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Agricultural Development: A Valuable Tool for Peacebuilding in Conflict Countries

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Introduction

This white paper, presented on the sixth anniversary of South Sudan’s independence, explores the transformational power of agriculture in the most fragile and bleak environments. It argues that agricultural development is a critical intervention for building healthy societies and establishing sustainable peace in the most conflict-prone countries. It encourages donors to initiate this type of assistance as soon as a modicum of stability is established. Otherwise, valuable time is lost as markets further collapse and the plight of smallholder farmers worsen.

This paper suggests that agricultural development — because it directly addresses the fundamental causes of modern conflict — should not solely be a post-conflict activity but rather take place before and sometimes during conflict. Abt Associates has been on the front lines of this issue as the United States Agency for International Development’s implementer for the Food, Agribusiness, and Rural Markets (FARM) projects in South Sudan from 2010 to 2016. This paper presents our experiences during those projects and shares the lessons we learned from working with thousands of farmers and hundreds of communities as we strove to introduce an alternative to conflict in the young and struggling nation of South Sudan.

The South Sudan FARM Projects at a Glance

Between 2010 and 2016, Abt Associates implemented two FARM contracts and expended more than \$62 million in the Greenbelt area of South Sudan, covering Eastern, Central, and Western Equatoria States. The first project (2010 to 2015) introduced modern agricultural technologies and practices that had not previously existed in the country. It also created the systems, structures, and networks to reach large numbers of farmers in difficult-to-access locations in a cost-effective manner. The one-year FARM II project (2015-2016) built on the first project’s successes, further introducing smallholders to market opportunities and helping usher them into a nascent economic system.

During our final years in South Sudan, our work was often affected by conflict in and around our project areas. Work continued throughout this period, even when our expatriate staff was evacuated from the country for four months and implementation was led by our South Sudanese staff supported by leadership teams in Kenya and the U.S. To continue our work as conflict increased in the country, we augmented our field team with full-time expatriate security specialists and adjusted some of our operational practices, such as using air travel to reach some locations rather than relying on roads that had become quite dangerous.

While persevering through this adversity, FARM I and II created the beginnings of commerce in the Greenbelt, boosted food security, improved livelihoods, and significantly strengthened civil society. As documented in the project’s [final report](#), by the end of FARM II, achievements included:



Farmers like this young woman were among the 20,000 smallholders who participated in FARM-supported community farming organizations. Despite operating in a conflict environment, the projects were able to help organization members adopt better agricultural practices, engage in commercial agriculture, and work together in a way that offered them hope that they could change the fate of their country.

Photo credit: Jessica Scranton

- A 535% increase in maize yields;
- An 82.5% reduction in post-harvest losses;
- Increased farmer productivity, which doubled and sometimes tripled the African continent's average for cereal crops;
- Almost 20,000 smallholders engaged through 732 community farming organizations that had been created and strengthened with project support;
- 132 cooperative societies and seven cooperative unions created or strengthened to serve as market intermediaries; and
- Introduction of seed multiplication, contract farming, agro-dealer development, aggregation, credit service, and export activities.

Causes of Internal Conflict in Developing Countries

Economists Paul Collier and Anke Hoeffler have developed a model that describes greed, not grievance, as the main driver of internal conflict in today's developing countries.¹ Their research has shown that modern conflict is predominately initiated for economic advantage rather than because of widespread ethnic or religious differences or lack of civil liberties. Civil wars are now sizable economic undertakings, ones that require large amounts of organization, labor, weapons, and financial investment. They also require a large financial incentive for the small number of leaders who organize and finance them.

The Collier and Hoeffler study identified two key factors that make internal conflict more likely in the developing world. First, civil wars are most likely to occur in countries that are highly dependent on a primary commodity export (such as petroleum, minerals, or a cash crop) that provides the financial incentive and potential revenue stream to sustain an armed conflict. Second, due to the high cost of war, internal conflicts are much more likely to occur in countries with low per capita incomes. The poor, with minimal opportunity costs and little to lose, provide an ample supply of inexpensive labor to build a rebel force.²

Since the large majority of conflicts since the Cold War have been internal and have occurred in the world's poorest and most agriculture-dependent countries, this white paper argues that peacebuilding plans should include robust efforts to diversify national economies and increase livelihood opportunities for the poor in local, and especially rural, communities. Rather than waiting until peace has been achieved, development practitioners should see agricultural development as an ongoing solution that can help build peace in countries that have proven unable to stop their endless cycles of violence.

¹ Paul Collier and Anke Hoeffler, "Greed and grievance in civil war," *Oxford Economic Papers* 56 (2004) 563–595.

² Other findings in the Collier and Hoeffler study suggest that civil war is more likely to occur in countries with dispersed populations, which allows opposition groups to take root and grow with only limited interference by the government. Overall population size is also linked to civil war: the greater the number of people living in a country, the more likely it is that conflict will occur. In addition, the probability of conflict dissipates the longer the country is removed from conflict, suggesting that the more time given to national healing and post-conflict development, the lower the chances of a recurring war. Lastly, religious and ethnic diversity help deter civil war by making social cohesion more difficult and formation of an opposition force more costly. Conversely, domination of one or a few ethnic groups in a country could make social cohesion less costly and therefore increases the probability of internal conflict.

Conflict in Africa

Roughly a third of the countries in sub-Saharan Africa have experienced war in the last 25 years. In 2014 alone, one half the region's population lived in countries experiencing internal conflict.³

The Collier and Hoeffler findings help us understand why Africa remains highly prone to internal conflict while other part of the world have achieved significant improvements during the post-Cold War era. Aside from the oil-producing countries in the Middle East and North Africa, sub-Saharan African economies are far less diversified and more dependent on natural resource and commodity exports than those in other regions.⁴ GNP per capita in sub-Saharan countries is one-third to one-fifth of that in other developing countries. This gap continues to widen⁵ as the region's institutions and political systems have not been able to address some of its most critical rural issues – such as land tenure – nor give its citizens a voice to express their grievances or influence their futures.

The Plight of South Sudan

South Sudan provides a rather extreme example of the challenges faced in Africa. Although hope appears far from sight, Abt Associates' experience working in the country suggests that important root causes of South Sudan's high vulnerability to civil conflict can be mitigated through effective and thoughtful agricultural development, even during times of significant instability.

South Sudan has a long history of conflict stemming from cultural traditions, geography, and centuries-old geopolitics between the Arab and sub-Saharan African worlds. For centuries, conflict has existed within and among South Sudan's various ethnic groups, mostly centering on cattle grazing and water rights. Cattle-raiding has long served as a rite of passage for young men to accumulate wealth and prepare for marriage. Groups would attack and counter-attack, usually with sticks and spears. These conflicts were generally isolated disputes contained by traditional laws and grievance practices. Despite their differences, the Dinka, Nuer, and other ethnic groups also have a long history of co-existence through trade, inter-marriage, and other practices.⁶

Over the past several decades, petroleum and technology have politicized conflict in South Sudan. Access to oil wealth provides great incentives for profit-seeking elites to gain influence and control of the country. Political alliances among various power groups have formed and a system of tribute payments has been established by the government to maintain a tenuous balance of power within the country. In the midst of this system's failure to maintain peace in the country, conflict has scaled up significantly. There are more and more soldiers, and they now fight with guns and tanks as their instruments of war. As local disputes have escalated to nationwide violence, there is no longer any region or group of people safe in South Sudan.

³ Extrapolated from List of Civil Wars, Wikipedia. See https://en.wikipedia.org/wiki/List_of_civil_wars

⁴ Xiaodan Ding and Metroid Hadzi-Vazkov, "Composition of Trade in Latin America and the Caribbean," (IMF Working Papers, WP/17/42, March 2017), 18.

⁵ Compiled using the World Bank International Comparison Program (ICP) database at <http://www.worldbank.org/en/programs/icp>

⁶ Tongun Lo Loyuon, "Why are the Dinka and Nuer Killing Each Other in South Sudan?" *South Sudan Nation*, January 23, 2014. <https://tlooyuon.wordpress.com/2014/01/23/explaining-current-internal-armed-conflict-in-south-sudan-to-german-audience-from-an-ethnic-lens/>

Much excitement was generated when South Sudan joined the community of nations on July 9, 2011. As the newest country in the world, South Sudan received a great deal of support from the international community to build a positive future. However, beginning in December 2013, the country returned to conflict based on ethnic lines between the Dinka-led government and the Nuer-led opposition. Despite considerable international encouragement and pressure, the opposing parties have yet to resolve their differences and the conflict has continued to spread throughout the country.

To understand the causes of this conflict, we must first understand the fragility of South Sudan's peace. It is helpful to look at the following six unique characteristics, drawn from the Collier and Hoeffler model.

Extreme poverty. South Sudan has little history of commercial activity aside from petroleum production, which began in 1999. Its extreme poverty rate recently has soared to 65.9%, making South Sudan one of the world's most impoverished nations.⁷ Other development indicators fare no better.

Approximately 73% of the country's population is illiterate and its maternal and infant mortality rates are among the world's worst.⁸ To compound the situation, in June 2017, according to The Washington Post, "Fully 50 percent of South Sudan's population, or 6 million people, are expected to be 'severely food insecure' in the coming weeks."⁹

Political instability. From the time of the British departure in the 1950s until its independence in 2011, Southern Sudan had been ruled from Khartoum. Few political or civil institutions had ever existed in Southern Sudan prior to 2011, and throughout its history the country has been highly dependent on support from nongovernmental organizations. The ruling ethnic groups have little experience in centralized governance; their tradition is

Considerations for Building Peace in South Sudan

Only national reconciliation at the top level will attain long-term peace and stability in the country. A strong government is needed to bring control and order; it should represent all the people of South Sudan. This requires significant pressure and support from the international peacekeeping and diplomatic communities. South Sudanese leaders must be held accountable for the harm caused to the people.

The government must get back to governing with an orientation towards serving the South Sudanese people. There should be a long-term commitment to steadily build the government's capacity at all levels to create an enabling environment for the country to develop and grow. A foundation should be laid to instill checks and balances into a political system that provides a fair and organized approach to allocate the nation's resources, settle its grievances, and listen to all voices that represent the country.

The grassroots level is critical. The country must be developed from the bottom up. Livelihoods must be created. Communities must be strengthened. Social capital must be developed. Human capacity must be raised. Identity, pride, and a sense of purpose and commonality must be instilled among all the people. Agricultural development projects can address all these needs. At the same time, humanitarian assistance must continue to help the most vulnerable and needy. Humanitarian assistance also aims to initiate grassroots-level development, but is less able to harness the sense of hope and pride that agricultural development projects can create.

⁷ Macro Poverty Outlook for Sub-Saharan Africa, South Sudan. <http://www.worldbank.org/en/region/afr/brief/macro-poverty-outlook-sub-saharan-africa>

⁸ UNDP in South Sudan. http://www.ss.undp.org/content/south_sudan/en/home/about_undp.html

⁹ Jackson Diehl, "No One is Paying Attention to the Worst Humanitarian Crisis Since World War II," *The Washington Post*, June 25, 2017. https://www.washingtonpost.com/opinions/global-opinions/no-one-is-paying-attention-to-the-worst-humanitarian-crisis-since-world-war-ii/2017/06/25/70d055f8-5767-11e7-ba90-f5875b7d1876_story.html?utm_term=.64aeed576f8

one of power fluidly devolving to clans and other sub-ethnic groups. To this day, the country has few functional institutions, public or private, to serve its people. Furthermore, when it became an independent nation, South Sudan had already been marred by 40 years of conflict with the Arab parts of Sudan, making conditions ripe for the creation of a highly military-minded leadership structure.

Inaccessibility. South Sudan is approximately the size of Alaska. Approximately 83 percent of its population lives in rural areas that are mostly unreachable except by air.¹⁰ It does not have a single paved road outside Juba, its capital city. Lack of mobility allows factional groups to develop and amass power with little interference from the central government or main opposition groups.

Ethnic dominance. South Sudan's population of over 11 million is comprised of about 60 distinct ethnic groups¹¹. Although it is highly diverse, there are two large ethnic groups that make up most of the country's population: the Dinka (36 percent of the population) and the Nuer (16 percent). Leaders of each group are struggling for dominance. Both include numerous sub-groups, which creates a complicated and shifting web of alliances and adversaries and weakens the control of both the central government and the opposition.

External financing. South Sudan is the most petroleum-dependent country in the world. Oil is responsible for 95 percent of exports and approximately 90 percent of government revenue comes from petroleum production.¹² Petroleum funds the military and the various political constituencies that rule the country. As oil prices dropped from almost \$98/barrel in 2011 to a low of \$33/barrel in early 2016, South Sudan increased its national debt from \$0 in 2011 to \$465 per capita in 2015 to maintain the fragile status quo between the government and the nation's factional groups.¹³ Excessive corruption further exacerbates the situation as illustrated by Transparency International's ranking of South Sudan as the second most corrupt nation in the world, trailing only Somalia.¹⁴

Little time for recovery and development. The Khartoum-based government of Sudan made little effort to develop Southern Sudan after the end of British rule in the 1950s. The two and one-half year window between South Sudan's independence and the outbreak of the current violence in December 2013 was too short to make sufficient development gains to mitigate the country's conflict risk. Power struggles among the elite had not been firmly resolved and the government was not able to develop its capacity to serve its citizens in a peaceful and stable environment. South Sudan, and the donors who supported it, did not have time to develop and diversify the economy or foster livelihood opportunities for its people. The result? The underlying factors that led to war remained relatively unchanged and war-time habits and behaviors continue to prevail in the country.

¹⁰ UNDP in South Sudan. http://www.ss.undp.org/content/south_sudan/en/home/about_undp.html

¹¹ Asylum Research Consultancy. <http://www.refworld.org/pdfid/511bc5f88.pdf>

¹² International Monetary Fund, African Department, "South Sudan: 2016 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for South Sudan," *Country Report* No. 17/73, March 23, 2017. <http://www.imf.org/en/Publications/CR/Issues/2017/03/23/South-Sudan-2016-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-44757>

¹³ Ibid.

¹⁴ Transparency International, Corruption Perceptions Index 2016.

What is the Solution for Peace in South Sudan?

Peace seems hopeless and unobtainable in South Sudan. The international community has given billions of dollars in peacekeeping, humanitarian assistance, and development programs in the country and has thus far seen little return on this investment.

The process for achieving sustainable peace in South Sudan will not be easy. The dilemma is complex, and we at Abt Associates understand there are no quick and easy solutions. However, through a deliberate and sustained development approach, we believe that the international community can have impact on the creation of a lasting peace for the long-suffering people in South Sudan.

We believe that support is needed at all levels to stop South Sudan's endless cycle of conflict. While the country has shown itself unready for effective international support at the political and governance levels, Abt's agricultural development work during its six years in South Sudan has proven that significant economic and societal gains can be made at the grassroots level, even during times of chaos and disorder.



“If we could ask death to wait, this is the time to ask because it looks like we spent a lot of our time in the past with little knowledge but now, at my age, I have a lot of knowledge that needs to be used productively.”

Lokosing Levi, farmer and member of the Soruba Farmer Based Organization, Yei River County.

The “Bottom-Up” Approach for Building Peace in South Sudan

Based on our work on the FARM projects, we suggest that the development of agriculture, along with fisheries and livestock, is the only way South Sudan can develop as a peaceful and stable society. During our six years of work in the country, we came to see that agriculture can be an empowering force that could enable the citizens at the grassroots level to change the fate of their country. We believe that agricultural development can have an impact on five key areas that will lead to this transformation.

Livelihoods. The United Nations reports that 85 percent of the working population is engaged in non-wage work, particularly as small-scale farmers and herders. At least 80 percent of the population is income-poor, earning less than \$1 per day.¹⁵ With ample natural resources across much of the country, agriculture is South Sudan's livelihood-creation sector. It has the power to change the conflict economics of the country by increasing the opportunity cost for the rural poor to engage in war and increasing the price tag for the elites who aim to benefit from civil war.

Social capital. South Sudan is starving for social capital, as its society lacks trust, cooperation, and reciprocity among its numerous population groups. Social capital is needed to create unity and interdependence which are the foundations for building national identity. Interestingly, Southern Sudan's fragile social capital was sufficient to gain independence from

¹⁵ UNDP in South Sudan. http://www.ss.undp.org/content/south_sudan/en/home/about_undp.html

Khartoum but has proven far too weak to maintain peace and cooperation within the new country. The nation now needs an economic reason to profoundly strengthen its social capital. A functioning agricultural sector can be the catalyst for building social capital within the country by bringing people and communities together through investment, trade, and collective learning—both for individual and community benefit and eventually the common good of South Sudan.

Identity and purpose. Agrarian life is the fabric of rural society throughout sub-Saharan Africa and much of the developing world. Local customs, traditions, and rituals, having evolved over centuries and are deeply rooted in agriculture. The rhythm of a farming community's life is based on the planting and harvest seasons, and a deep connection with the land and responsibility for its care. Family and community structures are the outcomes of this farming life, with each individual having a role and purpose. When agriculture is taken away, the social structure within the family and community quickly collapses. Restoring agricultural life in South Sudan can have a tremendous psychological impact on the country's people. It can return them to their cultural traditions and give purpose, hope, and normalcy back to its people.

Commonality. Farmers, herdsmen, and fisherman — regardless of ethnic group — share many of the same interests and concerns. They require access to land and water and hope for certainty and security. They want to produce enough food to feed their families and a surplus to provide better housing, medicine, and education for their children. They need enhanced knowledge and skills to increase production, and must think beyond their communities to obtain better inputs and seek trading partners to exchange goods and services for their excess production. As interdependence is established, farmers and their trading partners share a common interest in maintaining and strengthening their production and trading systems. These common interests can be the source for peace in South Sudan. If farmers and traders are aware of this commonality and given a proper voice, they can have a powerful influence on building a lasting peace in South Sudan.

Resilience. As defined by USAID, resiliency “is the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth.”¹⁶ Rural communities can only be resilient if they produce one or more things of value and have access to markets to trade what they produce. Without both, the rural poor are confined to subsistence living or dependency on government or international assistance and have little capacity to overcome disruptions or outside pressure from rebel or warlord groups. Peacebuilding and resiliency go hand-in-hand. Agriculture and trade are key for building healthy, active, and resilient rural communities that are the cornerstone for a secure South Sudan.

Seven Key Lessons Learned during Abt's Experience in South Sudan

Abt Associates' six years of experience working in South Sudan's agricultural sector for USAID was unique for several reasons. These included the country's very low development baseline, its political context and donors, and the timing of our work. Due to the history outlined above, when Abt began work in Southern Sudan in 2010, one year before the nation's independence, its people had very little access to modern farming knowledge and no prior experience with a commercial- and market-driven economy. Poor physical infrastructure made it very difficult to operate and little development work had previously

¹⁶ United States Agency for International Development, “Resilience at USAID,” (USAID Fact Sheet, June 2015). [usaid.gov/sites/default/files/documents/1867/06.30.2015%20-%20Resilience%20Fact%20Sheet.pdf](https://www.usaid.gov/sites/default/files/documents/1867/06.30.2015%20-%20Resilience%20Fact%20Sheet.pdf)

been done. When we started work, we faced significant pressure to quickly build a commercial agricultural sector and rapidly achieve scalable results. And, we were working with a very large rural population struggling just to be subsistence farmers and who needed our assistance. Through this experience we offer the following key take-aways on agricultural development's role in achieving a lasting peace in South Sudan.

1. There are no quick fixes for achieving sustainable peace in South Sudan.

Many security strategists were not surprised when internal conflict broke out within a few years of South Sudan's independence, given the fundamental characteristics that made the country highly susceptible to civil war. South Sudan's reality cannot be ignored: sustainable peace and stability is unlikely to be achieved without a long-term and persistent effort to tackle development. Rather than helping create a solution for achieving peace in the country, petroleum production provides profit opportunities that fuel the conflict. Agriculture is the development solution in South Sudan, given the country's abundant fertile land and natural resources and its comparative disadvantages in all other industries outside of mineral extraction.



The above left photo shows at least five seeds planted in the same hole, with stalks that will never fully develop. The photo on the right shows that only one seed was planted per hole. The stalk is very healthy and will produce significant amounts of maize.

Planting one seed per hole was a major behavioral change for traditional smallholders in South Sudan. This practice can transform a subsistence farmer to a resilient one.

However, the status of South Sudan's agricultural sector is quite weak due to the country's long-standing under-development. Abt learned that introducing technology alone was not enough to increase farmer productivity. A great deal of time and work was needed to generate widespread behavior changes among farmers. A distinct example of this challenge was our effort to change planting practices when we introduced modern seed technology. Due to the low germination rates of the seeds they had used in the past, farmers planted three, four, or five seeds per hole, hoping that one would germinate. But because the modern seed that Abt introduced had a high germination rate, only one seed was needed per hole. This allowed farmers to plant three, four, or five times the amount of land with the same number of seeds they had used in the past. In addition, planting one seed per hole yielded larger, healthier, and more productive crops than planting multiple seeds per hole. Convincing farmers to make the change, however, was not easy or quick. It took three years to achieve widespread adoption of this practice, but ultimately this fundamental behavior change was highly transformational. It enabled smallholder farmers to move from subsistence to surplus farming and generated community engagement as farmers worked with their neighbors to learn and apply this new knowledge and seek markets for their surplus production.

2. South Sudanese farmers can dramatically increase productivity.

Abt Associates' FARM project directly worked with almost 20,000 farmers during six years in the Greenbelt region of South Sudan. Our assessments show that many more farmers indirectly benefitted

from our program. A yield assessment conducted by Texas A&M University showed that our beneficiary farmers increased their productivity by 535% during the years we worked with them. As shown in the table below, our beneficiaries far exceeded the productivity levels of their East African neighbors and more than doubled or sometimes tripled the productivity levels of the average African farmer. The outcome of the Texas A&M University study gives great hope to the South Sudanese people. It showed that the country's farmers, without fertilizer, can dramatically increase productivity and production to feed themselves and their communities and create a livelihood through their surplus crops. Interestingly, the same study also showed that uneducated farmers were more productive than educated farmers and that female farmers are as productive as their male counterparts in South Sudan. This illustrates the wide-reaching effect that agricultural development can have in various areas of South Sudanese society.

Crop Yield Comparison (kg/ha) by Country or Location in Africa

Location/Country	Maize	Groundnuts	Beans	Cassava
Greenbelt FARM II Beneficiary [†]	4,274	2,487	3,084	42,506
Greenbelt FARM II Control [†]	3,510	1,814	1,856	42,052
Uganda *	2,500	700	1,300	3,300
Kenya *	1,660	2,598	585	13,471
DRC *	778	768	610	8,077
Chad *	1,260	900	1,260	10,442
South Sudan (FAO) *	964	533	3,090	1,666
African Continent *	2,098	961	816	8,379

[†] Data source: Yield Assessment Data, submitted to Abt Associates by the Borlaug Institute, Texas A&M University, March 2016.

*Data source: Statistical Database of the Food and Agriculture Organization of the United Nations.

<http://www.fao.org/faostat/en/#data>

3. Markets can develop during difficult times.

No matter how productive South Sudanese farmers became, Abt understood that they could not move beyond subsistence farming without help accessing markets. We also understood that our impact could not be scaled up and made sustainable without a market-pull approach. The first years of the FARM project focused on basic production assistance, but we increasingly emphasized market development as farmers began to grow surpluses during the final three years of our work. Much of this assistance concentrated on increasing farmers' capacity to market their surplus production. We provided support in areas such as financial literacy, value addition, storage and logistics, and business planning while simultaneously introducing market opportunities to groups as they were ready. Abt played a very active role in building a collective marketing system in the Greenbelt region. We helped build 732 nascent community-based farming organizations that typically included approximately two dozen farmers. These farmers worked collaboratively to increase their production and aggregate their surpluses at the village level. Abt also supported the creation of more than 100 cooperative societies that allowed these small groups to aggregate and market their surpluses at a larger scale. We helped start up seven cooperative unions, each of which included numerous cooperative societies, which provided services to farmers and smaller farming groups and helped further aggregate and market produce at the county level.

Interestingly, the onset of conflict in 2013 created business opportunities for some farmers as a weakening local currency gave South Sudanese produce a competitive price advantage over the Ugandan imports that had previously dominated local markets. Institutional buyers, such as a large regional brewery, began to explore options for sourcing sorghum from Abt's project beneficiaries to supply breweries in East Africa. The World Food Programme's Purchase for Progress initiative began to purchase surpluses through FARM project-supported cooperatives. And, input suppliers began to invest in the region to support this new commercial activity.

4. Agriculture is a catalyst for developing functioning communities.

All this commercial activity was new to Greenbelt farmers and they swiftly developed their business capacities to respond to this challenge. As farmers and communities began to learn, work, and cooperate with one another, they created social capital. Working together with other like-minded farmers proved to be a powerful opportunity for them to contribute to the common good of their communities and to develop life and technical skills that they had previously been unable to develop. The involvement of women and youth in these civil society groups was life-changing, often altering their roles and stature within their communities.

During FARM's final months in 2016, Abt contracted a consulting firm to conduct two independent surveys to assess the project's impact on farmers and communities. The surveys showed that the large majority of community-based farmer organizations had active management and member participation, showing that local communities were working together in a collaborative manner for both individual benefit and the common good. Approximately 80 percent of the community groups regularly collected membership dues and had a formal governance structure, while more than 70 percent stated that access to information was not exclusively confined to group leaders but shared among all members. Almost all farmers surveyed said they regularly participated in the community groups' activities and felt their groups encouraged them to voice their opinions. Significantly, almost all—95 percent—of the farmers reported sharing what they have learned with other farmers and more than 75 percent of the groups reported that they routinely worked with other community farming groups in their areas. These results showed that not only were the project-supported farming groups strengthening civil society within their local communities, but that knowledge and benefits introduced by the project were spreading beyond the project's beneficiary groups to the broader population.

5. Sustainable peace through agriculture requires tremendous tenacity and persistence.

Building an agricultural sector in such a difficult and unstable environment is not an easy process. Abt experienced many ups and downs during our six years of work in South Sudan. The turnover rate for many staff positions was high and the recruitment effort to fill positions was difficult. We responded to many priority shifts and security events throughout the project's life. As outside influences constantly



FARM facilitated the sale of maize from project-supported cooperatives to the World Food Programme, which used the grain to feed some of the country's displaced populations. As German Oken, a FARM II extension worker, noted:

“Instead of the government helping the farmers, the farmers now are helping to feed people in other parts of South Sudan!”

changed, the strength of our program lay in our persistent focus on helping smallholder farmers and working with local communities to achieve objectives that brought them both benefit and hope. Interestingly, as the security situation became increasingly difficult, our work became somewhat easier as the understandable plethora of expectations about what the project should be working on tended to dissipate and the focus on supporting smallholder farmers became even sharper.

6. Peace is fragile.

One of the keys to effectiveness in an environment such as South Sudan is to understand its fragility and the dynamics of peace and security in the areas where work is taking place. Our goal as a development organization is to make things better, not — of course — to make things worse. Therefore, a comprehensive understanding of the risks and ultimate impact of the work, both good and bad, should be a critical element in project planning and monitoring. Abt used technical assistance and staff awareness training to begin applying a “Do No Harm” approach during the final years of our project. However, the issues associated with a “Do No Harm” approach are often community specific and highly nuanced and complex. There is much to learn on this subject, and it would be helpful to review the influence our project had in each of the locations where we worked. Abt suggests that more intensive focus be given to “Do No Harm” on future development projects in fragile states, especially at the design and start-up stages.

7. Agricultural development should be considered a pre-, during-, and post-conflict intervention in fragile states.

The causes of modern conflict are complex. This paper asserts that chronic vulnerability plays an important role. The solution, therefore, must include programs to improve economic opportunities and strengthen livelihoods. As these internal conflicts predominantly occur in agriculture-dependent countries, we believe that long-term agriculture programs should be a critical early intervention in many vulnerable countries. Agriculture development programs not only provide nutritional and economic benefits, but they can serve as an effective tool for addressing the primary factors that feed conflict and violence. A great deal of development resources has been invested during the last 15 years in post-conflict countries such as Iraq, Afghanistan, and South Sudan. These resources have supported huge nation-building efforts, but have achieved limited success. In this context, this white paper argues that agricultural development programs should be as a critical early building block for peace for countries in conflict.

When asked about the biggest barrier to farming, only 1.7 percent of farmers in the Greenbelt named insecurity — even though conflict had already broken out. This clearly suggests that agriculture can develop despite ongoing conflict.

It has been a privilege and humbling experience to work with the people of South Sudan during our six years of work in the country. They are an incredible, talented, and highly resilient people. They deserve peace and security with hope and opportunities for a much better life. Through persistence, tenacity, and deliberate development efforts, we believe that peace and prosperity can be achieved in South Sudan. For more information about Abt’s work in South Sudan, please read our final report located [here](#) on USAID’s Development Experience Clearinghouse or [here](#) on the Abt Associates website. We also encourage you to watch our project video entitled “[From the Ground Up: Rebuilding Agricultural Systems in South Sudan](#)” on our website.