did get diarrhea from what I think was bad water and our working effectiveness was significantly reduced). Sarah Thontwa did get malaria and she was in the very same environment I was in, so I probably would have gotten it too if I hadn't been taking the pills. She couldn't afford even the twenty-cents-per-day version of malaria pills. (The average equivalent income for Congolese is one dollar per day, so you can see why twenty cents is an impossible extravagance for most people). She was sick for several weeks, even though she had access to recovery medicines that others do not.

How can a country build a future with severe societal uncertainty and outright fear? Civil war has brought untold suffering and physical destruction. The CEUM was economically strong when the missionaries were present. But the medical and other infrastructure they so caringly built is now unsustainable and severely decayed. What I have reported in this narrative is just the tip of an iceberg of many needs.

As president of the Paul Carlson Partnership, Byron Miller has shifted PCP from a model of providing grants with a main emphasis on healthcare to a model of business development, because only with a rising standard of living will infant mortality rates and other health indicators improve. Because of who he is, Byron will re-energize PCP and over time will bring more resources to bear than the Covenant Church could on its own. The CEUM and PCP together have credibility in the eyes of donor organizations. What are the philosophical and theological underpinnings of this collaboration? How does this fit into

the emerging research on how rural economic development works best? How could large-scale projects be run using third-party donor money? What principles would be important in deciding what types of projects to be involved with?

While explicitly moving toward economic development seems a right strategic direction for PCP, on a more human scale I am left with questions concerning the U.S. Covenant Church's moral obligations to the CEUM. Obviously, the sheer magnitude of the Congo's problems are far beyond the scope of what any one institution might be able to address. However, the missionaries overbuilt a structure in Équateur that was financially feasible only with giving from the U.S. In the current situation, what are the responsibilities of the Covenant Church to the CEUM? Is it sufficient to have withdrawn for the safety of the missionaries and to have then moved on to new missionary fields? Isn't there an obligation to do something more to help the CEUM regain financial stability? I don't know that there are "right" answers to this complex historical relationship going back to 1937. I can only raise troubling questions for which there may be no good or short-term answers.