

Hope in the Harvest

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Travis and Gina Sheets

...truly successful agriculture requires not so much arduous labor as awareness, observation, connection, and persistence. Ultimately, it is not the growing technique which is the most important factor, but rather the state of mind of the farmer.

-Masanobu Fukuoka

Travis and Gina Sheets

In 2011, Sagamore Institute held a summit in Indianapolis on African agricultural work assisted by individuals and groups in Indiana. Gina Sheets, then Director of Indiana State Department of Agriculture (ISDA), was one of the attendees. At the summit, Gina learned about the people, businesses, schools, and organizations from Indiana doing work in Africa. The summit opened doors for Gina and her husband Travis to meet leaders, thinkers, policy makers and practitioners working on African policy. Having a strong and well established background in farming and economic development, the summit piqued the Sheets' interest for work in Africa, an interest that has blossomed into a passion.

In 2012, the Sheets received

several offers to teach diversified agriculture and small business development. But the Liberian offer proved most appealing to them. "The more we learned about Liberia the more we ached to see the country first hand," the Sheets noted. The opportunity to see Liberia for themselves came when Liberia native and Sagamore Senior Fellow Donald Cassell introduced the Indiana couple to Dr. Sei Buor. Dr. Buor is the President of Liberian International Christian College (LICC) a small developing Christian tertiary institution with a spiritual purpose to serve others located in the city of Ganta, Liberia. Dr. Buor told them about his vision to establish a program in agriculture and business at the college. Following this meeting, the Sheets travelled to see the college in its Liberian

context. Upon their return, Gina and Travis were confirmed in their vocation to Liberia.

Born and bred Indiana farmers, both Gina and Travis (now also fellows at Sagamore Institute) were well equipped for their work in Liberia. Gina has professional training in economic development and business administration from the University of Oklahoma and Stanislaus State University in California. She has more than thirteen years of practical, professional experience in economic development. Travis, with a degree from Indiana's Purdue University, has ten years of experience in diversified farming where he raised all natural pasture poultry, free range laying hens, pasture beef, rainbow trout, and a variety of fruits and vegetables for retail sale.

In January 2013, while Travis began the work in Liberia constructing the Agricultural Center on LICC's campus, Gina was appointed Director of Indiana State Department of Agriculture. Her appointment followed a distinguished service as Director of Economic Development for Indiana State Department of Agriculture where she promoted Indiana agriculture in China and Japan.

Once they had decided for Liberia, the Sheets began to prepare mentally and physically for life overseas. They established a non-profit corporation to support their work in Liberia. Gina resigned her job with the State of Indiana. They sold most their belongings and moved permanently to Liberia for work at LICC's Agriculture Center.

In Liberia, they established a

demonstration farm where agriculture education and diversified farming occur. In the diversified farming operations, vegetables, fruits, roll crops, fishery and rabbit husbandry are produced and researched. The farm is slowly emerging as a small scale agribusiness. Gina serves as Vice President of Administration in addition to teaching, and Travis leads the Agriculture Program at LICC.

Believing that hope is stronger than fear, the Sheets aspire to cultivate hope through agricultural and personal transformation. Fear, they perceive, is unproductive and destructive, holding fast a people for many generations. The Sheets are interested in building individual capacities so to deepen and expand individual contributions to community life.

Agriculture in Africa: The Opportunity

African agriculture is a great unrealized potential. Agriculture is Africa's economic backbone: 40% of all hard currency earnings come from agriculture, making it the largest contributor to African GDP. But the sector is underperforming. In Africa, agriculture is the mainstay of the rural economy and the main supporter of 70-80% of the total population (CAADP, NEPAD, 2003). Africa holds "60% of the world's uncultivated arable land" (YouTube, 2013 – Agriculture in Africa).

Africa's agricultural potential is one of the factors attracting the expertise of change agents, like Travis and Gina Sheets to Liberia. In all of Africa, only 7% of the arable farm

land is irrigated (CAADP, 23). Of the total land mass suitable for farming, 83% has limited soil fertility accounting for US \$1-3 billion loss per year (CAADP, 24). When farmers are better skilled and equipped, Africa will realize the full measure of its soil.

In 2003, agricultural work made up 60% of the African labor force; yet the continent relies on external inputs to meet its food needs (CAADP 2003.) In the year 2000 the continent received 2.8 million tons of food aid which is a quarter of the total global food aid (CAADP 2003). The annual cost of imports is \$50 billion (YouTube, 2013 – Agriculture in Africa). Liberia imports 75% of its grain, which is amongst the highest in Africa (Brautigam 233, 251). Similarly in 2006, the total imported rice bill of Mozambique, Liberia, and Senegal amounted to \$2 billion. Still, it is reported that 200 million people, largely in Sub-Saharan Africa, are malnourished (CAADP 2003).

The current food gap could be an opportunity to boost the domestic market economy and grow the independence of smallholder farmers by increasing their productivity (CAADP 2003). A new appreciation of the agricultural sector in light of its agribusiness potential, combined with incentives for high yields may draw young professionals from the urban to rural business markets (YouTube, 2013 – Agriculture in Africa).

According to the World Economic Forum, success in the agricultural value chain hinges on making improvements to relevant business

value chains such as market, infrastructure, insurance, finance, and technology (YouTube, 2013 – Agriculture in Africa). There are many areas in the value chain that could use improvement.

Markets often have middleman rates that may take advantage of farmers. The lack of road infrastructure coupled with the high percentage of landlocked countries in Africa, can increase transportation cost for landlocked countries by about 50% compared to coastal countries (Juma 2011). Land tenure or ownership is insecure in many areas leaving farmers with little security for their investments. In his book, *The New Harvest*, Calestous Juma highlights that China's recent agriculture success is linked to its focus on the needs of smallholder farmers. He sees this as a model for Africa in its quest for an agricultural revolution.

Even if farmers increase production, factors that constrict market potential must be changed. In Nigeria, cassava yields are the highest in the world. However, because of inferior infrastructure much of that yield is lost in the raw or natural state (YouTube, 2013 – Agriculture in Africa). To help clear the infrastructure clutter, Nigerian minister of agriculture Akinwumi Adesina worked to completely privatize the seed market in 90 days (YouTube 2013 – Agriculture in Africa) This policy initiative in combination with the new electronic wallet cell phone technology, which unites farmers nationwide, has brought improvement to the country's agricultural sector (YouTube,

2013 – Agriculture in Africa).

The Comprehensive Africa Agriculture Development Programme (CAADP) has been developed to spur agricultural development through appropriate policies. The CAADP document is the product of a partnership between the New Partnership for Africa's Development (NEPAD) and the Food and Agriculture Organization (FAO) of the United Nations. NEPAD's vision through the CAADP is to see a 6% growth in agricultural productivity by 2015 (CAADP 2013).

To reduce the number of malnourished Africans, the CAADP is focusing on four developmental pillars: resource management, market access, food security and research in agriculture. These four goals outlined in the CAADP has seven signatories, including Liberia (Ministry of Agriculture, 2009).

Since its development, CAADP has connected the system of investment in African agriculture so that efforts are centralized in enabling regulations and united in goals. Now that the CAADP's framework is in place, agricultural reform has climbed up the priority list in several countries. In 2011, NEPAD reported that budget allocation to agriculture was greater than the targeted 10% in eight countries, and greater than 6% in ten countries (Kimenyi, Routman, and Westbury, 2012).

Agriculture Policy in Liberia

The Government of Liberia (GOL) views agriculture as the linchpin of economic development. In 2008, Liberia implemented the Poverty

Reduction Strategy as a way to eliminate hunger and create jobs (World Bank, 2008). In the 2010 Liberia Agriculture Sector Investment Programme (LASIP), Liberia notes how investors are switching focus from the rubber industry to agriculture sub-sectors like rice, palm oil, cocoa, coffee, and bananas (LASIP Report, 6).

The US Government's global hunger and food security initiative is in cooperation with the Liberia's food security agenda through the Feed the Future (FTF) Multi-Year Strategies (MYS) for 2011-2015. The initiative aims at reducing poverty and hunger by the implementation of sustainable programs. The objectives of the national USAID/Liberia's FTF MYS are to support Liberia's Agriculture Sector growth and improve nutrition in Liberia (LASIP Report, 15). This framework highlights "transforming staples' value chains," "developing income and diet diversification," and "advancing the enabling environment" as key areas for investment (U.S Government, 2011).

FTF MYS has strategically chosen relevant Liberian staples of rice, cassava, vegetable horticulture, and goat husbandry as value chains of interest. These staples hold potential for income and nutrition, and fulfill a special interest in the role of women (U.S Government, 2011). Within Liberia, the FTF focuses on six counties in Liberia with a high potential for agriculture development because of high population, high number of farmers, increased levels of poverty, and location along Liberia's economic development corridors (U.S

Government, 2011).

Nimba County, home of LICC, is listed amongst these strategically focused counties.

In light of these policy goals, the Sheets and their team at LICC are in a position to offer support to the USAID FTF Liberia strategy in the areas of horticulture, fundamental agriculture production practices, agribusiness development, agriculture leadership development, and animal husbandry.

Liberia's Agriculture

Liberia's agricultural potential has yet to be even partially realized. Though the majority of the population consists of farmers, production remains a significant challenge. According to development statistics listed in the FTF MYS, Liberia's GDP decreased by 66% from 1987-2005. Counted as one of the world's poorest countries, Liberia is ranked 162 out of 169 countries in the 2010 UN development program. Poverty grips the population with about 64-84% living below the global poverty line of \$1.25 a day. Food insecurity is up to 42%, hitting children especially hard. Nearly half of children under age five experience stunted growth, while 15% of children under age five are underweight (U.S. Government, 2011).

Liberia faces a severe infrastructure challenge. Currently, a vast majority of roads are unpaved and impassable during the six-month rainy season. Access to electricity is confined to only 5% of the population (Gina Sheets email correspondence). These factors put a toll on

access to inputs, services, and markets (U.S Government, 2011). Land ownership is full of inconsistencies in the statutory and customary laws, resulting in insecure and unclear land tenure. With little security that seeds will be safe until harvest, farmers are not empowered to invest in production.

Liberia's two highest yielding crops are rice and cassava, which are grown by 74% and 62% of the population respectively (FAO, 2014). Liberia's primary export crops from trees are rubber, oil, palm and cocoa (LASIP Report 2009).

In Liberia, agricultural output is derived from three types of farms: traditional, commercial and concession. Traditional farming systems involve production of food for home consumption. Commercial farms are larger and usually owned by Liberians, and the concession farms are owned and operated by foreign firms (FAO, 2014).

Liberia has four large commercial farms (Gina Sheets email correspondence). The rest of the farms in the country are smallholders' lot, no larger in size (100-400 square feet) than a backyard garden in the United States. In general these farmers have little education and training for long term expanded production and increase productivity (Gina Sheets, email correspondence).

Wulki Farms near Monrovia is the largest livestock and vegetable farm in Liberia with a capacity for 30,000 egg layers. It has been in operation for more than ten years and is the only producer of table eggs for commercial purposes in Liberia

(Wulki Farms, 2009). The Wulki Farms only competition is imported produce (Gina Sheets, email correspondence).

Another major commercial farm is Grain Coast, located in the city of Bentol. Grain Coast farm works closely with smallholder farmers to enhance easy access to markets and cheaper, safer pesticides and fertilizers. Practicing organic farming with a philosophy of respect for the land, Grain Coast provides each smallholder farmer with equipment packages that are usually unavailable to the farmer, like drip irrigation systems and plastic mulch (INDIEGOGO, 2014)

The World Food Program (WFP) also has a farm in Liberia with a program called Purchase for Progress (P4P). Since 2009, P4P has addressed constraints along the value chain and develops capacity in farmers' expansion to markets (Parkinson, 2013).

Bong County houses a goat farm which was donated by the US Ambassador Deborah Malac. With a capacity for 500 goats, the facility works to improve the genetic pool of the goats and train farmers to keep their animals healthy (US Embassy, 2014).

Cultivating Knowledge

With its abundance of arable soil, Liberia's agriculture should thrive. The wealth of a nation does not consist in its natural resources, but rather its people's labor and productivity. The Sheets have found that lack of education has a direct correlation to low production rates. The average wom-

an receives 1.6 years of education and the average man, 5.8 years (US Government, 2011). The civil strife has stunted academic development by many years for many people.

Education is the main focus of the Sheets' work at the Agriculture Center in Ganta. They have assisted in the development of the curriculum for agriculture and other disciplines at LICC. Travis also travels to remote villages to teach agricultural practices (Gina Sheets, email correspondence).

Gina is focusing on an education model based on hands-on research. In addition to a study researching the tropical wilt disease of tomatoes for direct production benefits, the Taiwanese World Vegetable Center asked Gina to research the germination rates of new tropical tomato seeds (Gina Sheets, email correspondence). Students assisting Gina with the research learn invaluable skills. Horticulture students are also gaining experience with onion production research through greenhouse trials and documentation. While sweet potatoes are currently the tuber being studied on the farm, there are plans to research cassava for use as a fuel. Using an interdisciplinary approach, Gina teaches business practices to students who help run the rabbit farm in the agriculture center (Gina Sheets email correspondence). The Sheets hope to pursue additional opportunities in the areas of fisheries, wood furniture production, and textile for Liberian smallholders (Gina Sheets email correspondence).

Gina is also working to improve education opportunities in food

production for women, as Liberian women farmers produce about 60% of Liberia's agricultural products (UN Joint Program Report, 2012). In support of the FTF policy priorities (U.S. Government), Gina has started a pre-kindergarten program for children whose mothers are enrolled in agriculture training school, empowering women farmers and their children simultaneously (Gina Sheets, email correspondence).

To increase production and develop character, the Sheets teach a curriculum called Foundations for Farming (FFF) to Liberian farmers. The FFF method places emphasis on farming practices with minimum waste, precise use of resources, and an attitude of generosity and joy. As a sustainable, holistic practice, FFF combats both poor resource management and corruption as a lifestyle.

Mirroring the goals of Liberia, the FFF method includes crop rotation with no burning or plowing the ground. The Liberian farmers are used to cutting and burning trees down every season to clear land for plowed fields. This slash and burn practice leads to deforestation and denitrification of the soil. Liberia is host to two out of the three remaining ancient rain forests in West Africa, which could be lost if deforestation continues.

An integral technique to the FFF method is covering every area of tillable soil with organic matter mulch. The mulch blanket reduces the growth of competitive weeds and feeds nutrients to the soil as it decomposes. Poor soil quality in Liberia is one of the major barriers

to production. After only one year of FFF practices, the color of the soil changes from gray to rich black. The rainy season, which produces 200 inches of rainfall annually, can easily strip a field of top soil through erosion. The mulch blanket effectively holds the soil in place even during downpours, and captures moisture to prevent premature evaporation from the hot sun. Though the heavy rainfall can be problematic, it is not without its usefulness. The Sheets intend to harness the plentiful rainwater as an asset (Gina Sheets, email correspondence).

Liberian farmers trained by the Sheets at LICC Agriculture Center in the FFF method have expressed enthusiasm about propagating the method in their home villages. Her students have been impressed by the methods preliminary results in yields, and its potential earning power. These farmers may be at the start of experiencing knowledge as freedom and power (HITHM, 2013).

While creating measurable results is a main component of the Sheets' teaching, instilling integrity is equally integral to their mission. With their lives as models, Gina and Travis teach upcoming leaders the accountability that comes with responsibility. "From everyone who has been given much, much will be required; and to whom they entrusted much, of him they will ask all the more." (Luke 12:48). Responsibility is destiny. Leadership free from corruption is crucial to rebuilding Liberia.

Liberia's Relevant History

The compromised state of Liberian agriculture reverberates a tale of past conflict, political strife, violence and the intrigues of realpolitik in international affairs. Twenty-five years of civil disturbances have left the economy and the country in shambles, severely limiting public services. Liberia was established by freed American slaves in 1847 as Africa's first independent republic with a constitution and polity mirroring the United States. The country remained stable until 1980 when it suffered a violent military coup (BBC, 2013). The military coup disrupted a long and delicate process of Liberia's coalescence into a nation-state, and marked the beginning of Liberia's decline and disintegration. The enormities of the coup and its aftermath lead to a second violent upheaval in 1989. The 1989 upheaval disintegrated into a fourteen year civil war. The war officially ended in 2003.

The civil disturbances - including the war - robbed Liberia of any meaningful development efforts, leaving its people poor and devastated. Liberia is heavily dependent on foreign aid. "The US bilateral assistance alone was equivalent to two-thirds of the government's budget" (U.S. Government, 5). Corruption and selfishness wreaked havoc on Liberia's economy. Consumed with survival, the country had no energy for improving developmental resources, and so the nation regressed. Its infrastructure crumbled. The Liberian agricultural sector was but one of many casualties of Liberia's civil disturbances.

Leadership and Development

It has been rightly said "the growth and development of people is the highest calling of leadership." The new Liberian leadership has embarked on a process of restoration. Liberia finds an encouraging model for restoration in Rwanda.

Rwanda is currently one of the better functioning states in Africa, and one of the fastest developing nations in the world. Like Liberia, Rwanda has a history of unrest leading to corruption, violence and the intrigues of realpolitik in international relations. Rwanda's relations with its former colonial masters is burdened by mistrust and ill will.

Civil disturbances in Rwanda appeared in multiple massacres and eventually the Rwandan Genocide of 1994, where 800,000 Rwandans were killed within a month (Cassell, 2012a). After the country had annihilated an eighth of its population, many fled from Rwanda in shame and fear, including the international community. For those who stayed to pick up the pieces of the self-mutilated land, only hope remained.

Fueled by a determination to redeem the past, the new Rwandan leadership followed its vision of restoration to secure the nation-state, cultivate reconciliation, develop people and grow the economy. So reforms are focused on security and unification of the nation-state, the court system, education, and the economy.

The new Rwandan leadership has achieved success with the help of a zero tolerance corruption policy that holds government officials ac-

countable, a dedication to increasing competency that engages the educated of the Diaspora, and a determination to learn from its past. Under this new leadership, Rwanda has seen an 8% annual economic growth for at least a decade, while enjoying more security and better governance. Over a million people have climbed out of poverty because of discerning policy reform. Progress is such that in 2012, the World Bank referred to Rwanda as a country “at peace and among the most stable in the world.”

The advantageous leadership reform modeled in Rwanda is incremental in Liberia with considerable room for growth. It is the goal of the Liberian Government for “Liberia to be a broad-based middle-income country by the year 2030, leaving no Liberian behind” (U.S. Government, 19).

From the close of the civil war, Liberia has benefited from positive economic trends. Since 2005, the Liberian economy has grown at a yearly rate of 7% (Cassell, 2012a). Foreign direct investment and government revenue in Liberia have both increased greatly. The net flow of FDI in 2010 was \$453 million. Since 2005, government revenue has increased by 445% (Cassell, 2012b). The Ibrahim Index of African Governance rated Liberia as one of the most notably improved nations in all of its area of governance from 2006 to 2010 (Cassell, 2012b). According to the Ministry of Finance in Liberia, the country’s GDP is expected to slow down 6.8% in 2014 (Toweh, 2014). The GDP is projected to rise to 8.6% in 2015, as regulatory and

infrastructure improvements lessen the cost of doing business in Liberia (African Development Bank, 2014). Policy reforms will need to be expanded, enriched and deeply rooted to continue the required high rate of growth for national development. Of course, the Ebola health crisis has cast a shadow over all of these projections.

The national leadership will continue to need the support of other national, community, and local change agents to sustain the recovery of Liberia. To ensure the replenishing of strong leadership skill, the National Leadership Development Program policy has been drafted. As with all policy efforts, implementation will be important to success. In 2009, The President’s Young Professionals Program began in order to offer leadership training centered on integrity and honesty for the private and public sectors (Norman, 2013). Strong decisive moral leadership with a clear vision of a good and just society is in Liberia’s best interest.

Cultivating Change

Through the Agriculture Center at LICC, the Sheets are witnessing the effects of their work. They are encouraged to see Liberians nurturing seeds to full growth with a care for the environment and reaping a good harvest from their own agricultural labors. One farmer named John was so impressed by the yield of his pepper plants from the FFF method that he committed to return to his village and share the value of the method. A young woman named Eran, seeks to learn farming to

provide for her family. Eran hopes to graduate with an associate degree in agriculture from LICC. She is paying for her schooling with money earned from employing her newly acquired agricultural knowledge and skills on her farm (Gina Sheets, email correspondence).

The Sheets' goal for the future is that the agriculture department will be taken over by capable Liberians teaching as professors and farming at the Agriculture Center. They see Liberian-grown agricultural exports providing income for Liberians and sharing with the world the produce of Liberian soil. The focus of the Sheets work in Liberia is to see this great vision realize (Gina Sheets, email correspondence). There remain however, many challenges to growth in the areas of physical infrastructure, the development of appropriate market mechanisms, strengthening the legal system around land tenure, and the development of human capacity. The Sheets' work professionally and spiritually in conjunction with other enabling factors provide much hope for Liberia's future in agriculture and development, notwithstanding the current crisis of Ebola.

Commitment to a transcendent hope drives the Sheets in their work. "Seeds, like souls, must be nurtured. [We] cannot walk away only to return and pray that enough nourishment was given to the seed in our absence." They are committed to nurturing growth in people and agriculture by living alongside Liberians, being there to see that seeds of excellence, knowledge and love blossom in both agriculture and in a

new generation of Liberians ready to change themselves, the life of their country and the world. (Gina Sheets, email correspondence).

Conclusion

The Sheets work at LICC in mentoring and nurturing farmers with skills and knowledge to excel undergirds the best efforts of the Liberian leadership. The development of a nation begins with the development of its people. As a mainstay of Liberia, growth in the agriculture sector will be strategic to Liberia's national development and overall economic prosperity for the foreseeable future. Official Liberian government policy is to encourage growth and development in the agricultural sector. Local change agents, like the Sheets, concretize that policy in the reality of Liberia by sowing the seeds of knowledge and integrity into future Liberian leaders, who, it is hope, will change agriculture in Liberia for the better.

The Sheets' ambitious vision is to see the African continent emerge as a business partner in the international community beyond food insecurity and poverty, transcending its current status as a mere donor recipient. This is also the fervent hope of many Liberians, notwithstanding the many severe losses that Liberia has sustained over the last three decades. The high calling here is for every Liberian and all international partners to rise to the standards of servant leaders who run to a great purpose.

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