



INNOVATIONS FOR SUCCESSFUL SOCIETIES

CLEANING THE CIVIL SERVICE PAYROLL: POST-CONFLICT LIBERIA, 2008 - 2011

SYNOPSIS

Shadi Baki and Alfred Drosaye confronted a civil service in disarray in 2008, following a devastating 14-year civil war during which 250,000 people were killed, Liberia's infrastructure was all but destroyed and government services collapsed. Despite the disintegration of the government, the civil service payroll more than doubled to 44,000 from 20,000 before the war, saddling the government with an unaffordable wage bill. Furthermore, the government had little sense of who was actually on the payroll and who should have been on the payroll. Rebel groups and interim governments put their partisans on the payroll even though they were unqualified or performed no state function. An unknown number of civil servants died or fled during the war but remained on the payroll. After delays due to an ineffective transitional government and moderately successful but scattered attempts to clean the payroll, Baki and Drosaye at Liberia's Civil Service Agency set out in 2008 to clean the payroll of ghost workers, establish a centralized, automated civil service personnel database, and issue biometric identification cards to all civil servants. Cleaning the payroll would bring order to the civil service, save the government money and facilitate pay and pension reforms and new training initiatives. This case chronicles Liberia's successful effort to clean up its payroll following a protracted civil war and lay the foundation for organized civil service management.

Jonathan Friedman drafted this case study on the basis of interviews conducted in Monrovia, Liberia during December 2010 and on the basis of interviews conducted by Summer Lopez in Monrovia, Liberia during June 2008. Case published October 2011.

INTRODUCTION

William C. Allen, director general of the Civil Service Agency (CSA), reflected on his time as minister of information in Liberia's transitional government from 2003 to 2005. "On any given day I would come into the office, I would see about 60 persons," he recalled. "I was in my office one day and I heard this noise and a drove of

people in the hallway. I said, 'What is going on?' They said, 'Today is payday.' I went out there and I tell you I saw faces and people that I had never seen in my life. They had occupied the entire stairwell. I said, 'Gee, if I had all these people working every day at least I could do something for this country.' So right there I knew I had a problem."

A fragile peace began to emerge in Liberia during the summer of 2003 as President Charles Taylor resigned in advance of a Comprehensive Peace Accord negotiated between the various rebel groups in Accra, Ghana. Roughly 250,000 Liberians were killed during the 14-year civil war, during which government services broke down and an entire generation of Liberians grew up without access to education.

Liberia's civil service was in disarray. Despite the government's collapse, the civil service payroll during the war actually grew from a prewar level of 20,000 in 1980 to 44,000 in 2003, and an additional 5,000 were receiving pension benefits. Groups that controlled the Ministry of Finance at different intervals of the war—both government and rebel groups—rewarded loyal fighters with positions in the civil service but did not hire them through official channels. Additionally, an unknown number of civil servants died or fled the country during the war but were not removed from the civil service registry. Others took their places in government, or at least their paychecks, but were not officially added to the payroll. As a result, the government had little knowledge of who actually worked in its service and who collected its pay. Other reforms to the civil service, including creating digital personnel files and introducing pay and pension reforms, were predicated on successfully cleaning up the civil service payroll. A clean payroll would be the bedrock for future reforms.

The problem festered for more than two years. Political instability derailed any attempts to correct the situation under a weak transitional government, led by businessman Charles Gyude Bryant and riddled by corruption allegations, from October 2003 until fresh presidential elections in November 2005. When Bryant took power, most of the country was still under rebel control, beyond the government's reach, and fighting continued on a smaller scale. A 15,000-member United Nations peacekeeping force supplanted a

smaller West African force in August 2003 to begin the process of demobilizing rebel groups and restoring government control. Corruption within the transitional government, which led to criminal investigations of Bryant and several of his deputies, stymied progress and sparked an aggressive international monitoring program to supervise government financial actions.

When President Ellen Johnson Sirleaf took office in January 2006, after winning presidential elections the previous November, she prioritized reform of the public sector, including the civil service. Formerly head of the Governance Reform Commission in the transitional government, she was charged with developing strategies to reform the public sector, including the civil service, so she was well aware of its weaknesses and the need to clean the payroll to allow for other reforms that would improve service delivery and make the civil service a more attractive place for Liberians to work.

Sirleaf appointed Allen as director general of the CSA during her first year in office. After receiving his master's in public administration, Allen, a native Liberian, had worked as an analyst at the CSA before the war, and later earned his doctorate in mass communications at Syracuse University in the U.S. before returning to serve as head of the Ministry of Information, Culture and Tourism in the transitional government. He provided political support to the process of cleaning up the payroll, an effort led by Deputy Director General for Human Resource Management Alfred Drosaye and Director of the Human Resource Management Information System Shadi Baki. Several initiatives by the CSA and Ministry of Finance in 2006 and 2007 made progress in eliminating "ghost workers," people on the payroll who, for various reasons, should not have been. However, these projects were done "in crisis mode," according to Drosaye, and had numerous methodological flaws. Many ghost workers remained on the payroll.

Furthermore, the government had little information about the employees who remained on the payroll.

Baki and Drosaye took advantage of a separate CSA project underway in the beginning of 2008 to issue biometric identification cards to all civil servants, to create Liberia's first comprehensive civil service employee database and eliminate the remaining ghost workers. This initiative included conducting a nationwide enumeration to determine the employment status of people who were listed as working at the Ministry of Finance and other ministries, vet them all for false claims, and organize the biometrics into a computer database. Cleaning the payroll would bring order to the civil service, save the government money by weeding out those who received improper pay, and facilitate future civil service reforms such as pay and pension changes and new training initiatives.

THE CHALLENGE

Liberia's civil service in 2006 remained bloated and chaotic, saddling the government with an unsustainable wage bill and little to show for the money it spent. A major cause of the inflated payroll was the use of civil service positions by governments and rebel groups during the war as patronage for their fighters. Allen explained, "As we saw various interim governments coming into town, as we saw various warring factions taking up arms, whenever there was some sort of a peace for a limited period these warring factions and interim governments would simply swell the ranks of the civil service with their loyalists, with their fighters. The civil service ... more than doubled." The Liberian government's budget contracted from US\$500 million to \$80 million as a result of the war, placing the government in a financial bind with respect to the outside wage bill.

Additionally, thousands of civil servants died or fled during the war but were not removed from the payroll, while their replacements often were

not added to it. Allen said, "We also knew that we had a huge ghost problem, people who were dead who were still on the payroll, people who were on multiple government payrolls, people who had gone to work for NGOs while still drawing a government check, people who had left the country as refugees, their names were still on the payroll. We knew this, just from our basic knowledge of the Liberian public service."

The pension list posed similar problems. An unknown number of pensioners had died during the war, but the Ministry of Finance continued to disburse checks to the full list. Pensioners who were physically unable to collect their checks from distribution centers could authorize others to collect their checks, but the government had no way of verifying the legitimate proxies. Sometimes, three or four people would claim to be the rightful proxy of a single pensioner.

Although cleaning the payroll was a prerequisite for other reforms, the CSA needed to address other weaknesses at the same time to boost morale and productivity. For example, the minimum salary for civil servants in 2006 was just US\$15 per month, well below a living wage. Even before it developed a pay-reform strategy, the CSA channeled resources to across-the-board raises to civil servants, boosting the minimum salary incrementally to \$80 per month.

Further, the agency faced a capacity shortfall. An estimated 14% of Liberians had fled the country since 1989, while a generation of Liberians grew up without regular schooling. Much of 2006 and 2007 was spent trying to recruit skilled Liberians as well as foreign nationals to devise and lead reform programs, including the biometric identification initiative, delaying the onset of strategic reforms in most areas until 2008.

Liberia's war-torn infrastructure posed another obstacle to collecting information about civil servants and pensioners. Travel to Liberia's interior was nearly impossible by car, and even parts of the main boulevards in Monrovia were

impassable due to damage from rockets and grenades. Rebels had destroyed Monrovia's two hydroelectric power plants, cut down power lines in order to use the metal to make bullets, and destroyed many of the buildings and government installations in Monrovia.

Drosaye, who had worked with the CSA since 1997 and witnessed firsthand its decline, described the situation in 2006 as dire. "Civil servants pretended to work and even the government pretended to pay," he said. "Capacity was low, very very poor; infrastructure was poor, in appalling condition; equipment was not provided; transportation was hampered; you had people who didn't have competencies and character to do the job in the first place; ministries and agencies were being overcrowded, 10 men doing two men's job." According to Drosaye, the "primary objective [was] to clean the government's payroll, build an employee personnel registry."

FRAMING A RESPONSE

Since rejoining the Civil Service Agency in 2006, Allen had been interested in issuing biometric cards to uniquely identify all civil servants through fingerprints and photographs. Using computer software to create the cards would also help eliminate ghost workers by highlighting duplicate names and would establish a digital personnel database to better manage personnel transitions in the future. In 2007, Allen organized a bidding process for companies to provide the necessary equipment. In 2008, the provider was identified.

Shadi Baki joined the CSA in the beginning of 2008 as director of information and record management, a job that included responsibility for the CSA's biometric identification program. He had worked for the Ministry of Finance before the civil war, and had been employed by a manufacturing company in Ghana during the war in various managerial roles, including director of information technology.

Baki immediately proposed some changes to Allen's original plan. Initially, Allen had planned to use paper records of employees on file at the CSA as the sole inputs for the biometric program. Most CSA records had survived the war because rebels didn't think them worthy of their attention. Instead, rebels wreaked havoc on records at the Ministry of Finance across the street and the Central Bank of Liberia down the road. However, the CSA records were incomplete. Baki described the records as "old roster files from the 1980s and 1970s which were not representative of the civil service at the time. ... The Ministry of Finance had just a few pieces of information about employees, not even date of birth."

Baki persuaded Allen and Drosaye that to optimize the usefulness of the biometric system, the CSA first had to invest time and money to compile a complete and accurate personnel registry. He said, "It's better to build employee files first and make the biometrics the last link in that chain. So we had to redesign our plan. From then on, we put all our efforts into building employee files." Biometrics were put on hold while Baki and Drosaye planned a countrywide enumeration of roughly 35,000 civil servants—not including the security services and employees laid off between 2003 and 2008—to build employee files from scratch. During this exercise, CSA representatives would travel around the country to verify that employees on personnel lists at the Ministry of Finance were in fact working at their jobs. Those who were absent from their jobs, either because they died, fled or moved on for any other reason, would be identified as ghost workers.

Baki's second innovation joined the CSA and the Ministry of Finance in a single platform that allowed the two to share information. Initially, the employee database was only accessible to CSA officials, even though the Ministry of Finance was a key player in managing the civil service. Because

the ministry issued checks to civil servants, the CSA had to notify the ministry when an employee was hired, fired, changed positions or salaries, or made any other transition.

Baki knew the Ministry of Finance was busy computerizing and automating the government's revenues and expenditures through the Integrated Financial Management Information System (IFMIS). This program would help the ministry track the government's finances, produce budgets and manage the country's resources. Baki suggested linking the CSA employee database with IFMIS so that changes in employee data and salaries would be available automatically and immediately at the Ministry of Finance. The ministry was in the process of creating its own database, and the civil service connection would offer significant benefits at little additional cost.

The World Bank agreed to pay 80% (about US\$600,000) of the cost of the enumeration and biometric processing, and the government paid the rest. Baki and Drosaye had the assistance of World Bank technicians in devising and implementing the program. They also visited other African countries including Rwanda, Zimbabwe and Ghana, which had tried to implement a biometrics program in some form with mixed success. Ghana was the only other country that tried to synchronize its biometrics with an integrated financial management system but failed, according to Baki, because of insufficient political will.

Drosaye took the lead in coordinating the nationwide enumeration, which began in September 2009 after months of planning, while Baki led on the technical aspects of processing biometric information. Baki and Drosaye set year-end 2010 deadline to complete the enumeration exercise and a target of three months later to issue all biometric identification cards. By July 2011, 22 months after the project began, they planned to synchronize the CSA database with IFMIS, in line with the planned completion of Liberia's Poverty Reduction Strategy Program and

several months before new presidential elections. By that time, any employee without a biometric card would no longer receive pay.

GETTING DOWN TO WORK

The first step for Baki and Drosaye was to recruit and train staff to carry out the various stages of the enumeration. They hired 36 workers, including a mix of personnel already employed at the Civil Service Agency, new CSA hires, outside contractors, and several office staff. Baki led the training, with assistance from the Liberia Institute of Public Administration, the government's training program. Training covered the proper way to fill out employee data forms, checking for inconsistencies and verifying data, and using the biometric equipment, including taking civil servants' pictures and fingerprints.

The Monrovia phase

In September 2009, Baki and Drosaye launched a pilot phase of the enumeration in Bomi, Grand Cape and Montserrado counties, including the Monrovia area. This initial phase aimed to register employees of some smaller ministries, such as the Ministry of Foreign Affairs, that had all or almost all of their employees in Monrovia. The idea was to iron out wrinkles in the process and give enumerators a chance to get comfortable with their tasks before the enumeration went nationwide.

During the pilot phase, civil servants in and around Monrovia came to the Biometric Processing Center in Monrovia to have their pictures and fingerprints recorded. The enumeration team then sent ministry human resource directors packets to distribute to their employees, including three copies of the same form, in different colors, and the picture for each worker. Civil servants signed the backs of the photos and filled out the three forms identically. The forms and photos were then sent to their supervisors, whose signatures were required to confirm that these employees indeed worked for

them. The forms and photos went back to the human resource directors before they finally returned to the biometric center. Enumerators sent the black forms back to the employees, while the blue forms remained at the biometric center. After vetting, employees were called back in with their black forms. Enumerators again made sure that the forms matched and then input the data into the biometric program. The black forms were stored at CSA headquarters as a backup. A third set of green forms was kept to create a manual human resource database at each ministry, allowing ministries to have a current hard-copy record of their own personnel.

The forms asked for a range of personal, educational and employment data, including age, marital status, number and age of dependents, educational attainment, the number of years employed in the civil service and positions held. The enumeration teams assigned officers at the relevant ministries to conduct an initial vetting of the data. The officers ensured that the forms were filled out identically, that each employee registered, and that the data were accurate. The enumeration teams conducted a second round of vetting at the biometric center before computerizing the data. The software was the final firewall in identifying duplicates or inaccuracies. If duplicate photos or fingerprints were found, the software automatically notified the enumerators. The clean information was used to create the biometric identification cards, which were issued to all employees of 11 ministries whose employees mostly worked in and around Monrovia.

Enumerators identified several hundred ghost workers during this initial phase. The enumerators had access to personnel lists at the Ministry of Finance and identified those who did not appear for fingerprinting. They notified the ministries that nominally employed these workers and gave the ministries several months to protest, at which point they froze the pay of the

employees. Baki processed staff that did submit appropriate paperwork at the biometric center.

Doing the rest of the country

In the second phase of the enumeration, Baki and Drosaye sent teams into Liberia's 12 remaining counties to collect and vet data in the field. The 36 enumerators divided into three teams of 12, each with a project manager, consisting of five civil servants and seven contractors. The teams further divided into four-person units to move district by district. Drosaye was the principal coordinator of the teams from his office in Monrovia.

Baki and Drosaye began awareness campaigns three weeks before the teams' arrival in the counties. They published announcements in newspapers and met with local leaders "to tell them what the benefits are so that people don't view it as a witch hunt," Drosaye said. They also spoke over United Nations community-based radio stations to describe the process and benefits of the biometric program.

County and district superintendents, the top government officials at the local level, helped the teams plan logistics. County superintendents, who were familiar with their counties' geography, mapped their districts, identified centers from which the teams could operate that were centrally located for civil servants, and developed plans for movement. The county superintendents worked with district superintendents to mobilize civil servants to the ad hoc biometric centers and to encourage civil servants to cooperate.

The teams spent 45 days in the field, on average, staying one or two weeks in each county. They were equipped with vehicles and cellphone call cards, and received allowances of US\$20 a day. Local officials directed them to the ad hoc biometric centers and ensured civil servants came to the centers on the appropriate dates. The teams carried the biometric equipment and forms with them to the counties, a major logistical

challenge in a country with poor roads. “The biggest challenge in the counties,” said Drosaye, “is the road network, especially in the southeast.” The teams struggled to stay on schedule as they encountered numerous transportation problems.

Teams worked with local authorities, non-governmental organizations and businesses to make the necessary arrangements to move themselves and their equipment where they needed to go. For example, when the team responsible for enumerating civil servants in the southernmost Maryland County encountered an impassable road, its members used their \$20 per diems to hire a commercial truck to move the equipment (they were recompensed). When necessary, teams hired motorcycles, called *pem-pems*, or bicycles, to traverse terrain. However, pem-pems could not carry equipment. One team paid locals to haul generators in wheelbarrows.

When the teams arrived at the ad hoc centers, they explained to the local civil servants the aims and details of the biometric process. To build support, the teams stressed that the money saved by eliminating ghost workers would in part be redirected to augmenting civil servants’ salaries. Civil servants filled out the forms and provided documentary proof, which the enumerators then vetted on the spot. Enumerators then took photographs and fingerprints in a process that took just two or three minutes, on average. At the end of each day, the team leader called in the results to Baki at the biometrics center in Monrovia.

Despite their ingenuity, enumerators were unable to access all areas of Liberia during this 45-day period, because of logistical challenges. In February and March, enumerators went back to the field for a two-week “mop-up” of data, forcing Baki and Drosaye to push back their target completion dates.

When the teams returned from the field, they vetted the data for a second time. They then sent the employees’ photographs back to the employees’ supervisors to confirm with a signature

that these employees in fact worked for them. Vetting and inputting of the data into the biometric software continued during the following weeks.

OVERCOMING OBSTACLES

Before Baki and Drosaye developed their plan to enumerate the entire civil service, the Ministry of Education had already begun making plans for a similar confirmation of its own staff. The problems of ghost workers and inaccurate payrolls that existed in all ministries were significantly worse in the Ministry of Education because most of its employees worked in interior counties that were battlegrounds during the civil war. Thousands of teachers fled as refugees, relocated, retired, or died during the war, without the knowledge of the ministry. During and after the war, communities took it upon themselves to replace missing teachers by the thousands. In many cases, local ministry leaders simply gave unclaimed checks of former teachers to the new ones without officially hiring them. Many of these replacements were not trained teachers and served more of a supervisory role than an educational role in classrooms.

Another complication was that there were three laws dating back to the 1970s that vested the authority to hire teachers in three different bodies—the Civil Service Agency, the Ministry of Education in Monrovia, and County Education Officers (part of the Ministry of Education). Problems arose from a lack of communication regarding personnel transitions. Building a personnel registry for Ministry of Education employees was a priority because of the number of its workers. The Ministry of Education hired by far the most employees of any ministry and represented 30% of the civil service wage bill.

Because of the confusion, Deputy Minister of Education Matthew Zarzar asked the U.S. Agency for International Development (USAID), to fund an enumeration of his ministry. The ministry wanted to get a better handle on its

resources and needs by having enumerators visit villages to count the number of teachers, their locations, their qualifications, and the number of schools. USAID agreed to pay the tab and brought in the General Auditing Commission (GAC), CSA, and the Ministry of Finance to cooperate on the project. USAID hired the Academy for Educational Development (AED), a Washington, D.C.-based nonprofit, to administer the exercise in 2008.

As Johnson Odharo, team leader for AED in Liberia, was developing the plans for the enumeration in cooperation with the CSA, Baki suggested killing two birds with one stone by equipping enumerators with biometric forms as well. The enumerators were already photographing teachers as part of Odharo's plan, and the biometric form sought nearly the same information Odharo sought. The logistics of conducting a countrywide exercise were complicated and expensive. By pooling resources, the same could be achieved for much less.

Odharo rejected this idea, claiming that his plans had progressed too far to incorporate a new biometrics component so late in the process, though Baki claimed any adjustments would have been minor and would have saved the CSA considerable time and money down the road. Odharo also claimed he lacked sufficient funds to include biometrics, though Baki insisted it could have been incorporated for a fraction of what the CSA would later pay. Instead, the five parties agreed to conduct the enumeration jointly, and the CSA would enroll them in biometrics at a later date.

Odharo's team conducted a pilot exercise in and around Monrovia in March 2009, followed by a countrywide enumeration from July 2009 to March 2010. Odharo then hired 120 enumerators, many of them auditors with the General Auditing Commission, trained and equipped them with 87 vehicles to conduct a comprehensive sweep of the counties. J. Bomo

Whiegar of the GAC insisted that GAC auditors, serving as enumerators, visit every school in the country. All told, the exercise identified more than 16,000 teachers employed by government schools and private schools.

Officials at the GAC compared this data with the Ministry of Education's personnel list and identified 3,247 ghost workers. GAC officials submitted the list to the ministry with a 30-day deadline to respond before the pay of the ghost workers would be halted.

When the Ministry of Education did not respond before the deadline, the GAC proceeded to freeze the pay of the 3,247 workers, and a firestorm erupted. More than 200 of the people who had been designated as ghost workers showed up at the office of Deputy Minister of Education Matthew Zarzar and barricaded him in his office. "I was here until 7 at night; I couldn't leave my office," Zarzar said. "I called the police to escort me and on my way out, I told the protesters that the GAC was responsible." The next day, the protesters moved to the nearby GAC until the police dispersed them. Following a public fight between Zarzar and Auditor General John Morlu, the GAC unfroze the pay and agreed to investigate the cases further before taking action. During the next few months, most of the 3,247 initially labeled as ghosts were reinstated; 1,360 remained ghosts with no pay.

GAC officials attributed the problem to oversights at the Ministry of Education and to inconsistent record keeping between the Ministry of Education personnel files and the enumerators. They claimed some errors were due to the ministry's printing first names before last names while enumerators wrote last names before first names, or using middle initials when enumerators wrote entire middle names. They also claimed employees—including Deputy Minister Zarzar, who was briefly branded a ghost worker by the GAC—gave the GAC the wrong Ministry of Education identification numbers. Zarzar

thought the GAC rushed to freeze salaries and thereby caused an unnecessary public embarrassment for the ministry and for the GAC.

ASSESSING RESULTS

The biometric campaign achieved its main goals in building a computerized personnel database, identifying ghost workers among active and pensioned civil servants, and saving millions of dollars in bogus pay.

Baki and Drosaye attempted to register the 33,195 people who were on the civil service registry in 2008. They collected and verified proof of employment and personal data for roughly 25,000 and considered the remaining 8,000 highly suspicious and potential ghost workers. Due to delays in collecting data, however, Baki was able to transfer the data for only five of 29 ministries and agencies to the Integrated Financial Management Information System by July 2011. Based on setbacks in collecting data, he shifted the target date to transfer the remaining 24 ministries to December 2011. The improvements saved the government nearly US\$4 million per year. Although the wage bill actually increased during this period as the augmentation in salaries more than offset the reduction of personnel, the national budget more than tripled during the period.

The protest at the Ministry of Education notwithstanding, Baki and Drosaye did not encounter organized protests or political opposition to their efforts. “The ministries understood that what we were doing was in their best interests, we were saving them money that they could use for other things,” said Drosaye. “And besides, the president supported what we were doing so they had no choice but to cooperate.”

Drosaye stressed that ghost workers (not including those at the Ministry of Education) could not protest because the CSA took pains to get its facts straight. “We made sure we were right,” he said. “We were very careful.”

Additionally, the CSA enumeration avoided conflict with former rebels and others who were unqualified for their positions because these employees were largely unaffected by the exercise. As long as individuals were on the Ministry of Finance personnel list and in fact performed their jobs in some capacity, even if they were unqualified and were put on the payroll illegally, they were still validated and issued biometric cards. Only those who received paychecks but did not perform their jobs were classified as ghost workers.

The CSA planned future efforts to conduct a ministry-by-ministry needs assessment in which unqualified workers would be identified and either replaced or retrained. Baki said that some former rebels who were initially added illegally to the payroll later were trained or extended their educational qualifications, and it would have been unfair to oust them as a group.

In addition to streamlining personnel transitions and consolidating records in an easily accessible location, the automated personnel database had unforeseen positive consequences. After Baki orchestrated the agreement with the Ministry of Finance to link with their IFMIS program, other agencies interested in automating their data—including the General Auditing Commission, Government Services Agency, the Customs Department of the Ministry of Finance and the Central Bank of Liberia—expressed interest in joining the common platform. The operations of the Government Services Agency and Customs Department extended to revenue points outside Monrovia as well, including the airport an hour north of Monrovia and ports along the coast. They agreed to cooperate on implementing WiMAX, a telecommunications system to provide mobile Internet access and improve communication and data sharing capabilities.

The network grew to the point that external providers were needed to boost connectivity. Baki explained, “We needed better power generators,

so we asked a Liberian telecom company, fully equipped to run a system requiring high-tech operations. They were happy to have us come on board, since they were looking to connect with fiber-optic connectivity in the first phase, then around Monrovia in second phase, and eventually around Liberia, and to add high-speed Internet. We came as their first customer for their first phase, and that helped them grow. Now we call it our National Data Center. We grew so far just from the need to have a single database. It's grown into a national data center for government ministries."

REFLECTIONS

Shadi Baki and Alfred Drosaye noted several factors that made the enumeration successful and ways in which the exercise could have been improved. Problems of coordination among agencies and donors and a rushed completion date kept the project from producing even better results.

Baki lauded the development of the National Data Center, but questioned why the idea wasn't raised before his arrival. He said the bilateral relationships between agencies and individual donors prevented communication and the pooling of resources that could produce improved efficiency and services. Several ministries had projects with various donors to computerize their operations, and the donors contracted the work to private companies with whom they had prior relationships. As a result, different ministries worked on similar projects but with different contractors that used different technologies and software. The incompatibility and limited effectiveness of the systems that were produced contrasted with the National Data Center, a common platform created through close communication among ministries and agencies.

Poor communication between ministries also caused the unnecessary duplication of efforts and tied up resources that could have been put to better use. The logistics of the countrywide

enumeration was the most complicated aspect of the program to plan, and the most costly. Baki lamented missed opportunities to join with other projects that similarly required a countrywide canvass. The Ministry of Education's effort was the most glaring instance of a lost opportunity but not the only one. Baki mentioned that a voter registration drive that covered the entire country also could have been combined with the Civil Service Agency's to pool resources and reduce costs.

Baki and Drosaye both mentioned that the timeline for the biometric project limited its applications. The completion target was set for early 2011 to match the completion point of the Poverty Reduction Strategy Program, and to show progress before presidential elections in the fall. Indeed, many other reform projects, including pay and pension reforms in the civil service, had similar deadlines. Drosaye mentioned that more time would have allowed the development of more advanced biometric cards. For example, banks might have been able to use the cards to check the identity of civil servants when they picked up their paychecks. Additionally, card readers in government buildings might have been used to keep track of the time of arrival and departure of civil servants to reduce absenteeism. The imposed deadline of 1 July 2011 did not leave sufficient time to introduce these applications.

The component that made the biometric campaign successful, and what frustrated a similar biometric campaign in Ghana, was the political will at the highest levels to see the project through to fruition. In Ghana, an investigation was opened into the purchase of biometric equipment, which stalled progress and left the project in limbo. In Liberia, the government was squarely behind the effort. President Ellen Johnson Sirleaf had an intimate knowledge of the need for civil service reform from her time as head of the Governance Reform Commission. Baki said, "The thing about it is that in our government—and I don't want to pat ourselves on the back—

but, in this government, we have the vision to move ourselves forward as fast as possible and catch up with what we lost and go beyond that. You don't find too many people throwing roadblocks in your way."

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