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VALUE CHAIN FRAMEWORK AND THE LULU LIVELIHOODS PROGRAMME

GUIDED CASE STUDIES IN VALUE CHAIN DEVELOPMENT FOR CONFLICT-AFFECTED ENVIRONMENTS

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ACRONYMS

ARC	American Refugee Committee
AGOA	African Growth and Opportunity Act
COVOL	Cooperative Office for Voluntary Organizations of Uganda
CPA	Comprehensive Peace Agreement
CPU	Collection and Processing Center
COMESA	Common Market for Eastern and Southern Africa
DOR	Diocese of Rumbek
FOB	Free on Board
GNU	Government of National Unity
GOSS	Government of Southern Sudan
GPU	Grinding and Processing Unit
IDP	Internally Displaced Person
LLP	Lulu Livelihoods Programme
NCC	Nut Collection Center
NCP	National Congress Party
NPA	Norwegian People's Aid
NSLN	New Sudan Lulu Network
OFDA	Office of Foreign Disaster Assistance
SPLA	Sudan People's Liberation Army
SPLM	Sudan People's Liberation Movement

EXECUTIVE SUMMARY

Two related civil wars disrupted peace in Sudan from 1955 to 1972 and 1983 to 2005. Civil conflict based on deep cultural and religious differences has impeded the economic growth of the country and forced large-scale displacement of people within Sudan. Among the most strident of these contentious differences is that between the non-Arab populations living in southern Sudan and the Arab-dominated northern government. The more recent episode of civil conflict was sparked when President Gafaar Nimeiry began a campaign to transform the country into a Muslim Arab state, dividing it into three regions and instituting Islamic law. President Nimeiry declared a state of emergency and set up courts that rendered harsh judgments and still harsher punishments for petty crimes, such as amputations and public lashings.

In the same year, a mainly non-Arab rebel group based in the south was founded to fight the central government. The Sudan People's Liberation Army (SPLA), led by John Garang, attempted to achieve a new and united secular Sudan, or—failing this—to gain full independence for South Sudan. The dominance of an Islamic agenda by the northern governments throughout the 1980s and 1990s yielded little compromise, fighting with the SPLA continued, and economic collapse and political repression ensued.

Despite repeated regional attempts throughout the 1990s to broker a peace agreement in Sudan, the civil war continued until the signing of the Comprehensive Peace Agreement (CPA) in 2005. The CPA established a new government, the Government of National Unity, and the Government of the Southern Sudan with arrangements outlined for sharing wealth and power between the north and the south. It also provided for a 2011 referendum that would allow the South to decide for separation or unity. Although this marked the official end of the civil war, violence has continued and full implementation of the terms of the CPA has been problematic.

As a result of these decades of conflict, Southern Sudanese physical infrastructure is severely lacking, and despite increases in per capita income from oil production, much of the population still relies on subsistence agriculture and likely will remain below the poverty line for years to come. If, however, development initiatives focus on the commercial development of the South's rich agricultural potential, including its abundant and valuable natural resources, progress could be hastened. One such resource, the shea tree, the focus of this case study, presents an opportunity to increase incomes; local populations are familiar with its production and benefits, and the particular sub-species that grows in the southern region of Sudan has uniquely marketable qualities. Although the shea industry has grown significantly in West Africa, particularly since the 1950s, it has remained a village activity in the Sudan, until recently. In 2000 MEDIC, an international NGO, began the Lulu Livelihoods Programme (LLP) which, despite the decades of violence and lack of infrastructure, began the commercial development of shea butter products for local and export markets.

This case study forms part of a series of studies funded under a grant from USAID to examine the application of the value chain approach to economic development in conflict-affected environments. The research team set out to test the following hypotheses:

Hypothesis 1. Following protracted conflict and with near-total absence of market activity, basic support services or an enabling environment, the value chain approach can contribute to (re)building markets by providing a framework to i) identify industries with the greatest potential to compete and contribute to broad-based growth; ii) identify links, assets and points of intervention in the value chain; and iii) (re)build the external and internal markets in patterns that do not support the pre- and conflict-based predatory power dynamics.

Hypothesis 2. Horizontal and vertical value chain linkages can help connect conflict-affected economies with functioning markets by facilitating key missing functions, accelerating short-term impact, and transferring market information and technical skills from functioning markets.

Hypothesis 3. End markets can best be used to drive upgrading and value chain development through the transfer of market information if there is a mechanism or actor to receive this market information, linkages exist to transfer this market information down the value chain, and the value chain has the means to respond to this information.

Hypothesis 4. To contribute to the foundation of a market-based economy following protracted conflict and with near-total absence of market activity, basic support services and an enabling environment, strategic subsidies should focus on strengthening key or weak functions or actors in the value chain to achieve both quick results and increased competitiveness, and should be correlated with assumptions regarding the development of the value chain.

In order to test these four hypotheses, the research team studied the development activities carried out by MEDIC beginning in 2000. The program began on the assumption that a small-scale industry owned and managed by local women and vertically integrated from nut collectors and processors to wholesalers of shea products could generate increased income for producers and collectors operating in this war-torn area and develop rural and urban local, regional and international markets for shea butter. The study details the strategy pursued by MEDIC to cope with the ongoing conflict, high costs of maintaining operations in South Sudan and lack of basic infrastructure and a supportive enabling environment.

The research produced a number of findings, which are presented in detail in the final section of the case study and summarized here:

1. The most critical factors for selecting an industry in a severely conflict-affected environment are the possibility for short- and long-term competitiveness, the potential to provide equitable socio-economic benefits, an attainable link to a functioning market, the ability to build on an existing set of skills of the resident population and the potential to provide quick results.

2. An accurate assessment of existing and missing linkages of inputs to production and production to functioning markets is essential to begin to develop an industry in a post-conflict environment. This assessment should inform donor and industry development strategy and provision of strategic subsidies.

3. The end of a conflict may present a window of opportunity to use the value chain approach to indentify an industry that can be an alternative to past exploitive trade relationships. This can be achieved through the sustainable use of a natural resource, providing an equitable distribution of benefits of the development of the industry to value chain actors, connecting to appropriate market channels and taking advantage of opportunities for continued competitiveness while integrating marginalized actors.

4. In a post-conflict environment where many actors and services are missing and there is little remaining local capacity, developing an industry may be facilitated through hierarchal vertical linkages.

5. End markets can best drive upgrading and value chain development when an actor in the value chain is in direct contact with the end markets, information from the end markets can be passed down effectively and efficiently through the vertically integrated value chain, and there are sufficient resources in the value chain to use the information appropriately.

6. In a severely compromised post-conflict environment, long-term strategic subsidies are needed to build or strengthen the value chain functions and actors. While strategic subsidies are essential for building support services, the development of these support services in a severely compromised environment is too slow to

impact the industry in the short term. Therefore strategic subsidies are needed to bridge this development gap and strengthen the value chain actors and functions so that the industry can achieve quick results and increased competitiveness.

I. ANALYSIS OF THE POST-CONFLICT ENVIRONMENT

A. OVERVIEW

The Sudan Comprehensive Peace Agreement (CPA)[1] , signed in 2005, formally ended the world's longest civil war and one that produced the world's greatest number of displaced people.[2] A first attempt at statistical analysis of the effects of this conflict on the people of South Sudan, prepared by the New Sudan Centre for Statistics and Evaluation in association with UNICEF, indicates the following:[3]

- South Sudan's estimated 2003 population of 7.5 million is expected to grow to 12 million by 2009, a result of both a high birth rate and returning refugees.[4]
- The population of South Sudan is the youngest in the world with the highest proportion of children under five, but with a low proportion of adults due to the civil war and famine.
- The children of South Sudan have the least access to primary education in the world (20 percent), the lowest rate of female to male enrolment (35 percent), and only 7 percent of the teachers are trained.
- South Sudan is second only to Niger in having the lowest adult literacy rate (24 percent), adult female literacy rate (22 percent), and youth literacy rate (31 percent).
- Wasting among children under five is the highest in the world (21.5 percent) and the rates of general malnutrition (48 percent) and severe malnutrition (21 percent) are critical.
- About one-third of the population does not have access to salt and the level of Vitamin A supplementation in children (16 percent) is among the worst in the world.
- 90 percent of the population earns less than $1 per day, making South Sudan one of the poorest countries in the world.

The protracted conflict has also severely impacted the physical infrastructure of South Sudan. There are zero kilometres of tarmac road in South Sudan, few roads that are passable year round, and many roads still mined. Until mid-2006, public road transport was unavailable, and it is still limited, prohibitively expensive for most Sudanese and interrupted during the rainy season. Until early 2007 there were no public electrical facilities in any South Sudan town except Wau, and since then public electricity has been put into service only in the capital city of Juba. There is no telecommunication system linking South Sudan within and to the outside, and only since the last half of 2007 have mobile phone companies begun to offer service in the largest urban centres (Juba, Wau, Yei, and since early 2008,

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[1] Self determination and unity are the joint principles of the Sudan Comprehensive Peace Agreement (CPA) that ended the civil war between North and South but did not include Darfur. The CPS was signed on January 9th, 2005.

[2] The civil war forced an estimated 600,00 Sudanese to seek refuge in neighboring countries, and displaced 4 million others within Sudan, *Bureau For Democracy, Conflict, and Humanitarian Assistance (DCHA), Sudan - Complex Emergency, Situation Report #5, FY 2008, USAID.*

[3] *Towards a Baseline: Best Estimates of Social Indicators for Southern Sudan*, May 2004, New Sudan Centre for Statistics and Evaluation in association with UNICEF.

[4] Since the CPA was signed, 850,000 southern IDPs and 66,300 refugees have returned and an additional 605,000 Sudanese are expected to return in 2007. *From Relief to Development: Towards a USAID Food Security Strategy for Southern Sudan*, August, 2007

Rumbek). The establishment of banks and the introduction of the 'New' Pound currency in late 2006 partially overcame the previous problems of multiple currencies and insufficient notes in circulation, but the banking system extends only to county headquarter towns, and the New Pound cannot be used everywhere.[5] Until late 2006—with the opening of Juba and the establishment of the Government of South Sudan (GOSS) in other select regional towns—there were no usable permanent structures and construction or rehabilitation has been slow due to the lack of skilled tradesmen and materials. The vast majority of the population of South Sudan still lives and operates out of mud and thatched buildings and there are almost no permanent storage facilities. At the signing of the CPA there were no manufacturing facilities or operations in the South and, as of the end of 2007, the only new manufacturing is the production of plastic water bottles.

The GOSS is now two years old and has replaced the New Sudan[6] government. It is facing the daunting task of creating the new government's structure, legislation and policy, and the implementation of these throughout the South. Ministers, state governors and county commissioners are appointed by the Sudan People's Liberation Movement/Army (SPLM/SPLA), while Payams and Bomas[7] freely elect their administrators. Salaries and local budgets were not available before, and at the signing of the CPA for this multi-layered government structure all labor was voluntary. Since the CPA, the GOSS has received substantial revenue from oil revenues and donor support (approximately $2 billion in 2007), but still few salaries have been paid to the civil authorities at the local and municipal levels, and much of the revenue has been looted. Recently there have been some high-profile changes in the GOSS due to corruption, but the task of rooting it out is formidable.

Sudan has yet to ratify its new constitution, despite pressure from the very active parliament in Juba to conclude the process. In the meantime, key national policy issues regarding North-South borders, land rights, oil revenue sharing, banking and finance, and the ownership and use of natural resources remain outstanding, and the tension between the Government of National Unity (GNU) and the Government of South Sudan (GOSS) is mounting over these issues.[8] Unless pressure is brought to bear for more rapid implementation of the CPA, the risk of losing the agreement remains extremely high.

According to a recently completed USAID food security report, [9] while there has been a dramatic recent expansion in the scale and scope of market activity in South Sudan, this activity both "risks distorting markets and price relationships" and "masks a number of structural impediments to market performance," such as unclear or arbitrarily applied tax and customs duties policies, a lack of a bureau of standards to set or enforce uniform standard weights and measures, and a lack of public financial services for producers, traders or transporters. There is a "general lack of institutional support for the market promotion of local food crops, specialty crops, livestock or fish" and inadequate technical and infrastructural services for the storage and transport of crops. Rural traders are at a particular disadvantage due to their lack of information regarding outside markets and trends, and larger traders and officials are taking advantage of this lack of market information by attempting to control or manage prices. While heavy cross-border traffic of people and goods continues to increase between Southern Sudan and Northern Uganda, Kenya and Democratic Republic of the Congo (DRC), and North-South trade is somewhat revived, this trade is mostly a one-

[5] Even as late as February 2008, the New Pound cannot be used in the southern border county of KajoKeji.
[6] The old New Sudan Government comprised southern Blue Nile, Nuba Mountains and all of what is now included in South Sudan operated prior to the signing of the CPA.
[7] The Interim Constitution of the Southern Sudan (ICSS) established the Central, State and Local Governments. At the Local Level, the County is the lowest level of corporate government. Each County is made up of Payams, which are made up of Bomas, which comprise a few to several villages. A unique aspect of the ICSS Is that It formally Integrates traditional authorities by giving them jurisdiction at the level of the Bomas.
[8] The CPA established a constitutional framework dubbed: "One Sudan, two systems." One system governs the North, the GNU, with some powers extending to the South, and the other system presides over a basically autonomous South, with its own bank, and currency, Army, Executive, Legislature and Judiciary.
[9] From Relief to Development: Towards a USAID Food Security Strategy for Southern Sudan, August 2007

way flow, seasonal, and primarily financed by aid and oil. Agricultural production relies on traditional methods using low-productivity inputs, hand tools and inefficient techniques. Few South Sudanese rural households produce exclusively for the market as the markets are too small, thin or distant. In addition, poor roads make markets inaccessible during the rainy season, and there are little, or only very expensive, private transport services the rest of the year.

The human resource capital in South Sudan has been enormously compromised by two generations of war, during which few people had access to education or training, and now lack marketable skills or experience in a modern economy. Lack of these marketing and vocational skills among the majority of the population limits spontaneous business expansion and the ability to respond to market opportunities. While there is hope that the Diaspora will return to South Sudan, bringing with them much needed skills and experience, there is a reluctance on the part of those living in Kenya, Uganda and elsewhere abroad to leave the educational opportunities available to their families in these countries. Many of those who have returned are recruited by the national government to fill roles in the capital city or are uninterested in working in remote rural areas with few services.

B. CONFLICT ASSESSMENT FRAMEWORK

1. INCENTIVES OR MOTIVES FOR PARTICIPATION IN VIOLENCE

ETHNIC OR RELIGIOUS GRIEVANCE

The causes of conflict in Sudan need to be viewed in terms of both the North-South conflict and a South-South conflict. One of the principal historical reasons for the protracted conflict between the North and the South can more accurately be called racist than ethnic, i.e,. Arab Islamic supremacy. [10] Religion galvanized the positions of North and South, especially since the 1989 coup, which brought the Islamic fundamentalists into power. Since that time, religion has fueled the conflict enormously, through such activities as the confiscation of Christian church properties and land in Khartoum, and the intentional bombing of Christian churches and hospitals in the South. The large Southern displaced population in Khartoum, living in squalid conditions and subjected to constant internal security harassment, as well as similar persecution by the same Northern security apparatus in the Southern garrison towns, further intensified the division between Northerners and Southerners. As a result, opposition to the 'Arabs' in the North, and their religion, has grown deeper.

Within the South, much of the current conflict is strictly ethnically based, an historical phenomenon exacerbated by the war itself. As large groups of people were forced to migrate and take up residence in areas outside their traditional lands and with ethnic groups different from their own, conflicts over land, grazing rights and water use escalated.[11] Much of the conflict in the South since the CPA has been the result of these ethnic groups moving back to their traditional geographic areas and the ensuing contestations over boundaries, land and water rights.[12] As this movement of returnees continues, areas of conflict will persist until land rights are legislated and tribal borders and local agreements by ongoing local peace-building initiatives are established. Additionally, the ongoing and projected return

[10] Many Northern Sudanese are the product of the ancient mixing between the Arab world and indigenous Africans. While they combine many elements of African culture, they are among the most devout of Muslims. But their historical assimilation of racial perceptions continues to fuel fierce conflicts of identity among Northerners and a distain for Indigenous Africans—still referring to them as *abid* (slave).

[11] This also served to unite ethnic groups on a small scale as marriages between ethnic groups who earlier did not mix in marriage took place during the conflict.

[12] Examples are the intra-clan clashes of the Nuer in Upper Nile and Jonglei and the clashes between the Jur Belle and Dinka, and the Dinka and Moru, in Western Equatoria and Lakes.

of IDPs and refugees—from the North, from the garrison towns, and from neighboring countries—will continue to drive this incentive for conflict as more people attempt to find land and livelihoods in traditional areas that may or may not accommodate their needs. A new potential area of conflict has arisen as a result of the Darfur emergency as many of the people of South Darfur have migrated into the Raja ethnic lands in Western Bahr al Ghazal to escape the violence.

Ongoing incentives for South-South conflict also reside in the perceived unfair control of power by the major ethnic group in the South, the Dinka, and the concern that power will not be fairly distributed in the new government among the smaller ethnic groups. While this was an early perception of Salva Kiir's administration,[13] recently his administration has shown a readiness to address the issues of balance and fairness through a broader base selection of appointees in the nascent GOSS, which may defuse this particular incentive if continued.

ECONOMIC CAUSES

After its discovery, control over oil became a central source of the North-South conflict, marking the first time that extractive economic relationships emerged as a major source of conflict in Sudan. But oil is only the most recent episode in a long history of economically based North-South animosity. Southern Sudan has confronted the problems of exploitation, predation and dependence throughout all of its trade history—from slaves and ivory to oil. With Sudan's independence in 1956, a trading cartel controlled by the economic elite in the North came to dominate the economy of the South. The northern merchants *(jellaba)* specialized in exploiting market opportunities for essential consumer goods and seldom bothered with productive activities. Instead they preferred to accumulate from the high returns on Khartoum-supplied essential goods, while also, to a lesser extent, extracting the highly valuable teak and mahogany stands. There was little interest, disposition or competency on the part of this merchant class to commercially develop any productive industry in the South. The bulk of the income earned by this cartel came from their control over transport and the wide buy/sell spreads on essential goods.[14] Additionally, since the 1970s, southern migrant labor has provided most of the work force for the large agricultural schemes in the North. During the conflict, extraction of natural resources (teak, bamboo, mahogany) continued by both northern traders and the military, including the SPLA, which extracted more teak and mahogany during its control of Western Equatoria than the *jellaba*.

The conflict over the oil resources of Sudan is particularly evident in the oil-producing states, which not coincidentally are also the North-South border states. This area continues to be very unstable with ongoing confrontations between North-South armed forces. The potential for further conflict also resides in the CPA-mandated control of the collection and distribution of the oil revenue by the GNU.[15] Issues over the timeliness of distribution, deductions from those distributions and transparency in the amounts collected are areas of potential North-South conflict. The distribution of oil revenue within the South is also an area of potential conflict, as expectations of the resulting benefits among the population are high and the GOSS infrastructure is not yet able to distribute revenue from the central government to the county level. GOSS civil servants in all sectors at the state and county centers far from Juba are not receiving regular salaries.

While access to the oil revenue is predominately a North-South conflict issue, access to economic opportunities within the south, or the lack thereof, may become an important motive for potential South-South conflict. As the

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[13] Salva Kiir became President of the GOSS and Vice President of the GNU upon the death of Dr. John Garang in a helicopter crash only months after the signing of the CPA.

[14] The buy/sell spreads on essential goods were exorbitant: A sack of dura paid to farmers by *jellaba* traders, then sold to urban consumers in 1986 was as high as 1/40.

[15] While the South hoped to have control over either the GNU Ministerial position of Finance or Petroleum, both these positions went to the North, leaving the South with no way of knowing or verifying actual revenues.

euphoria with the end of armed conflict passes, more pressure will be put on GOSS to provide the missing services and incentives that promote employment and economic growth; the demobilized SPLA soldier as well as the youth generally are key constituents who must be given special attention in order to integrate them into the developing economy. Whether GOSS can ramp up to these demands is uncertain. While it is unlikely that there would be a return to the pre-war northern-dominated economy of the South—too much residual mistrust of the North persists—there is the potential for other outside actors, from Africa and abroad, to attempt to replace the northern exploiter with unequal exchange relationships persisting into the future.

COMPETITION OVER NATURAL RESOURCES

While control of the oil resource is the major area of potential North-South conflict over natural resources, the potential area of conflict in the South is whether the GOSS can provide the facilities to tap, for the economic benefit of the people of the South, the other abundant natural resources that are present: vast fertile agricultural land, immense livestock populations, extensive natural forests and tree plantations, abundant fishing grounds, exotic wildlife and valuable minerals. The lack of infrastructure and services resulting from the protracted conflict will retard easy or rapid development of these natural resources by the people of the South. While many legitimate transparent commercial actors will be dissuaded to invest, others less scrupulous may gain exploitive contracts, as has already been seen in the disappearance of the teak plantations, to the detriment of the resource and the local communities.

DESTABILIZING DEMOGRAPHIC SHIFTS

The return to South Sudan of IDPs and refugees constitutes a significant potential incentive for future South-South conflict due to the current and projected size of this population and its impact on the scarcity of food, housing and economic opportunities in South Sudan. This potential conflict arena will be further provoked by the current lack of physical infrastructure, land rights legislation, water agreements and essential public and social services in the South. This could lead to more intra-ethnic conflict in rural areas and inter-ethnic conflict in urban areas. Given the scope of the need and the lack of capability within the GOSS, it is doubtful that any of these issues will be resolved in a timeframe short enough to provide for the needs of this returning population. It is also realistic to assume that a significant portion of this returning population will add to the existing migration of the rural population to the few urban areas on South Sudan, putting increased pressure on the existing lack of infrastructure and further highlighting the lack of GOSS ability to provide public welfare and economic opportunities within these urban areas. GOSS and UNHCR, especially, are slow in developing any large-scale coordinated plan to address such a formidable challenge.

ELITE INCENTIVES TO CAPTURE OR MAINTAIN POLITICAL OR ECONOMIC POWER

The desire to maintain power by the pre-CPA elite in both the North and South is an ongoing potential source of conflict. There is pervasive mistrust in the South of the willingness of the power elite in the North to share political or economic power with the South, and recent moves by the National Congress Party (NCP) to expand their power base in the Northern government has deepened the distrust. Additionally, the transition from a rebel-army controlled territory and the incumbent power elite in that organization to a democratic and representative government in South Sudan is a potential area of South-South conflict. While the pre-CPA power elite—the SPLA commanders who were both the military and civil leaders during the conflict and are often representative of specific ethnic groups—have been largely incorporated into ruling positions in the newly formed GOSS, there is a growing recognition that many of these men are unsuited for these positions. The widespread reports of graft and corruption in GOSS following the first disbursement of oil revenues and donor funds has put pressure on the current executive to make key changes in the existing GOSS elite; the Minister of Finance was recently replaced due to his reported involvement in graft. To the extent that GOSS begins to eradicate corruption, or remove from power those responsible, a corresponding reduction in the incentives for conflict around this issue can be expected. The recent formation of an Anti-Corruption

Commission and the drafting of a new legislation for a Public Financial Management Act are essential and encouraging steps in fighting this vice.

2. CONFLICT MOBILIZATION AND EXPANSION DYNAMICS

ORGANIZATIONAL FACTORS THAT FACILITATE COLLECTIVE VIOLENCE

A combination of several factors provides fertile ground for mobilizing existing South-South conflict motives. The current national government is unable to deliver essential public and social services. The existing power elite is predominately affiliated with specific ethnic groups, and there are few local cross-ethnic organizations or associations.

ACCESS TO FINANCIAL RESOURCES BY GROUPS/ENTITIES INVOLVED IN DRIVING THE CONFLICT

With regard to the North-South conflict, the revenue that is returning both to the North, and more recently to the South, from the oil resource[16] represents an unknown, but clearly significant, amount of money that could be used to fund further conflict. The North has also received considerable funds from China to build, equip and train its military, and funds have been received by the South from other governments—including the United States—for the same purposes. Regarding South-South conflict, a presumable source of funds that could be used to fuel this conflict is in the hands of the individual members of the power elite who have profited illegally from the recent influx of oil and donor funds.

HUMAN RESOURCES ENGAGED OR AVAILABLE FOR CONFLICT

Although officially downsized, the recognized armies of both the North and South are still on alert and both have been accumulating military hardware in the period since the CPA. Unofficial military bodies on both sides are still mobilized and those SPLA soldiers who have been demobilized are still strongly associated with the current SPLA and would be available to re-enter a North-South conflict, or line up with their particular ethnic group in a South-South conflict.

3. INSTITUTIONAL CAPACITY OF STATE AND CIVIL SOCIETY ACTORS/ENTITIES TO RESPOND TO CONFLICT

Whereas the Khartoum-based Government of Sudan has had the ability to control many of the incentives for internal conflict, the current Government of South Sudan has only recently, with its little capacity, begun to address, manage and constrain some of the noted incentives for renewed conflict and violence. One remarkable achievement of the current GOSS administration has been the successful reconciliation with and absorption of all but one of the Khartoum-supported Southern militias, with the one holdout becoming ever more isolated. Another positive signal is the progress being made by the SPLM to build a national political party ready to participate in national elections. The Deputy Party Chairman who is to organize the SPLM party in the North—a highly respected and decorated military commander and political leader from the Nuba Mountains—was recently persuaded to return from self-imposed exile to fill this post, an example of Salva Kiir's reconciliation abilities. But the ability to reconcile and address incentives for violence and to manage internal and external pressures must not ultimately stand on the abilities of one man, or even several, if Sudan is to avoid future conflict and forge a peaceful future.

[16] Because the North is not required to disclose oil revenues, it is not known what they retain of the total earnings. The 2007 budget for the South is $1.536 billion, the majority of which derives from their share of the oil revenue, as calculated by the North.

4. REGIONAL AND GLOBAL FACTORS AFFECTING CONFLICT DYNAMICS

EROSION OF STATE SOVEREIGNTY

The National Congress Party has ruled Sudan since the military coup of 1989, and it has ruled with an iron fist. Throughout its coercive tenure, its sovereignty (only a diplomatic courtesy) has been by might. It intensified the war in the South, opened the Darfur front, and continues to direct and support violent operations there. It also provides substantial resources to the ongoing but relatively little-publicized Beja resistance in East Sudan. The jockeying for power in the NCP since the death of Dr. John Garang has restored the NCP 'hardliners,' whose position has consistently been against the CPA. At the same time it has marginalized those in the North who saw that the only way forward was through a coalition government that included the SPLM, the NCP and other parties. Though a resumption of war would be disastrous for both sides, with incalculable costs, it should not be ruled out as an option that NCP hardliners would pursue, given the immense amounts of oil revenue at stake and their growing military strength, based in part on support from China and other interested parties. There is also growing opposition to the NCP within northern Sudan, which, in addition to potentially destabilizing the current implementation of the CPA, could fuel new conflict as a result of the political agenda of these opposition groups.

The GOSS, as a new and still forming democratic institution, is weak and underdeveloped. While making a demonstrable effort to include the various ethnic groups of South Sudan in its formation and an ongoing attempt to decentralize functions to the state level, GOSS is currently unable to provide the economic institutions and practices that encourage growth, protect property rights, create jobs or shield the economy from shocks. It is also currently unable to provide basic security to its citizens in many locations in the South. The SPLA's capability, however, has grown significantly since the CPA—like the North, largely through outside support—and is now a more formidable force than it previously was, and possibly strong enough to deter the North from resuming the war.

Much will depend on the international community's commitment to salvaging the CPA while pursuing a tougher solution for Darfur.

ARMS FLOWS

In addition to the proliferation of arms residual from the termination of the conflict, it should be assumed that, although there is no estimate of the number of small arms and light weapons in either North or South Sudan, there is easy availability and trade in both.

5. WINDOWS OF VULNERABILITY FOR CONTINUATION OR RESURGENCE OF VIOLENCE

The growing control of the northern government by the anti-CPA hardliners, leading to the perceived or de-facto withdrawal of support for CPA implementation, or the easing of political pressure from international organizations for its continued implementation, would both present windows of vulnerability for renewed North-South violence. A downturn in the price of oil would create a period of economic instability and adjustment for the North and the South, which both rely on it for their continued operation, creating a window of vulnerability for renewed conflict. A stagnation or breakdown in the oil-revenue sharing component of the CPA would constitute another window of vulnerability, as would a clear move, at any point in time, by the South to secede. A decision regarding the 'ownership' of the contested oil-rich border states would present another window. And, the failure of GOSS to quickly bring development to the South will influence the run-up to the first scheduled elections in 2008, exacerbating the ever-present vulnerability of election times and the potential for a resumption of North-South or new South-South conflict at that time.

6. CURRENT CONFLICT TRENDS/ANTICIPATED CONFLICT DYNAMICS IN THE NEAR FUTURE

GENERAL ATMOSPHERE IN RELATION TO THE STATUS AND DYNAMICS OF THE CONFLICT

While it appears that many of the incentives and resources are in place to trigger renewed or new conflict in Sudan, be it North-South or South-South, there is simultaneously great hope and desire for peace among the people of South Sudan. They are particularly proud of the opportunity peace presents to create a self-ruling new democracy in Africa, and will not easily jeopardize this long-awaited opportunity.

GEOGRAPHIC AREAS OR POPULATIONS PERCEIVED TO BE A HIGHER RISK FOR RESURGENCE OF CONFLICT

The oil-bearing North-South border states and the regions bordering Darfur are most at risk, for the above-cited reasons, for resurgence of North-South conflict. Within the border states, the areas surrounding Dinka traditional land in Abyei, are the areas most at risk to a renewed North-South conflict.

II. VALUE CHAIN ANALYSIS

A. VALUE CHAIN SUMMARY

In South Sudan, indigenous plant species are of great nutritional and traditional value. One of the more important species is the shea tree, *Vitellaria paradoxa* ssp. *nilotica* (Butryospermum paradoxum subsp. niloticum). Known throughout Sudan by its Arabic name of *lulu*, the tree is a deciduous savanna hardwood that grows naturally and abundantly throughout much of the Bahr el Ghazal and Equatoria regions of South Sudan.[17] These areas are part of a narrow band of wooded savanna extending almost 5,000 km from Ethiopia, southern Sudan and northern Uganda, westward to Ghana, Mali and Senegal.[18] There are two known sub-species of the *Vitellaria* that occupy this band of savanna. The population of the western sub-species *paradoxa* extends from West Africa to the western Mali reaches of the Nile basin. From this boundary grows the distinct eastern sub-species, *nilotica*. In West Africa, the shea tree has been exploited commercially for over 100 years. Every year, thousands of tons of raw shea nuts are exported to factories in Europe and Japan for the industrial extraction of shea butter, with the lion's share of profitability remaining in those importing countries. Throughout this time, the shea forest in Sudan has lingered undeveloped, first as a result of colonial and post-colonial trade policy (see Conflict Analysis section), and later as a result of the long civil war which destroyed the minimal infrastructure that existed prior to the conflict. As a result, the shea tree has remained something of the 'village,' a resource that provided modest household income and food security for the rural population, especially important in war-afflicted South Sudan.

The largest part of the international shea butter market is for use in the food and confectionary industry. This market has been in existence for many years and is the primary market for West African shea butter. The international demand for shea butter began at the turn of the last century as a cheap alternative source of vegetable fat; in more recent years there has been an increased demand from the European confectionary producers for use as a cocoa butter equivalent. The EU has recently set a 5 percent limit on allowable non-cocoa fat additions to chocolate, shea butter being the first preference because of its high melting point (about 30 degrees Celsius), and its cocoa-complementary flavor. The primary and established source of shea butter as a cocoa butter equivalent is in West Africa, where the hardest shea butter originates, particularly the Mossi plateau region of Burkina Faso. Areas on either side of this zone vary with increasing softness in texture, which yields a smooth creamier butter, or even liquid oil, as in northern Uganda.[19] Most companies want nuts that they process themselves, and the shea butter they do purchase directly undergoes a refinement process.[20]

In recent years, with growing awareness of the beneficial properties of shea butter for the skin, the market for West African shea butter in the skincare and cosmetic industry has grown from less than 200 metric tons in 1994, to 4,500 metric tons in 2005. While this market still represents only 5-10 percent of the total exports of African shea butter, it

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[17] Preliminary research indicates the shea forest covers approximately 100,000 square kilometers, or up to one-sixth of South Sudan.

[18] See Appendices I and II for maps of the shea butter stands in Africa and South Sudan.

[19] The fatty acid composition of shea butter is dominated by stearic and oleic acids, which together account for 85-90 percent of the fatty acids. The relative proportions of these two fatty acids produces differences in shea butter consistency. The high stearic acid content gives the shea butter its solid consistency, while the percentage of oleic acid influences how soft or hard the shea butter is. The proportions of stearic and oleic acids in the shea kernels and butter differ across the distribution range of the species with Ugandan shea butter having a consistently higher oleic acid content, and is liquid at warm ambient temperatures. The proportion of stearic to oleic acids in Sudanese shea butter on average lies between the extremes of West Africa and Uganda, and yields a consistent softer creamier texture, but also with some substantial variation of stearic/oleic proportions across the shea range (see http://www.prokarite.org/vitellaria-dbase-EN/index-EN.html)

[20] Refinement usually includes bleaching and deodorizing of the shea butter.

is growing at an estimated 26 percent annually. It is also a more lucrative market than the food industry, with prices paid up to 1,500 percent higher than prices paid for shea butter by the food industry.[21] But the shea butter with a higher stearic content derived from the West African *paradoxa* variety is less suitable for this growing market due to its hardness, which makes it more difficult to use in cosmetic formulation, and due to the fact that it is usually chemically bleached and deodorized prior to its use. The higher oleic content of the East African *nilotica* sub species, however, is very well suited for this market. A small amount of high-quality cold-pressed *nilotica* shea butter was being produced by COVOL (Cooperative Office for Voluntary Organizations of Uganda) at the Northern Uganda Shea Project in the late 1990s and a limited amount of this shea butter was being sold to the international cosmetic market under the brand names *Nilotica Botanicals* and *Source Botanicals*, but there was no attempt to develop the vast shea forest resource in South Sudan. All of the shea butter being produced in South Sudan prior to MEDIC's involvement in 2000 was produced by individual households using traditional methods,[22] and was inappropriate for both the food industry and the cosmetic industry.

MEDIC's selection of the shea butter industry for value chain development in South Sudan was based on six factors:

1. The abundance, extensiveness and underutilization of this natural resource in Sudan.
2. The growth in value of shea butter with the increasing demand for its use by international cosmetic companies, coupled with the mounting interest for the softer *nilotica* sub species.
3. Its potential to fulfill a large part of the nutritional needs of the people of South Sudan in the form of a highly nutritious edible oil.
4. The availability of an improved cold-press technology package suitable for small-scale operations.
5. A MEDIC-conducted assessment that confirmed the crucial historical role of women as the primary guardians of the tree and of family food security, and thus the opportunity to impact the livelihood and security of rural women in Sudan. [23]
6. A window of opportunity to promote important cross-cutting themes: the right to local ownership of the natural resources in South Sudan, the right of South Sudanese to be the beneficiaries of the development of these resources, the conservation of the shea forest, the capacity development and empowerment of rural women through their involvement in a lucrative value chain, and the development of transparent and equitable trade relationships.

With the prospect of a peace agreement and with the hopeful support of local authorities—but without their interference—MEDIC felt the environment was conducive, though not without risk, to embarking on developing a small-scale industry that was owned and managed by local women and vertically integrated from nut collectors and processors to wholesalers of lulu products. From the start, MEDIC's intent was to establish an alternative model to the West African shea industry, which is dominated by middlemen and high- and low-value international buyers, and where the collectors of nuts and processors of oil receive the lowest share in the final value of the product and have little influence over the terms of exchange in the market. In Sudan where no shea industry existed, the structural option taken by MEDIC and the LLP took was based on a combined 100 years of experience of its four expatriate staff living amongst Southern Sudanese and knowing they yearned for the day when they could own and develop their

[21] While shea butter exported for the food industry sold at $200 per metric ton, according to WATH Technical Report No. 2, November 2004, cosmetic grade shea butter exported to the US sold for $3,000 per ton.
[22] The traditional Sudanese processing method, which involves boiling the nut paste to extract the oil, produces an oil which is dark and pungent and with a shelf-life of only 3-4 weeks.
[23] See Appendix III for a copy of the Lulu Assessment, 2000

resource heritage, but with little capacity to do so. MEDIC decided to test a model that addressed this yearning, while providing the vision and guidance missing in this severely compromised environment.

Some critical challenges faced the early development of the value chain in South Sudan in 2000. Still at war with the North, there was no organized governmental structure at the state or national level, no banking system, no telecommunications, no year-round passable roads, little cross-border transport with outside markets or suppliers and no industry or support service providers within South Sudan. To begin the development of a new value chain in this environment would require:

- providing the technical training in the improved methodology;
- organizing, equipping and supplying production units around this technology;
- developing quality control systems to ensure the product was marketable;
- involving and gaining the support of the local and regional power elite;
- finding or creating markets for the product and getting the product to those markets;
- ensuring the women producers would earn enough revenue in the initial stages of the development of the value chain to recognize the potential impact on their livelihoods;
- clearly defining the industry structure and communicating that structure to all stakeholders;
- gaining the commitment of strategic members in each local community (civil organizations, NGOs, traditional leadership) to support the initiative in their area; and
- a long-term commitment on the part of those behind the development of the value chain.

In addition to MEDIC, there were several other NGOs interested in participating in the development of the value chain in 2000.[24] Together with these NGOs, MEDIC embarked on the initial training of South Sudanese women in the improved technology offered by the COVOL project in northern Uganda, and established two MEDIC-supported rural processing centers in Bahr al Ghazal. The training and technology proved effective and, by the end of 2002, MEDIC had established 16 additional processing centers in Bahr al Ghazal with the purpose of expanding the potential economic benefits to a broader group of rural women. All of the oil produced in 2000-2002 was sold into the local markets in South Sudan at highly subsidized rates to demonstrate to local and regional stakeholders the potential economic impact of the development of the shea butter industry in South Sudan. Recognizing the limitations of the local economy and the need to expand the market for Sudanese shea butter, MEDIC began, at the end of 2002, to export limited amounts of the cosmetic-grade butter to Kenya, where it was believed there was a viable market. A small formulating and packaging facility, made up of Sudanese refugees, was established in Kenya to support the development of this market, and retail packaging was designed and produced. In 2004 Kenya Bureau of Standards Certification was secured, and Lulu Works Trust was registered with the pre-CPA New Sudan government to legitimize the rights of the then 40 rural processing centers established across the shea belt in South Sudan.

By the signing of the CPA in early 2005, MEDIC was the main remaining NGO supporting the lulu value chain; all of the other early actors had dropped out as a result of the high cost—both in terms of money and management—of maintaining operations in South Sudan and the long time-frame to sustainability of the endeavor. MEDIC continued to function as the support services supplier and provided the necessary value chain management and liaison with markets. By coordinating the purchase and marketing of all production on behalf of the local processing centers,

[24] Norwegian People's Aid, Concern, International Rescue Committee, Catholic Relief Services and Christian Aid

MEDIC was able to negotiate fair trade prices in the end markets. The markets for lulu products in South Sudan were still depressed, due to the lack of purchasing power and market activity everywhere, but the market in Kenya was emerging; a marketing and sales office was opened in Nairobi to further develop this market and to pursue international sales. In 2006, Lulu Works Trust was registered in Kenya and a trademark for Sudanese shea butter products was secured.

While improvements in the physical and business infrastructure in South Sudan were noticeable in 2007, and cross-border trading with Uganda and Kenya had increased significantly, there was still no actor, other than MEDIC, at the local, regional or national level to support the value chain development. With the expansion of GOSS capacity, more interest was being shown in Juba regarding the development of the industry, but a lack of national legislation over the ownership and use of natural resources, and trade policy in general, still precluded any clear support from GOSS—and likely functioned to dissuade other actors from entering the chain. MEDIC continues to provide the support services for the value chain and coordinates the marketing and sales of lulu products.

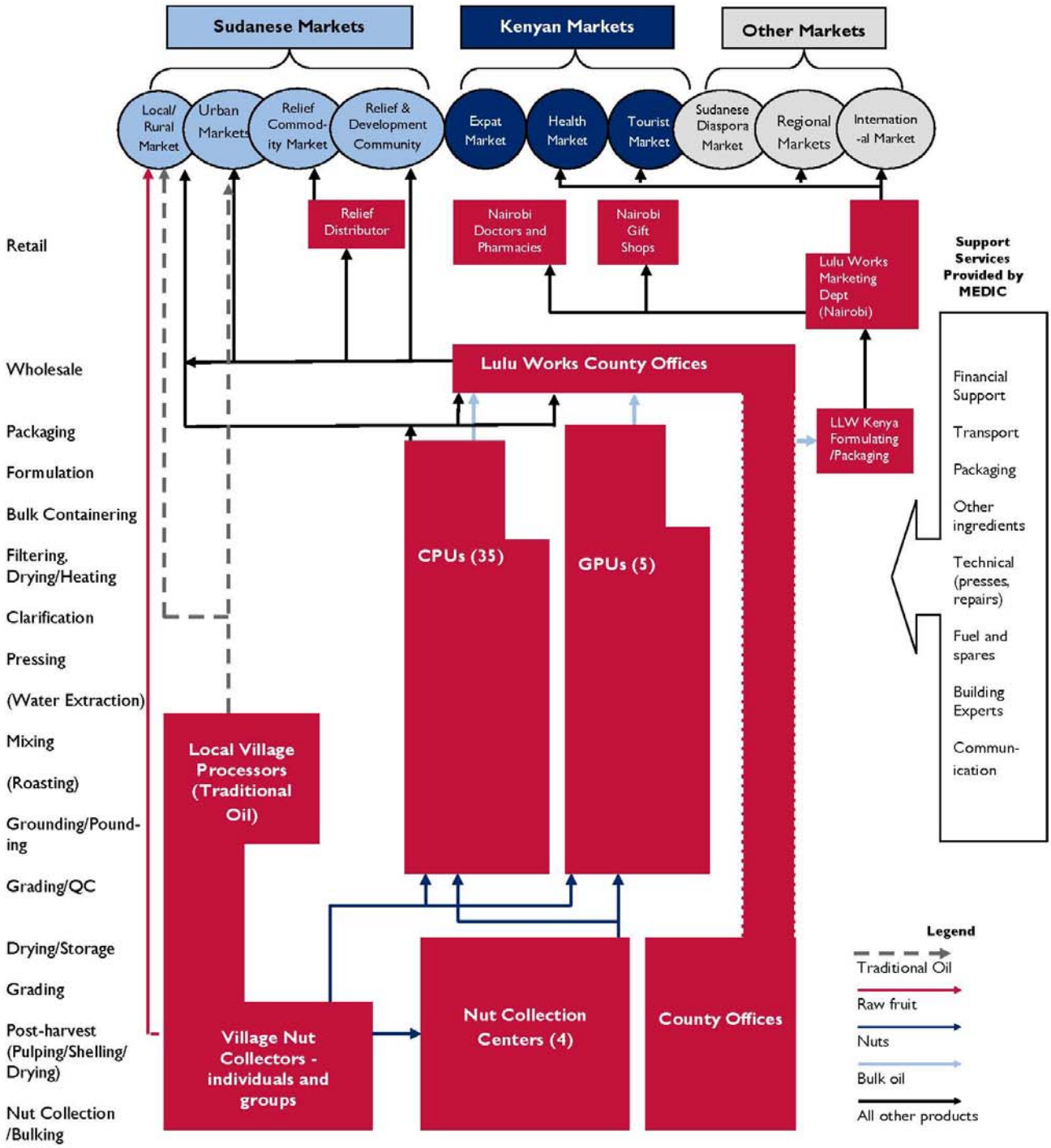
The long-term development strategy of the lulu value chain is predicated on the continued growth of a business-enabling environment and the support service sector in South Sudan, thereby lowering operating costs and facilitating access to markets and market information; the increased capacity of the industry members to operate and manage the industry fairly, effectively and efficiently; and an upgradeable competitive advantage in profitable end markets. The short- and mid-term development strategy of the value chain has the following objectives:

- Increase income going to the current nut collectors and the women of the Lulu Works oil processing and formulating groups.
- Subsidize the markets for cooking oil and soap in South Sudan while the infrastructure and support services develop, the current distortions in the marketplace adjust, and individual purchasing power increases.
- Turn over support services now provided by MEDIC to outside actors as those actors become available.
- Develop the rural South Sudan markets and the nascent but promising urban markets, first in Juba and Khartoum, to reach $133,650, or 11 percent of total sales by 2011.
- Expand the established market in Kenya for *Lulu Life* skincare products to reach $400,950, or 33 percent of sales by 2011.
- Aggressively pursue the US market for *Lulu Life* skincare products to reach $680,400, or 56 percent of sales by 2011.

B. VALUE CHAIN MAP

See Figure 1.

Figure 1. Value Chain Map



C. NARRATIVE DESCRIPTION OF VALUE CHAIN STRUCTURES AND DYNAMICS

1. END MARKETS

MEDIC's marketing strategy took advantage of the consistently robust traditional markets and focused on development in the domestic and regional markets. Although Sudanese markets were not expected immediately to be major markets due to ongoing violence in larger towns and limited personal income, MEDIC prioritized these markets and sold most of the first two years' production in Sudan at subsidized prices. Though sales of lulu in both Khartoum and in Juba and Wau have increased since the CPA and are expected to continue growing, domestic market development will still be constrained by low incomes and the price-depressing effects of relief supplies.

From 2002, Kenya was also given priority as the nearest functioning market, and the growth in sales achieved has been a function of aggressive marketing. Selling into the wider international market was a secondary priority during the last seven years because of MEDIC's limited capacity to investigate and pay the costs of penetrating that market. Though many initial contacts were made in Japan, Europe and the United States little happened until Swahili Imports became a US distributor of Lulu Works products, and AGOA chose to support Lulu Works. Developing this market has become a new priority.

THE INTERNATIONAL END MARKET

As described above, the *nilotica* sub-species of the shea tree that grows in South Sudan is preferred by the skincare and cosmetic industry for its softer, easier-to-formulate texture. MEDIC began to receive inquiries from potential international bulk buyers as early as 2004, but was not in a position to respond, as the quantities of shea butter coming out of South Sudan were too small to fulfill theses requests and the future supply too unpredictable. Although Lulu Works is now in a position to provide a certain amount of bulk product, it is uncertain as to whether the established price structure for bulk product will support the Lulu Works model of equitable distribution to the women producers. The Lulu Works marketing office is pursuing a few leads that seem promising, but MEDIC believes the better alternative at present is to seek exclusive outlets for Lulu Life retail products in the international market.

New York International Gift Fair with EXTRACT, a natural beauty product fair, confirmed that a market exists in the United States for products made from 100 percent pure shea butter.[25] While shea butter is a popular ingredient in many skincare products, very few brands (L'Occitane, Organics) offer 100 percent shea butter. A number of US retailers have expressed interest in stocking Lulu Life products because they are both unique (the first shea butter from Sudan) and 100 percent *nilotica* shea butter. Also, within the 100 percent shea butter market, there are market segments that require all-natural, organic[26] or wild-crafted products, which Lulu Life shea butter can supply.[27]

It is also believed that the international market will respond to the socially responsible story of Lulu Works. Assuming the product meets quality standards, there is a portion of the end market that will respond to the fact that, and purchase the product because, Lulu Works supports conflict-affected women in Sudan through the equitable distribution of the value-added benefits.

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[25] While there is some 100 percent natural shea butter originating from West Africa, the bulk of the West African shea butter, though traditionally processed, undergoes bleaching and deodorizing by the international buyer prior to formulating.

[26] Although not organically certified, and with little short term opportunity to acquire certification, Lulu Life shea butter can claim to be 'non-certified' organic.

[27] Because of the vertical integration of the industry in Sudan, Lulu Works can provide the provenance on the nuts that are collected and the oil that is produced, certify the processing technology used, and verify the real income distribution to the value chain actors, all critical requirements for this segment of the international market.

It is known that the primary requirements of sustaining a presence in the international market revolve around reliability, both in terms of product quality and the timely and consistent delivery of that product to the market. Because of the problems of ensuring a regular supply of processed oil from South Sudan, it was not until 2007 that MEDIC felt confident in the ability to meet this last requirement. Due to the relative small size of the cosmetic-grade oil being produced (around 10 tons), and the differing import and labeling requirements of each international market,[28] the decision was made to focus first on one international market—the United States. In late 2007, Lulu Works entered into an agreement with Swahili Imports, a distributor and retailer based on the west coast with long-term experience in African imports and a fair trade operating philosophy. This distributor is currently importing four Lulu Life products:[29] the 100 percent body butter (sold to Swahili Imports at $7.50 per 100ml unit), the round bath soap (sold at $2 per bar), the lip balm (also sold at $2 per container) and the body scrub (sold at $6.50 each) (all FOB Nairobi). The initial shipment was small, but enough product was sold from the distributor's website[30] that a second, larger order, was placed immediately. At typical mark-ups the body butter is being sold on the website at a retail price of $24, the soap at $7, the lip balm at $7 and the body scrub at $19.50.[31] The distributor has agreed to provide significant marketing assistance to Lulu Works by presenting the products at two US trade shows: the New York International Gift Fair in New York City in January 2008, and the Natural Products Expo West show in Anaheim, California in March 2008. While the agreement with Swahili Imports is not exclusive, they are also providing the valuable service of shipping all products from Nairobi, and clearing and storing all products on their arrival in the United States.

Based on both the efforts of this distributor, and additional support by AGOA,[32] Lulu Works is projecting $125,000 sales into the U.S. market during 2008.

THE KENYAN END MARKET

Since beginning to sell Lulu Life products to the Kenyan market in late 2002, considerable progress has been made in creating awareness about shea butter in general—and the Lulu Life products in particular—amongst a population that, other than a small expatriate community that was aware of shea butter through exposure to overseas markets, had not previously heard of shea butter. In Nairobi, there is now a loyal clientele of repeat buyers. Although the products are marketed as skincare products, it appears that the majority of consumers buy the body butters and soaps to combat various skin ailments, positioning the products more in the healthcare sector. There is a growing awareness amongst affluent and educated Kenyans about the use of natural products. As the users of Lulu Life products have experienced the promised benefits, word-of-mouth advertising has resulted in increased awareness and sales. In addition, many consumers feel good about supporting the women in South Sudan, being acutely aware of the suffering that has taken place on Kenyans' doorstep for decades.

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[28] Although interest has been expressed by other distributors or retailers in Europe, England, and Japan, the time and cost in arranging shipping, in fulfilling the import and labeling restrictions for shea butter in each of these countries, and creating marketing materials for these different markets is beyond the capabilities of Lulu Works at the present. For example, the second shipment of shea butter products to the United States was confiscated, as the labeling on the products did not meet US import requirements. This has necessitated reprinting all product labels to be in compliance with these regulations.

[29] While there is likely a market for lulu cooking oil within the Diaspora communities, MEDIC has not pursued marketing this commodity outside Sudan. The time and cost to either reach the Diaspora, or to educate a new clientele unaware of the benefits of shea cooking oil, preclude easy access to these markets. With limited funds and staff, MEDIC has opted to focus these limited resources on the more easily reached cosmetic and skincare export markets.

[30] See Appendix IV for presentation of Lulu Life Products on the website, or go to Swahili-imports.com. See Appendix V for an analysis of the direct costs for the products formulated in Kenya.

[31] Not knowing what retail price the US market would bear for Lulu Life products, the distributor has assisted in establishing these price points.

[32] The Nairobi regional office of AGOA selected Lulu Works in late 2007 as one of four new companies in East Africa they would support in entering the US natural products market. This support includes providing a marketing expert to design trade show presentations, and the cost of entering US trade shows in 2008.

Annual sales in Kenya have grown from $572 in 2002 to $63,000 in 2007, supporting the assumption that the Kenyan market is ready to embrace natural products produced in Africa. This is an important victory over the generally held perception that products manufactured overseas are better than those produced in Africa. Lulu Works can build on this newly acquired recognition by a continuing a high-profile presence in shopping areas and retail outlets.

Lulu Life skin moisturizer, or body butter, has been marketed to individuals in Kenya since late 2000, but it was not until early 2004 that it became available to the public in retail shops. Sales are mainly through health and gift shops, chemists, and craft fairs.[33] The skin moisturizer is formulated from 100 percent shea butter, with and without essential oils and fragrances. The wholesale price in Kenya for the 100ml container is $3.57 and the retail price ranges from $5 to $7.15. In 2007, 10,700 units of this product were sold into the Kenyan market for a total value of $44,000. In addition to the skin moisturizer, a shea butter lip balm and shea butter and sugar body scrub were introduced to the market in 2007 and $4,250 was earned in 2007 from their sales. Long bars of lulu soap are not marketed in Kenya, as there are several well-established and inexpensive Kenyan-made soaps against which it would be difficult to compete. Instead, specialty round bath bars, with added essential oils and herbs or flowers, are manufactured and sold in the Kenyan market. These soaps wholesale at $1.43 and retail in the shops from $2.00 to $2.86. In 2007, 5,006 soaps were sold into this market for a total sales value of $7,531.

Competition in the market derives from the presence of well-known brand names in the beauty and skincare industry. These major brands have ongoing local advertising campaigns supported by large budgets. Increasingly, new natural products come into the Kenyan market posing a threat to a portion of the Lulu Life market. However, to date, only one 100 percent shea butter product (from West Africa) has been introduced into the Kenyan market (and that product is only for sale in one health shop chain), and only two products in the retail market advertise that they contain shea butter.[34] Because of the softer consistency of Sudanese shea butter and its appealing natural fragrance, its competitive edge over 100 percent West African shea is striking. Consumers who have used both brands report disbelief that the West African shea butter is the same product and market sales confirm consumer preference for Lulu Life products.

The hotel amenity market in Kenya is another potential market, as this highly competitive sector needs to constantly innovate its products to differentiate itself. Corporate social responsibility is a factor that plays an increasingly significant part in purchase considerations in the Kenyan hotel industry, and Lulu Life's role in supporting Sudanese women is an important competitive edge over most other products. One eco-lodge already stocks the Lulu Life soaps and several inquiries from hotel groups and tented camps have been received, but have not yet resulted in orders. The low price of machine-manufactured soaps in Kenya is a threat to Lulu Life handmade soaps in the hotel market. The lack of capacity for research and development to produce a complete amenity package also impedes entry into this market.

Entry is sought into the hotel gift shop market through a Lulu Life gift pack. Initial feedback shows a complete lack of knowledge about shea butter products on the part of the gift shop managers and sales staff, and a reluctance to stock skincare products beside the African curios.[35] Another constraint is that the Lulu Life 100 percent shea butter product is heat sensitive, making it difficult for people to carry when on safari or at the coast.

Lulu Works is projecting $115,000 sales into the Kenyan market during 2008.[36]

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[33] Lulu Life products are currently available at 25 retail outlets in Kenya, and Lulu Works displays at approximately six 'craft' fairs annually. See Appendix VI for current Lulu Life retail products.
[34] Palmers sells a massage and skin firming lotion, both advertised as containing shea butter, and Clere, a South African brand, sells a lotion advertised as containing shea butter.
[35] The gift shop owners and sales staff is unaware that their clientele are aware of shea butter products and their benefits.
[36] This projection has been recently decreased, a result of the political turmoil in Kenya following national elections in late

EAST AFRICAN AND SOUTH AFRICAN MARKETS

There is some interest in Uganda and Tanzania for Lulu Life products and small quantities have been sold. There is good potential in South Africa, where there are many affluent people who are interested in natural products. South African retailers sell some shea butter products originating from Europe and West Africa. With enough capacity these markets can be explored and penetrated through the use of local distributors. There has been a demand by this market for bulk sales of cold-pressed shea butter to be used in the formulation of South African manufactured skincare products, although it is not clear if the market is willing to pay a price that may be three to five times higher than West African shea butter due to the equitable revenue distribution model employed by Lulu Works.

No sales revenue from these markets is included in the 2008 projections.

THE SUDANESE RELIEF MARKET

Sudan has relied heavily on food aid during and since the conflict. Over the five-year period from 2001-2005, US food aid to Sudan averaged 210,000 metric tons per year. Most of this food was programmed as free distributions to communities. Due to the continued poor performance of the agricultural sector in South Sudan and the projected influx of returnees,[37] it is planned that large volumes of food aid will be needed over at least the next 12-15 months.[38] Relief distributors in South Sudan are many, but few include the purchase of local commodities in their plans. The distribution of relief commodities has been continuous since long before the CPA, and there has been little interaction between the managers of relief programs and the local communities with regard to the purchase of local commodities as substitutes for imported commodities—nor has there been much apparent concern for how these imported commodities affect the local markets.

The supply of imported food oil by relief distributors has directly and adversely affected the market for locally produced shea butter cooking oil everywhere the industry operates. As long as subsidized imported cooking oil reaches the markets, only traditionally produced lulu oil—where material and labor costs are not calculated—can compete.

One exception to this situation has been an agreement between Norwegian People's Aid (NPA) and MEDIC. Since 2005, MEDIC has been selling Lulu Works cooking oil to NPA[39] for distribution in their relief program. During 2005-2006 MEDIC distributed just over 6,500 liters of lulu cooking oil in 5-liter containers through this system at a price of $2.50 per liter.[40] The price was raised to $3.00 per liter in the NPA/OFDA 2007 grant, and 2,979 liters (the total funded amount) was purchased from Lulu Works processing centers for relief distribution. While OFDA is no longer funding MEDIC/Lulu Works activities or the purchase of locally produced relief oil in Sudan, it is thought that a growing understanding of, and emphasis on, the need to substitute locally produced commodities for subsidized imported commodities, may result in continuing sales of lulu cooking oil to relief organizations during 2008 and 2009. The manager of the Food for Work road building program in Wau County has indicated a desire to purchase lulu cooking oil, and MEDIC has submitted a concept paper to the European Community for the continued support and subsidizing of this activity through 2011. The Lulu Works marketing team is actively pursuing other potential partners in Sudan, but to cover all direct costs, without subsidies, the selling price for Lulu Works cooking oil needs to be raised to $4.75 (FOB the processing centers), a cost that may preclude its sale.

December, and the subsequent downturn in both local purchasing and the tourist industry.

[37] 605,000 Sudanese are projected to return in 2008

[38] FAO and WFP project a 93,000 MT food deficit until the next harvest in late 2008.

[39] The cost of this oil has been funded by OFDA grants

[40] The $2.50 was all paid to the LLP women processors, and the balance of the direct costs of production were paid by other donor budget lines, with NPA covering transport costs from county centers.

Several relief and development agencies[41] have also shown an interest recently in the purchase of Lulu Works soap for use in their programs. While the selling price of long bars of lulu soap is three times higher than the cost of mass-produced long bars of soap from Uganda (the soap now used by most organizations), recent tests have shown that Lulu Works soap is 20 percent larger and lasts 2.5 times longer, making it more cost effective than the Ugandan soap. The Lulu Works marketing team is currently preparing a publicity campaign around this data in the expectation that relief and development organizations will be persuaded to contract with Lulu Works for their soap needs.

While the relief and development markets are recognized as finite and relatively short-term, the result of integrating Lulu Works cooking oil and soap in the current relief markets in South Sudan will set the stage for future competitiveness and have long-term effect on the sustainability of the industry.

Lulu Works is projecting $10,000 sales from the Sudan relief market during 2008.

THE SUDANESE RURAL END MARKET

The current rural markets in South Sudan are small and sell basic food commodities—imported from Uganda, Kenya or North Sudan and a few locally grown agricultural products—sodas and beer, used clothing, medicine and sometimes reading material. Retailers usually include a tea and chop shop and often a bicycle repair shop. In the larger rural markets they may include a video parlor powered with a private generator. Rural areas located near the border with Uganda have larger markets and more commodities based on the cross-border trade. Shops or kiosks are owned and managed locally, often getting their stock by bicycle, the use of a private vehicle, or if located on a major road, through the growing private bus and truck transport system.

The first product from the yearly shea harvest is the fresh fruit. Beginning with the first rains each year, fresh lulu fruit is collected and the bulk is eaten by households—either fresh or dried and dipped in lulu oil—or discarded when de-pulping the nuts. A small amount is sold in local markets but is not considered a significant source of income. This season the fruit sold for $.50 per 'pile' of 10-15 pieces. How much of the fresh fruit is consumed versus converted into oil varies with each family and each season, depending on how many women are in the household to produce oil and how much other food is available that year. The Lulu Works processing centers do not collect or sell fresh lulu fruit, but there may be a potential market in South Sudan for dried lulu fruit. During the 2008 harvest, MEDIC will test the possibility of creating a dried lulu fruit product, using the solar drying tunnels installed at various Lulu Works centers. If successful, options for packaging and marketing the product will be pursued.

The primary traditional use of shea butter in South Sudan is as a food or cooking oil, produced using a water extraction method.[42] Coming into season at the beginning of the annual rains, it is the most important food supplement at this time, when food supplies are low and when labor demands for cultivation are highest. Lulu oil has always been the major source of energy to bridge this annual hunger gap and provide the calories to facilitate cultivation. Research conducted by MEDIC in 2000 indicated that lulu oil is by far the most important cooking oil consumed throughout the year by rural households, by quantity consumed and by preference from among the alternatives. Although largely used for household consumption, up to 25 percent[43] of the lulu cooking oil produced by village processors is sold in rural markets. When produced at the household level, lulu cooking oil does compete with imported and relief oils, though labor costs for making the oil are not calculated into the selling price, and normally the nuts used in this production have been collected by the family and not purchased from a secondary source. Revenue from the sale of traditional lulu cooking oil in rural markets was reported to MEDIC in 2000 as the most

[41] Carter Center, UNICEF, UNDP, Red Crescent, and ACTED have requested quotes.
[42] The pounded nut powder is made into a paste and then boiled with water until the oil comes out and then the resulting oil is separated from the water. This method produces oil with a short shelf-life of two to four weeks as the impurities in the oil have not been clarified or filtered out and the residual water in the oil accelerates spoilage.
[43] From discussions conducted after the last harvest, it is believed this statistics is still current.

important source of income for women, exceeding amounts they earn from the sale of other food crops (honey, sweet potatoes, vegetables), from the sale of other oils (sesame and groundnut), or from the sale of home-brewed beer and alcohol.

In contrast to traditionally produced lulu oil, Lulu Works cooking oil is produced using the COVOL technique and equipment. The lulu nut powder is not boiled to extract the oil, but rather is cold-pressed using a hand-operated press. The oil is then clarified and filtered, resulting in clean, clear oil with a shelf-life of one to two years. Although preferred over imported non-shea cooking oil, price is the determining factor in the success of selling the Lulu Works cooking oil in local rural markets. The availability of subsidized relief oil in the rural markets has been the main deterrent to selling Lulu Works cooking oil in the past, and only when relief oil is not available in the market have the processing centers or county offices been able to cover more, but not all, of the direct costs of making the oil.[44] The growing profusion of mass-produced low-cost Kenyan and Ugandan cooking oil, since the CPA and with the growing truck trade, has further limited the sale of Lulu Works produced cooking oil, except to rural customers who have a source of income that allows them to purchase luxuries. This small percent of the rural market should grow with increased income-generating opportunities, but it is not viewed as a significant market in the short term.

Revered by generations of Sudanese for its healing and beautifying properties, lulu as a skincare product has a historical market in South Sudan. The lulu skin moisturizer produced by village women is made using the same water extraction process, resulting in a dark, pungent product with a very short shelf-life. It is now known that the high heat in the traditional boiling technique destroys some of the vitamins and nutrients in shea butter, rendering it less beneficial to the skin. The shea butter produced by the Lulu Works processing centers is not roasted prior to extraction, and then, like the Lulu Works cooking oil, the oil is manually pressed from the nut powder, with the result that the oil retains most of the inherent properties of the nut. Essential oils or perfumes are added to the virgin cold press, which is sold in rural markets at prices ranging from $2-5 per 100ml, the higher end covering direct costs. While price is a determining factor, there are more people in the rural areas willing to pay a higher price for Lulu Life body butter, in large part due to its high quality and known healing and nutritional properties, but also due to its packaging, which is seen as upscale in the rural market, or re-usable. This market also responds to the addition of fragrances to the body butter, which are not added to village-produced shea butter. Significantly, Lulu Works' shea butter has a shelf-life 12-24 times longer than traditionally produced shea butter.

Soap from lulu is not made by local village women, and is only made by Lulu Works processing centers. The Lulu Works Collection and Processing Centers (CPUs) make soap mostly for their own use, while production for the market takes place at the Lulu Works Grinding and Processing Units (GPUs).[45] While there is a great demand for soap in rural areas, and none yet made commercially in South Sudan, commercially produced Ugandan soap is imported in large volume and available in most rural markets. Again, price is the determining factor in this market. The price for long bars of unwrapped Ugandan soap in rural markets is $1, which precludes the sale of soap made by Lulu Works, although 20 percent larger in volume, at a price that covers direct costs. At the present time, therefore, the rural retail market is not seen as a significant market for Lulu Works long bars of soap. Lulu soap, however, is well received by local communities; they know lulu and its skin properties and attest to the superior quality, so as personal incomes increase, this market should grow. A new potential market has been identified with the recent construction of

[44] Notably, during the first two months of 2008, the price of cooking oil in the markets in Bahr al Ghazal has increased to $2.50/liter, up from an average of $1-1.50 during the last several years due to smaller relief distributions and shortages of imported oil from East Africa, and Lulu Works cooking oil is selling readily in those markets. See Appendix VII for summary of the direct costs of products manufactured in Sudan.

[45] CPUs utilize the traditional mortar and pestle (*funduk*) for grinding lulu nuts and a hand-operated press to extract lulu oil. Production potential is 20 liters per day for each CPU. GPUs utilize a mechanical grinder to grind the nuts and up to 4 hand-operated presses to extract the lulu oil. Production potential is 40-80 litres per day for each GPU. Two operational GPUs are in Wulu and Mapel.

GOSS training facilities and schools, both of which need soap for use by students. While a contract has not been signed, county and army officials in Mapel, Bahr al Ghazal have indicated that the new military training facility under construction will purchase Lulu Works soaps and cooking oil for use by the 3,000 proposed students and trainers. Lulu Works will actively pursue other such opportunities, such as contracts with the SPLA and the prisons to provide lulu oil and soap from Lulu Works for soldiers and inmates.

Lulu Works is projecting $8,000 sales from rural Sudan markets during 2008.

THE SUDANESE URBAN MARKET

South Sudan: The urban markets in South Sudan are growing rapidly with the expansion of GOSS and the influx of oil revenue and donor funds. In the recent past they included the towns of Juba, Wau, Rumbek, Yei, Yambio and Maridi, and now include most county seats. While the majority of shops are still locally owned, there is a growth of shops owned by Kenyans and Ugandans, and many are still owned by traders from North Sudan in the old garrison towns of Juba and Wau. The largest urban market in the south is Juba, with an estimated local population of 200-300,000.[46] This market is currently serviced primarily by products from Uganda and Kenya,[47] and to a smaller degree by products from North Sudan[48] or imported from China and a limited number of European, Arab and East Asian countries. Though bustling and expanding monthly, the stores or shops are still relatively small and have a limited variety of goods. On a research trip to Juba in October, other than the UN Duty Free shop, we found only one store that was air-conditioned—preferable for a lulu outlet servicing the expatriate community[49]—and no store that could be considered a supermarket or department store. These stores carry a limited variety of skincare or beauty products, but have a broader range of perfumes (both from North Sudan and imported). Imported skincare products ranged from $2.50 (80ml), for the low-end of the product line, to $24 for well-known brand products such as Nivea Visage.[50] Vaseline, the skincare product preferred by Sudanese women when lulu is not available, was selling for $2.44 per 100ml in urban markets (but only $.67 per 90gm in rural markets). There are seven or eight pharmacies in Juba, but only one of these is air-conditioned and only one carries skincare or beauty products. The largest markets are outdoor markets with many small temporary kiosks, but again the variety of products is very limited, except for a relatively large selection of clothing and personal electronic equipment, including telephones. These kiosks carry the same types of soaps and skincare products as the permanent shops, and again we found no skincare products manufactured in Sudan or with shea butter. The skincare products in the kiosks are very inexpensive (the main ingredient is petroleum jelly), and a line of MOVIT bath soap and skin products produced in Uganda did not seem to be selling to the local population which frequents those places. Expensive products in the higher-end shops were clearly being marketed to aid and development customers. Individually sized imported Kenyan or Ugandan commercial bath soaps, and a few brands imported from other countries, sell for $1 each, but no handmade or natural soaps were found in the market. The same blue long bar of Ugandan washing soap was available in all stores and markets at $1 per bar, the same price as in the rural markets. There is no locally made soap for sale in Juba.

The urban market in the South can be divided into two main purchasing groups: the local population, which has

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[46] This is an estimate being used by the UN until the proposed census, which was scheduled for November 2007 but has been postponed, is conducted.

[47] Difficulties in servicing these urban markets from rural areas continue due to the lack of infrastructure and support services throughout South Sudan.

[48] In spite of increased North-South trade and a 100 percent GNU-imposed duty on imported cosmetics (which is presumably to protect Sudanese manufactured products), we found no soaps, cosmetic or skincare products from North Sudan in the Juba market. In Wau there was one brand of soap from Khartoum, a 110 g bar that was selling in the open market.

[49] While Sudanese know that lulu changes from butter to oil depending on the ambient temperature, and are therefore prepared to handle the product accordingly, the expatriate community does not have this knowledge and it would be preferable to deliver the product to them in the butter consistency.

[50] See Appendix VIII for a summary of products and prices in South Sudan.

increasing disposable income and the expatriate market, based primarily in Juba and Rumbek, which has large disposable incomes.

The local population market presents an opportunity, as lulu products are well known and preferred. In addition, the local population is proud to be able to buy locally produced products. Accessing this market has been limited and informal, as MEDIC/Lulu Works lacks a base of operations in any of the urban centers. Unlike in Kenya, entering the local market will not require as much of an education campaign as shea butter is known and its benefits are understood. It is believed there is a potential market for Lulu Works cooking oil in these urban centers as price-point is not as important as it is in the rural areas. Though no locally produced cooking oil products were found in the Juba market, imported vegetable cooking oil from Uganda and Kenya was available in all shops and markets. The cooking oil retails for $1 per 300ml, or $1.25 per 500ml, the most common sizes sold to the local customer. Preferred over other types of oil, traditionally processed lulu cooking oil is occasionally available in Juba and was reported to have sold last season for $2.00 per 500ml bottle. If the wholesale market this year will tolerate a price increase of $.85—which seems plausible—to $2.85 per 500ml, the Lulu Works cooking oil could be delivered from the nearest Lulu Works processing centers and recover direct costs.[51]

While the competition in the urban markets from the Ugandan long bars of soap may prohibit the sale of lulu soap at the present, the market for lulu skin moisturizer has little competition. Informal sales through the Juba Women Self-Help Group at $2.50 per 100ml jar indicate that the local population is willing and able to purchase Lulu Life body butter at a price that will cover direct costs. To penetrate this market, a formulating and packaging facility in Juba is needed,[52] along with a marketing campaign to inform the local market of the availability of Lulu Works products. To facilitate penetrating the other urban markets, Lulu Works will attempt to find a local distributor partner.

The size of the aid and development expatriate community in South Sudan has grown dramatically since the signing of the CPA. While large, this community is located chiefly in the largest urban centers, with a majority based in Juba. Most of this group are highly paid and have few commodities on which to spend their money. While few are familiar with shea butter cooking oil, many are aware of shea butter as a skincare product. It is expected this group will be a large and captive market for Lulu Life skincare products and handmade bath soap, not only for their intrinsic value, but also because it is presumed that this market has a bias toward purchasing products that would support the development of local industry and Sudanese women.[53] The aid and development expatriate community is not only likely to stay for a long time, but projected to increase in numbers, with a high turnover rate. Thus, this segment of the market should grow. The primary limitations in reaching this market are the lack of a formulating and packaging facility and team in Juba, the absence of a Lulu Works marketing and sales representative, and the lack of leaf-proof or heat-resistant Lulu Life packaging.

An auxiliary market to the expatriate community is the hotel and tented camp market. This market is especially big in Juba with a large number of expatriate personnel residing in these camps[54] due to the shortage of residential housing. The camps require regular quantities of soaps (one of the camps with 62 tents uses 300-500 soaps per month) due to the transient nature of its clients. The guest-size and personal-size soaps[55] that are provided in the rooms are now all imported from Kenya or Uganda. In the absence of any other locally produced bath soap, it is likely this market can

[51] $1.00 per liter has been included in the direct costs to cover the cost of getting product from the processing centers to the urban markets.
[52] The poor state of the roads in the South, combined with the lack of temperature-controlled transport, result in a non-presentable retail product upon arrival in Juba.
[53] The trial sales to this market have indicated they are willing to pay $5 for the 100ml body butter and $1.50 for the round bath soaps.
[54] According to a November 2006 UNJLC report, there were at least 1,500 hotel and tented beds in Juba.
[55] Only soaps are provided in the rooms. We found no camps or hotels that provided shampoo, conditioner or any other in-room amenity.

be persuaded to purchase Lulu Life soaps—even at a somewhat higher cost—rather than imported products, thereby supporting local enterprise. Considering that almost all the hotel residents are people working in the development arena, it is likely that the presence of a high-quality, locally manufactured product in their room will be well received and, once used, demanded.

Lulu Works is projecting $10,000 sales from the South Sudan urban markets during 2008.

North Sudan: The Khartoum end market is similar to the larger urban markets in the South in that it is composed of a group of Sudanese who have disposable income and a large resident expatriate community. The size of the Sudanese market in the North with disposable income is much larger than in the South, but there is also more competition in Khartoum from imported products. The same is true for the expatriate community.

The people of North Sudan are very aware of the benefits of lulu and have long used lulu products when they can get them. We have been told that some lulu cooking oil reaches the markets in Khartoum, coming from Wau town to the northern traders in intermediate marketing points. During an exploratory marketing trip to Khartoum in December 2007, no lulu cooking oil was found in the market, but all of the Sudanese contacted expressed the desire to purchase lulu oil if it were available.[56] A variety of imported skincare creams were available in supermarkets and chemists, but only one (Ultimate Organics, USA) contained shea butter and only as a minor component.[57] Several brands of imported and locally produced bath soaps were being sold at price points below Lulu Life bath soaps, but one soap, made from Black Seed and Honey and imported from Syria, was priced above the average retail price of Lulu Life bar soap in Kenya.

Two shipments of Lulu Life products were sent to CHF International in Khartoum in 2007 for resale in their gift shop. In spite of high transport and duty charges,[58] all of these products were sold, and they have requested additional product. The retail product taken to Khartoum in December by the MEDIC marketing team was sold at prices above retail prices in Kenya: the 100ml body butter sold at $5 apiece, the mosquito repellent at $2 each, and soaps at $1.50. These sales are a small indication that the expatriate community in Khartoum is eager to buy lulu products.

Meetings in Khartoum confirmed there is great interest for lulu products and price does not seem to be issue, but the logistic problems involved in servicing this market from the South are extensive. Discussions with a leading businessman who has long experience in both the North and South, confirmed that different packaging—at the very least labels printed in Arabic—would be required to compete in the Sudanese Khartoum market. Transporting finished product from the processing centers in the South is not an option due to the long distance and hot, rough transport conditions, and formulating and packaging final product in Khartoum would require the establishment and management of those facilities, either by MEDIC/Lulu Works or by a partner. Marketing would require a different approach, and sales receipts and banking arrangements would need to be established. Neither MEDIC, as an NGO, nor Lulu Works, as a company or trader, is registered with the GNU—make these not easily accomplished tasks.

No sales from the North Sudan market are included in the projections for 2008 due to the current difficulty in getting product to that market.

2. BUSINESS ENABLING ENVIRONMENT

[56] A limited amount of cooking oil was carried by the marketing team to Khartoum and it sold for $2-3 per 300ml bottle.
[57] See Appendix IX for an assessment of products in the Khartoum market.
[58] The products were supplied from formulated stock held by Lulu Works Kenya and sent airfreight to Khartoum from Kenya, at a cost of $106, which added $.99 average per product. In addition to sitting in Khartoum airport customs for four weeks, a duty of $250 was imposed on the products—adding an additional $1.54 average per product—though documents clearly stated the shea butter originated in and was processed in South Sudan.

There are many factors that make South Sudan a 'disabling' environment for business and limit the lulu industry's capacity to meet and expand end-market demand. Because the laws of South Sudan are still being formed by the legislative assembly in Juba, there are no clear operational guidelines regarding land and natural resource ownership,[59] taxes and customs duties, banking and finance, cooperatives or small business development policy. There are also changing regulations initiated by the GNU regarding taxation and trade between North and South[60] and between Sudan and other countries,[61] and there is confusion on the part of the international community on the interpretation of existing trade and monetary regulations with Sudan.[62] Trade agreements between the GNU and other countries do not extend to South Sudan. The effect on the lulu industry is a continually changing set of rules that vary from month to month, and county to county, and affect the price of everything from the cost of spare parts or imported packaging to the price of nuts that are purchased locally and the taxes that are charged on processed lulu oil that is exported to Kenya. A Bureau of Standards certificate can be purchased in Juba for $1,200, but no set of standards have been established for any product and no testing facilities are in operation. The Phyto Sanitary and Certificate of Origin certificates[63] that were issued by each county forestry department under the old New Sudan government are only valid if the industry is registered with GOSS Ministry of Agriculture and Forestry and are issued on a per shipment basis.[64] There are no facilities in South Sudan for organic or fair trade certification.

Although starting to change, there has been a complete lack of infrastructure within South Sudan to support business development and access to markets. There are no tarmac roads, and the lack of feeder roads everywhere in the South makes the majority of the lulu forest inaccessible for nut collectors, except by foot or bicycle. Telecommunications facilities, except within the major urban centers, are non-existent,[65] as is public electricity.

Two generations of southern Sudanese had little opportunity for training and education during the conflict and as a result now lack the skills needed for industry development. Most of the women in the LLP are illiterate or have only minimal literacy skills, and most have no experience with or exposure to functioning business models. The influx of NGOs and other international aid organizations has resulted in a distortion of the salary scales in the market for those southern Sudanese with marketable skills,[66] making it impossible for small businesses to compete for scarce but highly paid human resources.

On the positive side, MEDIC and Lulu Works have continuously received strong support from local and regional government and civic authorities. The Ministry of Forestry at both the county and GOSS level have been very supportive of the Lulu Works activities and repeatedly expressed their appreciation for using the resource on behalf of the women of Sudan. There has been, to date, no interference with any of the industry development activities.

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[59] The Ministry of Agriculture and Forestry has completed the draft of their recommendations regarding the use of the forestry natural resources in South Sudan, including the use of the lulu tree, but it has not yet been presented to the legislative assembly for their review and approval. Regardless of the content, and we were not allowed to read the recommendations, this legislation will have an impact on the future development of the industry.

[60] MEDIC's NGO registration and Lulu Works business registration with GOSS are not recognized by the GNU and both will need to apply and be approved to legally conduct business in Khartoum.

[61] A recent decision by the GNU to withdraw Sudan from COMESA means that processed lulu oil brought down from Sudan to Kenya will be charged up to 40 percent import duty.

[62] MEDIC International's bank in Germany, Deutsche Bank, recently notified MEDIC that it will no longer transfer funds to any bank in Sudan, and there is a difference of opinion by American trade officials as to whether products from South Sudan are included or excluded from the AGOA program.

[63] These documents are required when importing botanical products into Uganda or Kenya

[64] It is not known what costs will be involved in the issuing of these certificates as Lulu Works is just now attempting to secure these.

[65] MEDIC uses satellite phones to communicate between county offices and with MEDIC offices in Kenya, which is very costly both to purchase and to use.

[66] South Sudan is seen as a hardship area and people are paid three to four times the salaries they would earn in Western countries for the same job.

To establish a producer-oriented industry governing body, The New Sudan Lulu Network (NSLN) was formed in 2001 following a technical training workshop attended by women from nine lulu-growing counties throughout the Sudan range, and supported by six NGOs. While MEDIC took the lead in suggesting a network, the final principles and objectives for the NSLN were worked out collectively by the women in attendance. The mandate of the network is to act as a governing and coordinating body for all organizations working on the development of the shea industry.[67] The operating principles and guidelines included standards for oil processing, equity in distribution, conservation of the shea forest and a primary focus on women ownership. It was envisioned that the NSLN would represent all actors in the lulu industry in South Sudan, and be a link with other shea butter-producing countries in Africa.[68] While it does perform these functions for the Lulu Works processing centers, due to the departure of the other early actors, by default it now only represents MEDIC and Lulu Works. It is hoped that the NSLN will evolve with the growth of the industry to become the governing body originally envisaged and that any new actors in the value chain will participate.

It should be noted also that the key enabling factor in the development of the shea butter industry in South Sudan has been MEDIC's continued and constant support and commitment. While all other early actors in the development of the industry quit or abandoned the field, MEDIC's persistence and willingness to take on other functions as the need arose, has been fundamental to the development to date.

3. VALUE CHAIN PARTICIPANTS

VILLAGE NUT COLLECTORS

While no formal assessment was conducted during the conflict or since the CPA on the extent of the shea tree resource in South Sudan, an unofficial assessment in 2003 estimated that the shea tree resource covers a minimum of 100,000 square kilometers in South Sudan with an average tree density of 10 trees per hectare. Most trees remain untapped as they are located in sparsely populated areas of South Sudan, or are located more than a day's walking distance from more densely populated areas. MEDIC's research indicates that most fruit and nuts are collected from trees on a family's homestead or from the nearby commons. Although the commons are open to all on a first-come, first-served basis, tension and fighting sometimes occur on those nearest the homesteads, as families compete during hard times for lulu fruit and nuts at these lower-cost collection points. Collectors will seldom travel more than a day's walk from their homes, except in times of severe food shortage when they will walk up to three days to get nuts. Fruit and nut collection historically has been primarily the job of children. Collection begins after the first rains (April/May) and lasts until the end of July. A very rough pre-LLP estimate put the average household annual collection of nuts at about 260kg, or 17 tins. Research conducted by MEDIC in 2000, and re-visited in 2007, indicates that 25-30 percent of the collected fruit and nuts are sold in the local market (with locally processed cooking oil being the largest and most lucrative part of this market), with the balance of the nuts collected processed into oil for family consumption. With an established market for nuts at the Lulu Works processing centers and the new Nut Collection Centers (NCC), more men and women are collecting nuts. While some women members of the processing centers do bring nuts in to sell to the centers, men and women of the community bring in the majority of nuts.[69] In KajoKeji, an average of 400 tins of nuts (each tin is approximately 15kg) are brought into a processing center during the six months after the harvest, by approximately 200 different collectors, and an average of $2.60 was paid per tin in 2007.

[67] See Appendix XI for a copy of the NSLN Principles and Objectives.
[68] The NSLN Principles and Objectives were reviewed and adopted by the Africa Shea Network. See Appendix XII.
[69] It is assumed that many of these men and women are relatives of the processing center's members, and may even live in the same family compound as the women members; it is difficult to ascertain as recorded names do not reflect this relationship.

LULU WORKS NUT COLLECTION CENTERS

Established in the second quarter of 2007 and just prior to the start of the 2007 nut harvest, the five Nut Collection Centers are a pilot project to determine if they offer an approach to solving the chronic problem across the entire African shea tree-growing belt—and one of the most significant limiting factors in the growth of the lulu industry—of securing an adequate supply of nuts from each season's harvest. Shea nuts come in season once each year, just prior to and with the beginning of the annual rainy season, and when labor demands for cultivation are highest. Since feeder roads have not yet been re-built, and even major roads are often impassable with the rains, there has been no way for villagers to access nuts that fall from trees which are more than a day's walk from an established village, or from a nearby road and potential collection point. Each pilot NCC is equipped with five bicycles, improved nut storage *gugus* (large, raised woven bamboo grass-covered baskets capable of storing up to 2,800 tins of nuts, the target number of tins for each NCC), a small office, and in most cases a solar drying tunnel for protecting the nuts while they dry. The sites for the NCCs were chosen based on an abundance of lulu trees in the immediate vicinity and access to an existing road, and with the support and commitment of the local community. An NCC supervisor was hired and provided with a pickup truck to organize the construction and establishment of the centers, while the collection, drying and storing of nuts is handled by the local NCC team. At the end of the drying season, or when the roads opens up after the rains, the NCC supervisor returns and purchases the nuts collected by each NCC at a price previously established with the community and lower than the value of nuts brought to processing centers in that area. The supervisor collects the nuts and then sells them to the Lulu Works processing centers in that region at the higher rate. The difference between these two prices is calculated to cover the costs of the NCC supervisor, his driver and the vehicle. It is further hoped that the NCC model will provide a means to exert greater control over the nut care process to enhance the quality of the nuts available for oil production.

VILLAGE PROCESSORS

It is known from the 2000 survey, that it takes 4-6 women working a full day to process 4 liters of lulu oil from 1 tin (15 kg) of nuts. This quantity of oil is sufficient for one to three weeks of normal household consumption, and on average, is approximately equal to the stable life of the traditionally produced oil. Whether a household has extra oil to sell in the market is largely a function of how many women reside in that household. While some fruit, dried nuts and the roughly pounded powder are at times sold in the local market, the processed cooking oil is the most common commodity sold and the best income-earner from among the different products. In most places this oil is only sold in the local market or to travelers passing by, but in areas near a larger town such as Wau or Rumbek, this oil is seen for sale occasionally in the urban open markets. Women have reported that they will hold back nuts to sell later in the year, when they hope to get a better price, or to make oil for a special event such as a marriage ceremony. Village processors do not make soap from their lulu oil, but they do use lulu as a body and hair moisturizer within the family.

LULU WORKS PROCESSING CENTERS

There are two types of Lulu Works processing centers: those that have a mechanized nut grinder (GPUs) for making the nut powder, and those where the nuts are pounded to a powder with a pestle and mortar (CPUs). Of the processing centers established, only four are equipped with mechanized grinders, a result of the difficulty in purchasing diesel in rural areas coupled with the lack of mechanics to repair these machines when they break. Women working in the GPUs can process 40 liters of oil per day from 10 tins of nuts, and the women working in the CPUs can average 16 liters of oil per day from 4 tins of nuts. The process of making oil at the Lulu Works processing centers varies from the traditional method in that first the nuts are separated into three grades.[70] The selected nuts are

[70] Grade A nuts are whole, un-cracked and undamaged by insets or mildew, thus maximizing the highest level of natural components; Grade B nuts are either cracked, which causes some oxidation of the oil, but no fungal or insect damage; Grade C nuts are often cracked with insect and/or mildew damage.

then ground into powder[71] and mixed with a little hot water to activate the oil molecules, and this mixture is then placed into press bags and, using a hand-operated mechanical screw press,[72] pressure is put on the press bags to release the oil. This cold-pressed oil is added to water and brought to a very low boil, which releases the impurities into the water and clarifies the oil, without removing the beneficial ingredients in the oil. This clarified oil is then scooped off the water, heated slowly to remove any remaining water, and filtered into plastic jerry cans for storage or transport. In contrast to traditionally produced oil, the Lulu Works oil has a shelf-life of one to two years or longer. The processing centers use Grade A nuts for making oil for skincare products or oil which will be exported to Kenya; Grade B nuts are used for making cooking oil; and Grade C nuts for making lulu bath soap (often in combination with palm oil, which is available in Equatoria and transported by MEDIC to processing centers in other regions). Though there is variation in the proportions of graded nuts brought to the centers for sale, the women know of the higher offer price for Grade A, and increasingly better quality nuts are being brought to the centers. Finished lulu products are sold directly from the processing centers to the local market and, if located on a main road, sold to passing travelers.

The women who make up the processing groups are chosen by the local community, in some instances with the approval of the local Southern Sudan Relief and Rehabilitation Commission representative, and while an attempt is always made to include IDPs and returning refugees, the final decision regarding membership resides with the local community. Each processing center selects a chairwoman as their lead and a secretary/book keeper.[73] The processing groups are expected to keep track of the input supplies they receive from the county offices, the nuts they purchase or receive, the nuts they use in production, the output of their production and the distribution of revenue from the sale of product (either by Lulu Works/MEDIC or in the local market). The implementation of this tracking requirement varies considerably among the processing centers depending on the availability of a literate member. Communication between processing groups and with the county office is limited to physical visits—and these are usually limited to the dry season when roads are passable—as there are no telecommunications facilities available yet in the rural areas.

LULU WORKS COUNTY OFFICES

The six Lulu Works county offices coordinate the activities of the processing centers in that county, provide logistical and management support, and act as a communication and marketing base. They also provide storage facilities for processing supplies and finished shea butter product and purchase product from the processing centers for export and for the relief oil market. The county offices are staffed with South Sudanese women who act as county coordinators and assistant coordinators and are employed by MEDIC and paid with donor funds. Each county office is equipped with a four-wheel drive pickup truck and there are two five-ton trucks that service all six county offices.[74] Each county coordinator also has a satellite phone or radio for communication with MEDIC staff in Kenya and MEDIC directors in the field. Each county office handles the disbursement of funds[75] and local purchases and is responsible for the accounting back to the MEDIC Nairobi office for the use of those funds.[76] In the absence of a

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[71] In the LLP method, the nut powder is only heated, and not roasted over an open fire, if it is going to be used to making cooking oil, as the heating imparts a flavor to the oil desired by the market. See Appendix 10 for a description of the Lulu Works processing technique.

[72] This press is modeled on the press used by COVOL in Northern Uganda. MEDIC has commissioned a manufacturer in Kenya to make the presses, as no manufacturing facilities are available yet in South Sudan.

[73] Since it is often difficult to find a woman in the group who is literate enough to keep production records, many groups have recruited a man from the local community to assist with the record keeping responsibilities.

[74] All vehicles have been purchased with donor funds.

[75] MEDIC distributes funds on a monthly basis, sometimes in cash, but more recently through bank transfers from a Sudan bank with regional offices in the county towns.

[76] It should be noted that because these women are also victims of the protracted conflict, the majority are semi-literate and the tasks of keeping accurate records is exceedingly difficult for them.

formulating/distributing facility in Juba and Khartoum, the county offices will attempt to supply this growing urban market.

LULU WORKS KENYA FORMULATORS & PACKAGERS

Begun in 2002 in collaboration with Sudanese Women's Association Nairobi the formulating and processing facility in Kenya handles all formulation and packaging of the export-quality oil brought down from South Sudan for the regional East African and international export markets. Purchases of all formulating and packaging input supplies are executed from the Lulu Works/MEDIC office in Nairobi and paid for from the revenue earned from the sale of end-market products. The women who form the formulation and packaging team are paid from sales revenues, according to the number of liters of lulu oil they formulate and package. While the end product they make consistently meets quality control standards established by Lulu Works, as refugees, most of these women have limited education and business experience and are still struggling with basic business practices such as inventory control and accurate production and delivery records.[77] They also have limited understanding of how regional and export markets work, and their knowledge of the end-market demands are passed down to them from the Lulu Works marketing office in Nairobi. Due to limited communication facilities within Sudan, these women have little contact with their sisters who produce the oil in Sudan, except when they travel to Sudan for personal reasons, attend LLP training workshops in Sudan, or meet with MEDIC Sudanese staff when that staff travels to Nairobi.

LULU WORKS KENYA MARKETING OFFICE

The Lulu Works Marketing Office was established in 2005 to service the growing demand for lulu products in East Africa. Shared with the MEDIC Lulu Administrative Office in Nairobi, the marketing activities were managed by the MEDIC finance director until May 2007, when a full-time professional marketing director was hired. A sales assistant has also been on staff since early 2006. All sales queries and fulfillment are handled from this office, as well as marketing and promotional activities, and product development and testing. The financial records for Lulu Works are kept in the Nairobi office under the management of a MEDIC-supported accountant.

4. SUPPORTING MARKETS

There are virtually no supporting markets in South Sudan. Due to the total lack of support service actors in South Sudan, MEDIC has provided and continues to provide these necessary services. Logistical support for the value chain is provided from the MEDIC/LLP office in Nairobi: from liaison with manufacturers for lulu-specific commodities (containers and supplies for the processing of oil, ingredients, packaging), to the purchase, export and transport of all input supplies and spare parts. MEDIC Kenya also arranges for the export and transport of lulu oil from Sudan to Kenya and assists the Lulu Works marketing department with purchases, deliveries and financial accounting. The MEDIC Kenya office is the official link with MEDIC International and the donor funding agencies and all financial accounting and compliance documents are created, or verified, and maintained by this office. MEDIC also provides telecommunication—high frequency radios and satellite phones—within Sudan for the value chain needs, and transport between processing centers and from processing centers to regional markets.

5. INTER-FIRM LINKAGES

The lulu value chain is primarily composed of vertical linkages that greatly facilitate the disseminating of market information, benefits and learning in the South Sudan post-conflict environment. It is through these vertical linkages that market information is passed down the chain, from the end markets to the Lulu Works Marketing Office in

[77] Four of the formulators in Kenya attended the last REFLECT functional literacy training program in Sudan in 2007, and record keeping has improved over the last six months, partly a result of this exposure and partly the result of the hiring of a marketing director who is working regularly with the women.

Nairobi, from the Marketing Office to the MEDIC/Lulu Works county coordinators, from the county office staff to the CPU and GPU women members, the NCCs and, in some cases, to the individual village nut collectors (more often information is passed to the village nut collectors from the CPU and GPU member women). Specific information from the village nut collectors regarding the extent of the harvest and issues in collecting nuts is often passed up to the CPU/GPU women members, and information regarding rural markets is passed from the CPU/GPU women members to the county office staff, or, more often, directly from the county office staff to the Nairobi Marketing Office.

Benefits in the value chain are also passed in the same manner, but with benefits passing from the MEDIC Kenya office to the MEDIC/Lulu Works County Office staff, and from them to the CPU/GPU women members and NCC participants. Benefits to the village nut collectors are passed occasionally from the county offices, but more often from the CPU/GPU women members. Benefits between the local communities and the women producers arise out of the mutual recognition that these women are becoming an increasingly important part of the economic and social structure of the community, adding in many ways to the welfare of all. Many have been asked by their communities, or other NGOs, to participate in planning and development meetings. Some are called to mediate in community disputes, and others are petitioned to lend their growing expertise or money to new business ventures. Most of the income they earn goes directly into the local economy as they purchase additional food, medicine, clothing and household goods from local shopkeepers, employ local labor to repair houses and fences, or pay school fees. The benefits are tangible and real, generating respect and pride in the local community.

The horizontal linkages within the value chain are between the various county offices and staff, and between the CPU/GPU women members. Donor-supported radios and satellite phones, training sessions, and less frequently, management meetings, facilitate transfer of information between staff members at the different county offices. Lacking telecommunication services in the rural areas, there is limited communication between the members of various CPU/GPUs unless they are extended family members, traveling from one area to another, or live within walking distance of each other. Road conditions inside Sudan often require long detours, and many areas are not connected at all by existing roads,[78] all of which limits easy face-to-face communication and transfer of information.

D. VALUE CHAIN FINDINGS

1. OPPORTUNITIES FOR INCREASED COMPETITIVENESS

Based on current and projected need for continued relief commodities for the population of South Sudan, an immediate opportunity resides in providing shea butter cooking oil and shea butter soap to the relief market. Whether this market can be expanded from the current level will depend on whether the relief agencies are willing to pay prices above the highly subsidized costs of imported products, for the use of locally produced commodities.

The current retail market in Kenya has focused on the health and problem skin niche by selling to doctors, pharmacies and health stores. There is an opportunity to expand the current market by focusing on the beauty and cosmetic end market.

Improving the processing technology, to both cut labor time and capture more of the residual oil in the nut powder, would increase competitiveness in all markets. MEDIC has begun implementing a second pressing of the nut cake, which produces up to 20 percent additional yield of oil. In order to make more efficient use of engine-powered

[78] For example, to get from the seven processing centers in KajoKeji to Juba, Mundri, or any points further north, requires traveling back into Uganda in order to access the existing road back into Sudan.

grinders,[79] MEDIC is beginning an experiment to share one among three contiguous groups in the KajoKeji area. The challenge will be to transport the ground nut powder in sealed containers to the processing centers and then process it into oil the same day.[80]

There is an opportunity for increased competitiveness by creating new Sudanese shea butter retail products for the market that:

- Capitalize on the interest in natural African botanicals: While maintaining the unique market position of providing undiluted, non-chemically treated, Sudanese shea butter products, there is an opportunity to diversify the product line through the addition of other natural African botanical ingredients (such as neem, green tea extract, *leleshwa* (wild African sage), *Balanites aegyptiaca*, honey/beeswax, etc.)
- Capitalize on other benefits of Sudanese shea butter:
  - Hair conditioner: While Sudanese women have known for generations that shea butter is an effective hair conditioner and hair relaxer, there is little knowledge of this in African countries where the tree does not grow, or in the international market. There is a clear opportunity to create a Sudanese shea butter hair product for this large and lucrative market.
  - Shea butter dietary supplement: With new research confirming shea butter's effectiveness in combating joint inflammation and arthritis, and with the recent FDA approval of a shea butter extract as a dietary supplement, there is a new potential international market for this product.
  - Mosquito repellent: Combining undiluted shea butter with PMD, a natural derivative of *Eucalyptus citriodora* that has been shown to be highly effective as a mosquito repellent and is manufactured in Kenya, offers the opportunity to create a natural alternative to DEET-based mosquito repellents for the malarial areas in Sudan and East Africa.

There is an opportunity for increased competitiveness in the international market for organic and fair-trade products. Until such time as the certifying actors are available in South Sudan, Lulu Life products can be sold, nevertheless, into non-certified organic and non-certified fair trade markets. In preparation for certification, Lulu Works has records to prove the provenance of the oil, the all-natural processing methodology, and the fair and equitable distribution of revenue to the members of the value chain. Lulu Life products are also positioned to take advantage of the subset of the US skincare market which demands all-natural or wild-crafted products.

There is a growing demand in all markets for products that conserve or protect the environment, or are seen as helping to alleviate severe poverty and support conflict-impacted or marginalized people. Lulu Life products have a strong competitive advantage in these markets.

Because to date there is no other actor in the lulu value chain industry in South Sudan, there is no competition in Sudan for raw materials or end market, very little competition in the regional East African end market, and no competition in the international market for Sudanese shea butter.[81]

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[79] An engine-powered grinder, to be economical, should be run four to eight hours a day, but this produces more groundnut powder than one group can process in a day.

[80] This is necessary because excessive oxidation of the nut powder diminishes its valued properties. There is also some new evidence that the quality of shea butter from hand-pounded nuts is superior to the butter from the mechanical grinders. MEDIC is waiting for the results of on-going tests before committing to increasing the number of mechanized grinders used by the processing centers.

[81] There are two main shea actors in Uganda: 1) Northern Uganda Shea Processors Association (NUSPA), the group that initially trained Lulu Works; and 2) an Asian-owned company Gurun Anak in Lira. NUSPA's production technique is identical to that of

2. CONSTRAINTS TO INCREASED COMPETITIVENESS

The fundamental goal of providing an equitable distribution of the value-added benefits from the development of the shea industry to the women of South Sudan is a constraint on price competitiveness in all markets.

The lack of infrastructure and support services within South Sudan (roads, electricity, telecommunications, transport, banking, manufacturing facilities, input commodities) limit the price competitiveness and the reliable and timely production and delivery of end products and the speed and effectiveness with which end-market needs can be communicated down the value chain. The lack of defined and implemented laws and regulations governing the industry and supporting its development in Sudan limit the price competitiveness of the end products and the willingness of other actors to participate in the value chain. The lack of infrastructure and support services has forced MEDIC to take on these functions, which in turn has placed a strain on limited financial and human resources and restricted MEDIC's ability to perform other needed functions in the marketing arena.

The lack of certifying agents in South Sudan limits the ability to meet end-market demand for organic or fair trade certification, and the lack of Bureau of Standards testing facilities in South Sudan limits the value of a purchased South Sudan Bureau of Standards Certificate.

The lack of established distributors or retail outlets in South Sudan that can facilitate the sale of the products without compromising quality constrains reaching South Sudan markets.

Current LLP donors, who are all in the humanitarian and relief arena, have been unwilling to support marketing costs; marketing is not often part of their vocabulary or mission.[82] This lack of strategic subsidy and investment has limited the development of all the marketing components: internal, regional and international.[83] These same humanitarian and relief donors, in part due to the perceived decline in the need for relief and humanitarian assistance in South Sudan, have been less willing recently to support expatriate implementation staff,[84] further constraining the development of the industry in an environment critically lacking human resource capital.

The large quantities of relief commodities in the South Sudan markets hinder the price competitiveness of lulu cooking oil in the South Sudan markets.

Low-cost, mass-produced oil and soap now being imported into South Sudan with the growth of cross-border trade, and the lack of a sophisticated end market requiring natural or handmade products, limit competitiveness in the rural and urban markets in Sudan.

Undeveloped or missing human resources within the value chain constrain increased competitiveness, as the majority of the women currently participating in the value chain lack basic literacy skills and are unfamiliar with business management practices.

Lulu Works. Gurun Anak is a capital-intensive operation. NUSPA sells in the US (2 metric tons last year) and Asian/Australian markets, mostly under the brand name Source Botanicals. They have recently launched a 100 percent pure shea butter product in Nairobi targeting the high-end market. Competition will undoubtedly exist with Lulu Works products, but ongoing collaboration has also existed for several years. Gurun Anak's 5 metric ton capacity is sold mostly as bulk oil to the North American markets, but is now moving toward branding and packaging.

[82] An example of this unwillingness is the recent refusal of one of the LLPs long-term supporters to fund any portion of the Lulu Works marketing director.

[83] The lack of funding for marketing is currently limiting expansion to the urban markets in Sudan as Lulu Works does not have office facilities nor formulating space in Juba or Khartoum from which to base marketing or distribution activities.

[84] In current funding, OFDA would only support the salary of one of the four expatriate staff members who are working full-time on direct project implementation and TROCAIRE would only support one-third of a single expatriate staff salary.

The seasonal nature of the lulu nut harvest, combined with the current limited access to the majority of the trees in South Sudan, constrain and make uncertain the supply of nuts from each season's harvest, thereby making it difficult to respond to the end-market demand for reliable and consistent product delivery.

The labor-intensive hand-operated technology currently employed limits the production capacity of CPUs and the volume of oil that can be produced at any center.

The market potential is currently constrained within Sudan by the difficulty in getting product to the identified markets. The commercial transport that is beginning to be available from the rural processing centers to these urban areas is still very expensive and unorganized, and there is no local distributor servicing these markets, which means potential vendors must be contacted and supplied individually. Market potential is further constrained by Lulu Works' lack of formulating and packaging facilities in South Sudan to service the main urban markets in Juba and Khartoum.

The existing locally designed and manufactured end-product packaging does not meet international aesthetic standards, thus limiting the product's competitiveness in those markets. There is a need for new packaging that is more sophisticated, durable and meets end-market regulatory and language-specific requirements. Because Sudanese shea butter turns to oil at 98 degrees Fahrenheit, there is a need for packaging that is leak-proof in order to distribute the product in hot-climate markets—such as Khartoum, Juba and much of Kenya.

This international market also demands reliability and consistency in both product quality and delivery. While the processing technology and the quality control over the product formulation meets these requirements, ensuring a consistent and timely supply of the product from Sudan to the international market is a challenge for the industry. The current lack of infrastructure in South Sudan makes the reliable collection and storage of the raw nuts from each harvest difficult, and therefore the quantity of oil that can be produced hard to predict. The oil that is processed can be transported out of Sudan only during the dry season, and the fragile political environment could at any time further restrict the timely export of product. This requirement is further hindered by the need to ship 100 percent shea butter in a temperature-controlled environment so it does not melt en route to the market.

MEDIC and Lulu Works marketing personnel have limited experience and no budget, which constrains entry into the international markets.

3. ANALYSIS OF INCENTIVES

VALUE CHAIN PARTICIPANTS WITH INCENTIVES TO EXPLOIT OPPORTUNITIES

The Lulu Works women processors have an incentive to improve processing techniques in order to capture more oil from the shea nut powder, as they will earn more revenue from the surplus oil produced. But this incentive may only operate if the technology also reduces their labor input (as with a mechanized grinder), as most women are able to work only two to three days per week given all other domestic demands. One alternative that MEDIC has organized is to introduce additional women's groups that utilize the same equipment. In this case the shared equipment will provide the opportunity for more women to earn income, with the added benefit of increased oil production.

The current Lulu Works women processors could be taught to grow or process other Sudan botanicals for use in new products, thereby earning additional income. Because these crops are harvested or available for processing at different times of the year, it would make use of the period in the year when lulu processing is slowest (February to July). While these possibilities have not been suggested by the women themselves, experience in KajoKeji—where honey and beeswax processing was initiated at the processing centers in 2007, generating additional income for those women—indicates the women are willing and eager to add other income-generating activities to the lulu low season.

The Lulu Works marketing department and the Lulu Works formulators have an incentive to formulate new products for the retail market as the costs of formulating, testing and launching new markets are relatively low in Kenya, and the potential return to these actors from the sale of new products would supplement current revenue. The Lulu Works marketing department, while pursuing trade partners in the international market, has an incentive to promote the all-natural, wild-crafted, non-certified organic and socially responsible characteristics of the value chain and Lulu Life products for those markets.

Potential trade partners in the international markets also have an incentive to promote these characteristics of the Lulu Life products as a means to increased competitiveness in end markets, following the example of other products successfully differentiated in the market under these banners. MEDIC has already experienced this with its current trade partner in the United States, which has been able to put a premium price on the Lulu Life body butter, in part for these very reasons.

MEDIC/Lulu Works has an incentive to incorporate any new actors in the processing function of the lulu value chain into the New Sudan Lulu Network so that all new use of the shea nut resource is governed by the values of the network.

Current distributors of relief commodities in South Sudan who wish to promote the development of the local economy have an incentive to purchase locally produced shea butter cooking oil and soap, as long as they can be assured that those commodities will be available in the amounts promised.

VALUE CHAIN PARTICIPANTS WITH INCENTIVES TO ADDRESS THE CONSTRAINTS

The Lulu Works women may have an incentive to receive a smaller oil processing or formulating fee if they understand this would make the end products more competitive, generating a greater volume of sales and higher revenue to them, and leading to a more sustainable industry in the long term.

Local nut collectors throughout the shea-growing belt, who with a regular and fair market for their product, could be encouraged to expand their normal annual collection and to improve their nut storage techniques and facilities.

IDPs and returning refugees—although not currently actors in the value chain—who are returning with more sophisticated business and literacy skills could be encouraged to take on marketing, distribution or retail functions in South Sudan.

Local private transporters, beginning to operate between Juba and the rural areas and within the rural areas, have an incentive to carry lulu commodities to local and regional markets thus expanding their cargo/package revenue. Cross-border transporters also have an incentive to back-load bulk oil from the county offices to Kenya, making their trips to South Sudan more lucrative. To date, MEDIC has utilized trucks it has hired for transporting items from Kenya to project sites in the Sudan, which then are contracted to back-haul lulu butter from the Sudan to Kenya. The commercial trucks operating within South Sudan now are relatively few[85] and provide service only along the main roads and between the main urban centers. The only commercial transport between smaller regional towns and urban centers are the recently operating mini-vans used primarily to move people. Contact has been made in Mundri with local mini-van operators to ascertain prices for moving lulu product from there to Juba, but the quoted charges per kilogram are not only prohibitive but varied at the whim of the driver, as there are no facilities for weighing the packages and no competition.

[85] On a recent 4-hour trip from Rumbek toward Wau, along the main and only road, we met 3 local commodity trucks and 4 mini-vans, out of a total of about 20 vehicles.

While there is a possibility of enlisting Khartoum-based manufacturers, transporters and distributors to provide some of the missing services in South Sudan, there is the risk of delayed or terminated services if current North-South tensions escalate, or of restoring old exploitive socio-economic power dynamics.

The Regional AGOA East and Central Africa Global Competitiveness Hub, which has agreed to support Lulu Works entry into the US market, has an incentive to ensure that this support is productive.

Swahili Imports, Lulu Works distributor in the United States, has an incentive to continue to provide critical information and marketing support for Lulu Life products in the United States.

There are increasing numbers of NGOs in Sudan offering short classes in business skills training. When available in the rural areas, the Lulu Works women, representing an organized and ongoing business, would be likely candidates for these trainings. American Refugee Committee has also offered to help MEDIC tailor their small business training curriculum to support the business practices and forms used in Lulu Works.

4. RELATIONSHIP BETWEEN VALUE CHAIN AND CONFLICT DYNAMICS

The sector is not related to and has not affected the wider North-South conflict, but realizing a sustainable income is a clear incentive for the value chain participants to resist future conflict. Neither has the shea butter industry figured in the peace negotiations, nor is it linked with any of the conflict parties. The shea tree-growing belt, located in the more southern parts of South Sudan, is not within the current North-South contested areas. However, potential conflict could arise if the GOSS leased or sold access to the resource to an outside company or investor. The tree-growing belt does span inter-ethnic areas within South Sudan, which could exacerbate current tensions if the rights to use those trees are not clearly and fairly defined in the new land ownership laws. At present, due largely to the lack of infrastructure and subsequent difficulty in reaching the trees in the commons, there is no known inter-ethnic dispute over the use of trees or the gathering of nuts, but there have been occasional disputes between local residents and IDPs, as those IDPs passed through lulu-growing areas with their cattle, burning the grass at the lulu flowering stage and damaging the lulu harvest.

The sector at the present time—primarily a result of the current scale of the industry – does not present significant opportunities for illegal economic activities or corruption. It is hoped also since the value chain is predominated by rural women actors, the incentives for such behavior will be minimized, but as the industry grows and generates more revenue, it is reasonable to assume there will be increased opportunities for this. Because the laws of South Sudan governing the ownership and use of natural resources have not yet been established, there is some risk that 'greed' may play a role in determining those laws. There is also the risk that the laws being formed will not favor women as the primary beneficiaries of the development of the industry. Further, in the absence of explicit laws regarding natural resource use, there is the ever-present risk that someone in a position of power, in either the North or the South, will recognize, or be offered, the opportunity to capitalize on this potential for personal profit.

The development of the shea butter industry provides opportunities to promote common interests between the divided groups in the South, as the various ethnic groups are encouraged to use the shea resource to create an end market product under a single brand and a single set of quality and equitable distribution criteria. The lulu processing groups are characterized by either single ethnic communities, or with a mixture of a few at each center. In the latter case their common income earning cooperation has brought greater harmony and mutual support from amongst the different communities—solidarity has increased both within and between communities because of participation in a common venture.

There were no threats to the women or the lulu tree from the SPLA. Indeed they were and continue to be some of the biggest supporters of the project. In the early years the main security threat came from the northern government

which regularly bombed, at random, several towns in the South. The two towns of Mapel and Lui where lulu activities were taking place were sometimes targeted, but these bombing assaults diminished in the run-up to the CPA. Insecurity for the women nut collectors was a major concern on a two occasions. Having gone to the forest to collect nuts some women were raped by IDPs who passed through those areas. While the lulu trees were never intentionally a target—lulu trees are traditionally revered and protected—there continues the practice of late burning of grass, which when done during the lulu flowering stage can virtually destroy the whole of that year's potential harvest across large swaths of land—an ongoing problem in most of the shea stand across the continent. This is something that is beginning to be controlled by communities who are increasingly aware of lulu's exceptional value, even without the legal force of central legislation.

III. RESEARCH HYPOTHESES AND ANALYSIS

HYPOTHESIS I

Following protracted conflict and with near-total absence of market activity, basic support services or an enabling environment, the value chain approach can contribute to (re)building markets by providing a framework to:

1. Identify industries—within an environment lacking market activity, basic support services and an enabling milieu—that have the best potential to be viable and competitive, to contribute toward broad-based economic growth, and to have socio-economic impact that can reduce potential conflict.
2. Identify existing and missing assets and links in the value chain and to identify points of intervention and sequencing to strengthen the value chain and to increase the supply and demand of production and services.
3. (Re)build the external and internal markets in patterns that do not support the pre- and conflict-based predatory power dynamics, and in a manner that will ensure equitable benefit distribution and reduce potential new conflict.

ANALYSIS

1. INDUSTRY SELECTION

MEDIC's experience indicates the value chain framework is useful as a tool for selecting an industry in a severely compromised post-conflict environment. Though the current value chain tools were not available to MEDIC in 2000, when the potential of the shea nut resource in South Sudan was being investigated, the decision to select this industry was in fact based on several of the guiding principles of the value chain framework:

A. Potential for competitiveness and long-term sustainability

B. Potential for quick results

C. Potential to have a socio-economic impact

A. POTENTIAL FOR COMPETITIVENESS AND SUSTAINABILITY

Prior to selecting the value chain, MEDIC knew from long experience working and traveling throughout South Sudan that the shea nut forest represented an extensive and completely underutilized natural resource, still commonly owned by the local community. It was obvious that a resource of this size had the potential to generate a revenue stream for the people of South Sudan.[86]

Through interaction in the late 1990s with the director of the Shea Project in Northern Uganda, MEDIC learned that there was a robust and increasing demand for high-quality shea butter by the international skincare and cosmetic industry, and that there was growing awareness in this buyer community of the unique characteristics of the northern Ugandan and South Sudanese *nilotica* sub-species, which make it preferable for use by this end market. This

[86] Unofficial estimates of the size of the lulu stand indicate that as much as 100,000 tons of oil could be extracted annually from this resource.

information suggested that if a shea butter industry could be established in South Sudan that focused on producing high-quality shea butter for the international skincare and cosmetic industry, it would have a competitive advantage over West African shea butter.

MEDIC was also aware, from personal exposure to the US market, that there was a growing consumer demand for products that were organic, all-natural or chemical-free. In selecting the processing technology for the development of the shea butter industry, MEDIC therefore opted for a technology package that would accommodate this market demand by producing a non-chemically extracted, 100 percent natural, cold-pressed shea butter. Since most West African shea butter is extracted by boiling the nut paste, it was felt the processing technology would add another competitive advantage to Sudanese shea butter over West African shea butter, and position Sudanese shea butter at the very top end of the international market. Also relevant to this competitive advantage was the fact that the shea forest in South Sudan had never been exposed to chemical fertilizers or sprays, a direct consequence of the war, establishing the possibility for organic certification at some point in the future. To leverage this potential advantage, MEDIC initiated record keeping of the provenance of all the nuts collected and the oil produced, knowing this would be instrumental in securing future certification. The early vertical integration of the industry facilitated both the careful control over processing technology and the documentation of provenance, creating another competitive advantage over the more horizontally organized and less controlled collection and processing conditions in West Africa.

B. POTENTIAL FOR QUICK RESULTS

The traditional use of shea butter and the traditional methods of production were still intact during and at the end of the war, which meant Sudanese women were well aware of the value of shea butter and, when asked, were receptive to improving their production capabilities. Because the cold-press technology in use in northern Uganda represented a simple upgrade and adaptation of traditional practices, had low capital requirements and was available for purchase and transport to South Sudan, the timeline for implementation was quick and the cost reasonable. Within the first six months of operation, the women were producing a commercially viable product.

To create immediate income for the women, while more lucrative markets were established, MEDIC decided to subsidize[87] the sale of shea butter cooking oil, soap and skin moisturizer in the local markets. Because shea butter products were already well known and desired, a ready market existed for these subsidized products. The need to garner immediate and essential support from the local community and government for the development of the value chain was also facilitated by this strategy. It demonstrated to them that this much-revered local resource could be upgraded into high-quality consumer products, that the local community could benefit from this upgrading, and that the resource should be conserved. MEDIC also initiated a program to sell subsidized cooking oil and soap to organizations supplying relief commodities, as a means to generate more income for the women processors and to position more commodity in the local markets.

While MEDIC continued to subsidize the sale of lulu products into the local market and lobby relief organizations to purchase locally produced lulu oil in lieu of imported food oil, the organization also began to explore the potential of the established and vibrant markets in neighboring Kenya. During the second season of production, MEDIC exported a small amount of cosmetic-grade shea butter from the processing centers in Bahr al Ghazal and began to test the market for lulu skincare products with the international and local community in Kenya. It was anticipated that this market would be large enough to add significantly to the sales revenue coming from the local Sudanese markets. Placing the product in Kenya would not only create more income for the women from the higher return on the product, but also begin to create visibility for the value chain in the international marketplace.

[87] It was well understood that local markets for any lulu products would be severely constrained by the low personal income on the part of all potential purchasers, by the abundance of relief oil in local markets creating a price depression for this product, and by lack of access to potentially larger markets in the government-controlled garrison towns or Khartoum.

C. POTENTIAL TO HAVE A SOCIO-ECONOMIC IMPACT

Because the development of the shea butter industry in South Sudan was specifically targeted at the rural women who were the traditional custodians of the resource, it embraced and validated an existing, equitable socio-economic structure while infusing it with new potential. By building the industry around this tradition, a precedent would be established for the legal right of women to be the primary beneficiaries from the development of the industry, and for the local community to be the owners of that resource. By expanding the amount and quality of edible oil available each season from the shea harvest, the industry could impact the food security of resident households and the returning populations of South Sudan, contributing to the sustainable subsistence of the communities that live with the tree. In addition, the growth of the industry would provide everyone with a reason to preserve the resource.

While targeted at providing a livelihood for rural women in South Sudan, the development of the industry clearly had the potential to positively impact other actors directly associated with the value chain: nut collectors, transporters, traders and retailers. Revenue from the production and sale of shea butter products would allow all industry participants to begin to improve post-conflict standards of living and influence future options for them and their families.[88] With steady incomes, value chain participants could begin to contribute to the economic growth of local communities, through both their own increased economic stability and through the infusion of cash from their value chain-derived incomes into the local economy. Their involvement with a growing and potentially profitable industry would increase their confidence, self-esteem and status, positioning them to engage more actively in community-based planning, organization and decision-making. The development of the industry would create opportunities for dialogue among the various actors in the value chain and with local civil society and government leaders. In addition, the collaboration and equitable, transparent distribution of benefits among all actors in the value chain would increase trust among all parties.

Conclusions: From MEDIC's experience, when selecting a potential industry for development in a severely compromised post-conflict environment, the most critical factors are:

1. the possibility for both short- and long-term competitiveness of the industry;
2. the potential to provide equitable socio-economic benefits to the local community;
3. an achievable link to a functioning market for the industry's products;
4. the ability to build on an existing skill set of the resident population, requiring minimal upgrading of either the human resource capabilities or technology; and
5. the potential to provide quick results, since the timeframe to potential sustainability is so long and the path dependent on many factors other than those under the control of the implementing agency.

2. IDENTIFYING ASSETS AND INTERVENTIONS

The industry selection process identified that, while potential markets existed for the product, and the actors involved in the collection of nuts and processing of oil existed, all other actors, linkages and support services were missing. The following key assets were identified as missing in South Sudan:

- The complete absence of any manufacturing industry in South Sudan to supply the required input commodities for the processing and packaging of oil

[88] Lulu Works women are in fact reaping these benefits: they now have money to purchase food, clothing, medicine and pay school fees; many have purchased land, are repairing and upgrading their homes, or have started personal savings; some have invested in other business opportunities.

- The absence of domestic transport services to move supplies and product to processing centers and from processing centers to potential markets or distribution points in Sudan or in Kenya
- The absence of any telecommunication services to communicate with or between the actors
- The absence of actors and links to formulate and package end-market products for the urban domestic and international markets
- The absence of actors and linkages between the rural processing groups and the urban domestic and international markets
- Diminished capacity of human capital at all levels of the value chain
- The absence of any regulatory or business enabling institutions

MEDIC's sequencing of interventions to provide the missing actors, services and linkages was determined by balancing the importance of the need with the financial resources available at that time. While a long-term implementation plan was seen by MEDIC as essential in the South Sudan environment, it was impossible to pursue without corresponding long-term funding. In the absence of long-term funding—and a subsequently shorter implementation horizon—MEDIC initiated the following sequenced interventions:

- **Introduction of support services.** Without the first two support services—input supplies and transportation—the traditional production functions could not be upgraded and shea butter products could not be manufactured that would meet the demands of the urban domestic and international markets. With no other actors in the sector in South Sudan, MEDIC intervened at the outset of the industry development to supply these support services.[89] Seven years later, and almost three years after the signing of the CPA, MEDIC continues to supply these services as there are still no manufacturing facilities in South Sudan to supply input commodities,[90] and transport services are only available on the main roads and between major towns. [91] Although many of the input commodities now could be purchased in Khartoum,[92] the cost of these commodities is much higher than purchasing and transporting from Kenya, the transport time from Khartoum to Juba is long,[93] and the commodities would then need to be moved by road from Juba to the processing centers, which if possible, constitutes additional cost, time and security issues.

  To ameliorate the absence of telecom services, MEDIC equipped county offices first with high-frequency radios, and more recently with satellite phones. Both have their drawbacks,[94] but have been instrumental in

[89] MEDIC often utilized transport services within its own network and organization, coordinating and combining loads of supplies with its water-drilling partner. The back-loading of bulk shea butter by road and air has been utilized since 2001, providing an incentive for the development of the transport service sector.
[90] A plastic water bottle manufacturing plant has just been established in Rumbek. The plant can produce 500ml plastic bottles that could be used for supplying cooking oil to the domestic markets, although the price of these bottles is 3.75 times higher than purchasing and transporting the bottles from Kenya: the 500ml bottles cost $.45 each from the Kenyan-owned manufacturer in Rumbek, and only $.09 in Kenya. See Appendix 13 for Sudan packaging costs.
[91]Over the last two years there has been a growing group of Ugandan, and to a lesser extent Kenyan, traders servicing the urban markets in South Sudan. Though these traders are now moving regularly on the major roads between the border towns and the urban centers, there is still very little transport available to any destination off these major routes.
[92] Containers and retail product packaging, soap making ingredients and perfumes are all available in Khartoum.
[93] The most economical mode of transport is by river, a ten-day trip, and the only ports within the shea growing region where commodities can be unloaded are Juba and Shambe.
[94] Operating a radio in South Sudan required employing an SPLA radio operator, and the ability to communicate was often compromised by weather conditions. The use of satellite phones is very expensive, adding $1,200 to MEDIC's monthly operating budget.

developing the value chain. These services are still being provided by MEDIC in all counties except KajoKeji—where limited cell phone service is available from the Uganda network—as telecom services only exist within the main urban towns.

An alternative approach that could have impacted the cost of developing the industry, would have been to establish the processing centers only in the shea tree growing area that is closest to Uganda. This would have positioned the industry to take advantage of the services developing around the cross-border trade that has followed the signing of the CPA, and could have shortened the timeline for turning over these services to other providers. Operating in only one area would have decreased the management and support issues and costs MEDIC has faced, but with the corresponding impact of providing the benefits of the industry to only one ethnic group and increasing the potential negative impact of a bad annual harvest.

- **Product development technical support.** As the production facilities established in early 2001 began to produce high-quality cold-pressed shea butter, it became obvious that there was a need for product formulation and retail packaging services to prepare the products for the retail end market in Kenya. Coupled with the absence of required manufacturing services in South Sudan, MEDIC was not confident that formulation and packaging actors in Sudan could meet the standards of this market, and therefore decided to place those actors and facilities in Kenya. While it would have been possible to pass these functions to a commercial agent in Nairobi, the result would have defeated the goal of keeping the value-added functions and benefits with Sudanese women. Therefore MEDIC sponsored the training and establishment of a group of Sudanese refugees in Kenya as shea butter formulators and packagers. This group continues to formulate and package all Sudanese shea butter products that are sold into the Kenyan and international markets.

- **County-level facilitation and coordination.** To meet the quantity and quality demands of the international market, and prepare for the demands of the domestic urban market, actors were needed at the county level in Sudan to coordinate the production at the various rural processing centers (which included purchasing and storing the processed oil), to perform a quality control function, to link the producer groups with the existing markets, and to pass market information and upgrading skills back to the processing groups. With few actors in rural South Sudan with either marketing or administration skills, MEDIC realized it would be necessary to train and employ personnel to perform these functions at the county level.

- **Marketing support.** By 2006, with both an expanding market in Kenya and the potential of entering the US market, the need for a dedicated actor[95] in Kenya to provide a link between these markets and production in Sudan became apparent. Although this function might have been outsourced, MEDIC was concerned that, without in-depth knowledge of the conditions in South Sudan, the quality of the link would be inefficient and unreliable.

- **Functional literacy training.** By the conclusion of the protracted conflict, few in-country South Sudanese women had the skills or experience to manage a business. Although the most qualified women in the rural areas were recruited for the county coordinator positions, and most of these women had strong residual leadership capacity, few had the literacy or numeracy skills required for the development of the industry. In addition to continual one-on-one tutoring from MEDIC expatriate staff, functional literacy training was initiated for these coordinators. Two three-week training sessions have been conducted,[96] but MEDIC lacks the capacity to fully and productively implement this training. Until these services can be provided by a local

[95] Until this time, one of the three MEDIC expatriate staff working with the project had managed marketing tasks.
[96] A session was held in 2005 and another in 2007, both with the support of TROCAIRE.

institution or by another implementing agency, one-on-one mentoring by MEDIC expatriate staff proves to be a more effective way of transferring these skills.

- **Local ownership through partnership agreements.** While formal regulations are being developed regarding the use of natural resources, business development and trade, MEDIC developed and implemented a Partnership Agreement[97] to encourage the participation and support of the local community and civil and government authorities in the development of the shea butter resource as a community-owned and -operated industry. The presentation and use of this Partnership Agreement is the first step in establishing a rural processing group. It is suggested that after signing the Partnership Agreement, a local steering or advisory committee be established to mediate thereafter between the community and the processing group. Though this committee has only been active in one county, the support and involvement of Forestry Department or SPLM/Southern Sudan Relief and Rehabilitation Commission representatives has been instrumental in the continued development of the industry in almost all locations. It was also hoped that the establishment of a widespread, profitable industry model based on the local ownership of the resource, would impact GOSS policy on the use of that resource. [98]

MEDIC's ability to provide the required missing assets and services at the time they were needed has often been compromised by the lack of funding to support these activities.

MEDIC's exit strategy from the direct provision of services has been postponed beyond the initial projection of three to five years, to a more realistic timetable of seven to ten years, due to the delay in establishing roads, basic support services and manufacturing facilities, and the longer-than-expected timeframe to upgrade the capacity of the value chain actors.

Conclusions: To lay the groundwork and begin to develop an industry in a severely compromised post-conflict environment, MEDIC's experience indicates it is essential to have an accurate assessment of the existing and missing critical services and actors that are needed to link inputs to production and production to functioning markets. This assessment should inform both donor and industry development strategy and the provision of strategic subsidies. Providing the critical missing actors and services and building these links will enable the industry to realize quick results and establish the structure for linking to final markets in the post-conflict society when such markets are functioning. It is likely that the provision of missing assets will require direct intervention. Sequencing of these interventions can be facilitated by:

- a plan at the outset of the industry development that accounts for the missing assets and the required interventions;
- a realistic timetable for implementation that considers the development of support services that are outside the control of the value chain; and
- a source of funds that is sufficient in amount and duration to implement the plan and interventions.

[97] See Appendix 14 for a copy of this agreement.

[98] Although we were not able to read the proposed legislation regarding the use of the shea resource that is now before the GOSS legislature, we have been told by Forestry Directors in the Ministry of Agriculture in Juba that this legislation reflects the Lulu Works model.

3. (RE)BUILDING MARKETS

As described in Section 1: Analysis of the Post-Conflict Environment, the markets in South Sudan that existed pre-conflict and during the conflict were characterized by exploitive and unequal relationships, with the majority of the population surviving from the soil, whether as cultivators, herdsmen, or hunters and gatherers. During the short 'peaceful' hiatus initiated by the Addis Ababa Agreement in 1972, several large-scale productive schemes[99] were initiated in the South, based on state ownership and Southern wage labour. While there were indicators that these large-scale schemes would not succeed,[100] the resumption of the conflict in 1983 ended these efforts.

Initiated as a response to the end of the first war in 1972, a relief economy in South Sudan has been the dominant economy since, creating the expected distortions in rural markets. This relief economy was exploited by both the GOSS forces stationed in and around the garrison towns, and by the SPLA in the areas under their control. In the SPLA-controlled areas there was a limited amount of petty trading[101] across the borders with Uganda, DRC, Kenya and Ethiopia, but this trading was always limited by the absence of buying power in the consumer communities.[102] The majority of trade in rural markets was based on the barter exchange of soap and salt for other products.[103]

As a result of this history, virtually no vertically integrated markets existed in the South prior to the conflict, during the conflict and, since 2005, in the post-conflict environment. Productive capital-based enterprise is clearly an indispensable option for development to take place in South Sudan. The direction of that development will be significantly influenced by the structure and ownership of that productive capital. With this in mind, MEDIC foresaw three possible scenarios driving the development of the shea butter resource in South Sudan in the event of a peace agreement:

1. Following the West African model, South Sudan could become a supplier of raw shea nuts to Northern buyers or international bulk buyers, at industry or below industry standard prices for that commodity, and returning the lowest value of that resource to the population in South Sudan.
2. Private capital, from the North or from outside Sudan, could be invested to establish a capital-intensive shea butter extraction enterprise in the South, making use of a low-wage work force drawn from the population in the South.
3. A vertically integrated industry could be established that transformed the shea nut resource into valuable end products and that would be owned and managed by those who have lived with and been the traditional custodians of that resource for generations.

MEDIC chose the third model in the belief that this model would:

- create sustainable improvements in food security, based on the use of the shea butter fruit and oil;
- strengthen and diversify rural livelihood opportunities;
- stimulate local economic growth;
- provide a basis for collaborative natural resource management;

[99] A tannery was started in Mongola, a sisal factory in Tonj and a canning factory and a beer factory were started in Wau.
[100] During this period, South Sudan had very little of the physical infrastructure or support services needed for business development.
[101] This trading consisted almost entirely of bicycle travel across the borders.
[102] In addition to no private working class, no salaries were being paid by the SPLA/M and no salaries were being paid to the volunteer civil service.
[103] Even many NGOs paid their non-management staff in soap and salt, as these were more useful than currency in the local economy.

- provide a platform from which to explore and develop the broader issues of producer-owned production and trading associations; and
- create socio-economic opportunities for the women of South Sudan.

The opportunity to make this choice was a result of the absence of any existing shea nut industry in South Sudan and the absence of any central government policy regarding the development of the industry. But the mandate to pursue this opportunity came from the existing stakeholders interviewed and consulted prior to the intervention. To demonstrate this new model, MEDIC positioned the first processing centers near potential rural markets and used initial production to place subsidized oil in these markets. Although not cost-covering, the intent was to give visibility to the potential of the industry, and to build confidence with the authorities and the communities that there was an alternative to what had been a source of exploitation in the past. MEDIC then expanded as quickly as possible to three other counties in the shea belt to demonstrate that this industry had the potential to impact a broad spectrum of women and communities in South Sudan and their communities.

Conclusions: MEDIC's experience indicates that there may be a window of opportunity at the end of a conflict to use the value chain approach to help identify an industry that could become an alternative to the exploitive trade relationships of the past by promoting the use of a natural resource in an equitable and sustainable fashion, providing an equitable distribution of the benefits of the development of the industry to the value chain actors (through value-added functions), connecting to appropriate market channels, and creating opportunities for continued competitiveness, while integrating marginalized actors so they derive socio-economic benefits and have an incentive for peace. No presumption is made that the potential for conflict will be reduced, since the key actors for conflict to resume are mostly outside the lulu value chain; but at least an organized voice with an incentive for peace to prevail would come from among the lulu actors—many of whom were SPLA fighters during the conflict.

HYPOTHESIS 2

Horizontal and vertical value chain linkages can help connect conflict-affected economies with functioning markets by:

- providing and facilitating key missing functions;
- facilitating and accelerating short-term impact; and
- transferring market information and technical skills from functioning markets.

ANALYSIS

Historically, in the traditional Sudanese shea butter value chain, there were no known horizontal linkages and only a few strategic vertical links. There was a vertical link between the village nut collectors and the village processors, and a direct vertical link from the village processors to their immediate rural market. In the pre-conflict economy there was a vertical link between certain villages in the lulu range and the Northern *jellaba*, who would purchase the oil either from the processors directly or from the local market, and then move it by truck to markets in North Sudan. During the conflict, a small amount of this trading still took place, particularly in and around the garrison-held towns. In the post-conflict environment, with the departure of the *jellaba* from much of South Sudan, this link has broken down, except in the towns north of Wau and in Wau itself, where there are still some Northern traders.

The development of the new value chain capitalized on the existing vertical link between nut collectors and village processors, using that traditional link to furnish the Lulu Works processing centers with nuts.[104] As critical support services and actors or functions were identified as missing, MEDIC made use of vertical linkages to incorporate these missing elements. The alternative—waiting for the development of these necessary actors in other sectors of the economy or by other potential actors in the value chain—would have impeded the start-up and operation of the industry and stymied the industry's access to functioning markets. Using vertical linkages to integrate these functions put in place the support systems necessary to start the industry, and created a path to functioning markets where none existed. It accomplished these goals in an efficient and relatively short timeframe, thus facilitating a quick return to the value chain actors and laying the foundation for connecting to markets in Sudan once they were functioning. This vertically integrated structure, very significantly, linked the shea butter value chain to market channels that would distribute the benefits back through the value chain equitably.[105]

These integrated vertical linkages also provide the critical function of passing information from the market back down the chain to the village producers; in an environment with no telecommunication facilities, it would be time-consuming and almost impossible to transfer this information otherwise. The vertical integration also facilitated the transfer of new technology and upgrading skills to the value chain participants.

A key component in MEDIC's planned exit strategy has been the establishment of two private companies:

- Lulu Works Sudan was first established and registered as a company in 2004 with the New Sudan Secretariat of Commerce and Supply. With the organization of the new government after the CPA, Lulu Works Trust Ltd. has been re-registered and incorporated with the GOSS Ministry of Legal Affairs and Constitutional Development and registered with the Ministry of Agriculture and Forestry.
- Lulu Works Trust Ltd. Kenya was established and registered in 2005 as a company limited by guarantee with the Registrar of Companies in Kenya.

The purpose of establishing these two companies was to create a private business structure that would take over all industry development and support activities from MEDIC. It is envisioned that Lulu Works Sudan will manage the operations and upgrading activities of the shea butter production in Sudan—including the replacement of the commodities input function as those services become available in Sudan—and the formulation, packaging and marketing of shea butter products in Sudan. Lulu Works Kenya will manage the formulation, packaging, marketing and sale of Sudanese shea butter products in Kenya and, for the foreseeable future, in the international market. Leadership and management positions in these companies will be handed over to Sudanese, or in Kenya to the Sudanese and Kenyans, as actors are trained and prepared—through mentoring, formal training and exposure to market dynamics—to take over these functions. For the Lulu Works company to operate successfully in a competitive environment, the intent is for it to be comprised of three separately managed (but coordinated) departments: production, formulation and marketing. Under a common worker-ownership structure, returns to the company actors should be fair; they would also be bound by the common objective to compete successfully in the larger business environment.

While vertical linkages characterize the new shea butter industry in South Sudan, two horizontal links have been established. MEDIC's original objectives in creating a horizontal link in the value chain were:

- to provide more extensive access to nuts from the annual harvest by establishing distributed rural nut CPUs;

[104] The benefits of maintaining and developing this link were more revenue to the local nut collectors, with no decrease in traditional oil production, while providing the processing centers with the necessary raw material.
[105] The wholesale market channel in Kenya returns, per liter sold: $1.25 to the nut collectors, $5 to the women processors and $5 to the women formulators/packagers. This represents approximately 31 percent of the wholesale price of product in Kenya.

- to spread the benefits of the improved oil processing technology to a larger group of rural women, increasing their household food security;
- to extend the potential socio-economic benefits to the most marginalized of rural women, those living in very remote rural locations; and
- to mitigate the effect of a poor annual nut harvest in one part of the shea tree-growing belt.

To achieve these objectives, MEDIC established CPUs around the two original processing centers and soon thereafter expanded into three new shea tree-growing areas.[106] The results of this horizontal expansion have been mixed. Undoubtedly, the strategy has allowed more rural women to benefit from the technology, reducing labor time to make oil, providing an opportunity to earn income from the sale or barter of lulu oil and soap and increasing food security in those communities. The opening of processing facilities in these new areas has distributed the opportunity to a larger cross-section of ethnic groups. However, the lack of passable feeder roads to these remote rural processing centers during the rainy season, which is also the nut harvest season, has limited their potential to supply nuts to other processing centers and handicapped MEDIC's ability to support these centers. The support and management of these centers has necessitated adding new facilities and administrative staff in each county, plus transport and storage facilities, adding significantly to the recurring overhead and putting stress on MEDIC's small senior management staff. Nevertheless, six of these rural CPUs, in the county of KajoKeji, have produced 90 percent of the oil exported to Kenya during the last two years.

MEDIC has also learned from this horizontal expansion across ethnic boundaries that the viability of horizontal expansion is impacted by traditional work ethics, and the long-term sustainability of the industry may require pulling back from those communities where physical labor is not an attractive livelihood option.[107]

One other horizontal link, the New Sudan Lulu Network, has been established in the value chain. Set up in 2001 to act as a coordinating and governing body for all industry actors in Sudan, [108] it is anticipated that the NSLN will also facilitate the transfer of market information back to the industry and encourage competitiveness among actors. While to date there have been few other actors in the industry,[109] it is anticipated that this may change with the new push by the GOSS for outside investors and business development.

CONCLUSIONS

In a post-conflict environment where many actors and services are missing and there is little remaining local capacity, MEDIC's experience indicates that developing an industry will be facilitated through hierarchal vertical linkages. These linkages will help to:

- supply the key missing functions or actors in a timeframe that does not slow down industry development and is complementary to the objectives of the industry;

[106] See Appendix 15 for a map of the current distribution of processing centers in South Sudan.
[107] Though much of the work ethic in Sudan has been influenced by the long-term distribution of relief commodities—creating a dependence on handouts in lieu of work—it is an indisputable fact that some ethnic groups have a long tradition of 'sweat' equity, such as the agriculturalists of KajoKeji, as compared to the pastoralists of Bahr el Ghazal.
[108] See Appendix 11 for a copy of the NSLN founding principles.
[109] The Diocese of Rumbek (DOR) is the only other organization currently operating shea butter processing centers. Trained by Lulu Works staff in the use of the improved technology and processing technique, DOR supports two processing centers in Rumbek. Product is sold from a small store located at the DOR compound in Rumbek and soap is distributed to various DOR sponsored programs in the south.

- create a path to functioning markets, either within the conflict environment or in a neighboring market, that will produce quick results for the value chain actors;
- facilitate a strong and beneficial relationship between the industry producers and the end markets;
- facilitate the transfer of vital information from the market back down the value chain; and
- facilitate the incorporation of this market information into timely and effective upgrading.

HYPOTHESIS 3

End markets can best be used to drive upgrading and value chain development through the transfer of market information down the value chain if there is a mechanism or value chain actor to receive this market information, if the linkages exist to transfer (effectively and efficiently) this market information down the value chain, and if the value chain has the means to respond to this information.

ANALYSIS

The development and upgrading of the Sudanese shea butter value chain has been driven almost entirely by marketing information passed back to the value chain from the end markets. While information from the international market has played a role in this upgrading, information from the end markets in Sudan and Kenya has been more instrumental in this process.

Although the initial aim of the project was to sell products to the rural domestic market, when trying to do so it was apparent that this market had no buying power and the products could only be sold if subsidized or sold at a loss. This scenario critically threatened short- and long-term sustainability of the project. It drove the decision to seek a market in Kenya where an educated public, with buying power, could form the vital end link in the value chain and ensure an income for the producers based on sales. In part this decision could be acted on swiftly because MEDIC already had a logistics supply base in Kenya.[110]

The move in 2001 to develop a retail product and packaging was driven by customer demand in Kenya. This demand also drove the development of a formulating and packaging group for the industry. The incorporation of essential oils and fragrances in the body butter retail product was the result of customer demand in Kenya, as was the addition of soap and a lip balm to the product line.

The demand in the international market, and the growing demand in Kenya, for all-natural products[111] has influenced the oil-processing methodology and the development of new products to satisfy this demand.

The demand for organically certified products[112] in the international market has influenced the upgrading of the production process to prepare for certification. These upgrades include:

- the tracking, at all production centers, of the provenance of the nuts used in the production of the oil and the labelling of all bulk oil with the production location and date of production;
- the introduction of headscarves and disposable plastic gloves to be used by the women producing the oil;

[110] MEDIC had been implementing a borehole-drilling program in South Sudan since 1990 and the same lack of support service issues necessitated the purchase and import of all drilling equipment and supplies from Kenya and abroad.
[111] The natural and organic personal care sector grew in the US in 2006 by 13 percent, while the conventional personal care grew by less than 2 percent. (Source: Nutrition Business Journal)
[112] The organic personal care sector grew in the US in 2006 by 24 percent. (Source: Nutrition Business Journal)

- the use of thermometers in the clarification process to ensure the oil is kept at a temperature that preserves the highest level of nutrients in the oil;
- the introduction of solar tunnels for improved drying of nuts, resulting in higher quality oil; and
- a standardized written production methodology that is implemented in all production centers and supervised by the county coordinators.

The demand in both the international market and in the Kenyan market for socially responsible products has driven the marketing emphasis. The large percentage of sales to doctors and customers with skin problems in Kenya has also influenced a marketing emphasis.

The demand in the international market for competitive packaging is driving the repackaging of the retail product for this market.

The value chain has been able to benefit from this market information because there is an actor—first MEDIC and more recently a sales/marketing director—who is in contact with the end markets. Because this actor is based in Kenya, she is able to interact directly with the largest end market and is in easy communication with the other markets. This actor has been able to receive information from the end markets, sort through this information to determine what has value to the value chain, and then transfer this information back to the value chain in a timely fashion. Without this actor, much of this information would not have reached the value chain, or would have transferred back in a haphazard or unreliable fashion. While it is possible that this function could be performed by an industry trade or governing body, this actor did not exist in the Sudanese value chain.[113]

Another precondition that has facilitated the dissemination of this information back down the value chain is the vertical integration of the industry. Even if the information were collected and assessed by an actor in direct contact with the end markets, if the value chain were not vertically integrated, it would be very difficult to ensure this information moved back down the value chain in a post-conflict environment lacking telecommunication facilities. The vertical integration of the value chain, and the subsidized provision of satellite phones to the county-level actors, ensured that the end-market information was passed back to the formulators and packagers, the quality control actors, and then to the oil producers.

A final factor that determines whether this information impacts the value chain is whether the value chain has the resources to transfer this information into industry development or upgrading. Lulu Works has relied to some extent on revenue from the sale of products to fund this upgrading, but the majority of the resources has come from donor funding, and upgrading is therefore limited to the extent to which donors are willing to fund these activities. A lack of certifying facilities in South Sudan has also limited the industry's ability to respond to end-market information—in the case of organic or fair trade certification—and may impact the sales to both the domestic urban markets and export sales if the government of South Sudan cannot provide the required certifications of the product, such as phyto-sanitary and Bureau of Standards certificates. Linking the value chain to the market in Kenya has facilitated the upgrading of product diversity by providing a relatively inexpensive ground for formulation, testing and trials of new products. The development of products for the Kenyan market has also influenced the Sudan market, as buyers in Sudan want these products once they see them.

A potential source of assistance for upgrading could be embedded services: Swahili Imports, Lulu Works' new US distributor, is purchasing all Lulu Life products FOB Nairobi and providing shipping, customs clearance and storage services for those products. Swahili Imports is also promoting, at their own cost, Lulu Life products at two national

[113] Besides a sales/marketing director who will continue to make consistently good decisions, Lulu Works requires the same from a field production director and a finance director for success of the entire value chain.

trade shows in the United States during 2008. Additionally, they have provided industry-specific information on potential wholesale and retail prices in the United States and have re-packaged individual Lulu Life products into a gift package for their website. This may indicate that service providers are willing to provide embedded services if the risk associated with those services is sufficiently low, or if the perceived potential competitiveness of the product is sufficiently high.

CONCLUSIONS

MEDIC's experience indicates that end markets can best drive upgrading and strengthening of the value chain when:

- there is an actor in the value chain who is in direct contact with the end markets;
- the information from the end markets can be passed back down the value chain efficiently and effectively because the value chain is vertically integrated and the value chain actors have a vested interest in communicating this information; and
- there are sufficient resources in the value chain to implement this information into appropriate upgrading or value chain strengthening activities.

HYPOTHESIS 4

To contribute to the foundation of a market-based economy following protracted conflict and with near-total absence of market activity, basic support services and an enabling environment, strategic subsidies should focus on strengthening key or weak functions or actors in the value chain to achieve both quick results and increased competitiveness, and should be correlated with assumptions regarding the development of the value chain.

ANALYSIS

While strategic subsidies are needed to develop critical infrastructure and support services—such as roads, transport, banking and telecommunications—the time required to develop these support services is often very long and the results unlikely to benefit the development of the industry in the shorter term.[114] MEDIC's experience indicates that strategic subsidies must also be used to achieve quick results while developing the value chain. The following strategic subsidies have been instrumental in helping the shea butter value chain achieve quick results:

- **Subsidies that allow the industry products to be substituted in the relief market.** The cooking oil produced in South Sudan is more expensive than the imported oil that is distributed through the relief markets. With subsidies, shea butter cooking oil can be substituted for the imported oil, providing quick results for the value chain actors while building the capacity of the value chain to service the post-relief food oil market.
- **Subsidies to enter the emerging local commercial markets.** Subsidies were used to introduce the industry's products into the emerging local commercial markets where purchasing power was constrained by low incomes.

[114] For example, millions of dollars have been allocated to building roads following the CPA, and yet after three years of post-conflict development, the main roads are still not passable year-round and development of feeder roads has not even started. One positive result of the road building initiative has been the more or less continual link with Uganda, and therefore Kenya, via the main west bank road.

- **Subsidies that support the introduction of products into functioning markets in adjacent countries.** Subsidies were used to transport/import, package and market the initial products in the functioning market in Kenya.
- **Salary Subsidies.** It is unlikely, in a severely impacted post-conflict environment such as Sudan, that the skill set and experience necessary to lead and manage the development of a new value chain will be available within the resident community, and those skills will need to be recruited from an expatriate population and paid premium salaries. MEDIC used subsidies to hire this expertise for the lulu value chain. Salary subsidies have also been used to hire and keep the best of the existing local human resource capital, which, because of its scarcity, is in high demand by relief and development agencies and the government—with salaries commensurate with this demand. Salary subsidies have also been used to recruit members of the Diaspora, although this has not been as successful due to the opportunities available to this community and their families in the countries where they reside.

MEDIC's experience indicates that strategic subsidies are vital in developing increased competitiveness in the value chain, as certain critical activities are difficult to cover through nascent value chain revenue. The shea butter value chain has used, and still requires, strategic subsidies for:

- research and product development;
- market research and development;
- upgrading or building missing industry tools and equipment;
- certification services, such as organic and fair trade certification;
- technical training/assistance;
- management and business administration training; and
- building scale in the value chain.[115]

MEDIC's experience also indicates that the timeframe for strategic subsidies needs to be correlated with assumptions regarding the development of the value chain. In a post-conflict environment lacking basic support services, the need for strategic subsidies constitutes a long-term commitment from the implementing and funding agencies. Because the development of the shea butter value chain in Sudan has been implemented primarily with relief funding, which is short term, this lack of long-term commitment has consistently hampered the development of the value chain. Also, traditional relief donors are not familiar or comfortable with marketing needs and requirements and are therefore less willing to subsidize these expenses. In addition, there is now a problem in South Sudan of having to switch from relief agency funding to development agency funding, with no mechanism in place to assist or bridge this handover.

CONCLUSIONS

MEDIC's experience indicates that, in a severely compromised post-conflict environment, long-term strategic subsidies are needed to build or strengthen value chain functions and actors. While strategic subsidies are essential for building support services, the development of these support services in a severely compromised environment is too

[115] In addition to using strategic subsidies to establish and support additional nut collection and processing centers in new areas—in this case developing the scale of the industry—subsidies are needed to build infrastructure for the value chain actors, which will facilitate increasing the scale of output: transition from mud and thatch facilities to permanent processing and storage facilities, installing electric power capability, and drilling boreholes adjacent to or within processing centers.

slow to impact the industry in the short term. Therefore strategic subsidies are needed to bridge this development gap and strengthen the value chain actors and functions so that the industry can achieve quick results and increased competitiveness.

IV. SUSTAINABILITY OF LULU WORKS AND MEDIC'S EXIT STRATEGY

The sustainability of Lulu Works needs to be addressed at four levels: financial sustainability, management sustainability, structural sustainability and political sustainability. Each is addressed in its own section here.

A. FINANCIAL SUSTAINABILITY

1. HISTORICAL COSTS/RETURNS

To put into perspective the projections for the financial sustainability of Lulu Works, it is useful to see progress over the last eight years of operations. Table 1 summarizes four key indicators from 2000 to 2007. The first three years focused on i) a pre-feasibility study, training, strategy development and the initial establishment and equipping of two lulu centers; and ii) the development of working methodologies and protocols for production and marketing and community-based institutional frameworks. This was followed by expanding into several other locations with their attendant costs in management, training, capital, supplies and transport. The substantial increases in budgets in 2003-04 and during 2006-07 reflect the cost of urgently needed vehicles to adequately cover such widespread operational locations. A Nairobi office and staff were established, and (for the first time) four expatriate salaries were funded for two years.

Table 1. Summary Indicators of Lulu Works: 2000-2008

Table of Lulu Works Funds and Participants								
Detail	**Year 2000-01**	**Year 2001-02**	**Year 2002-03**	**Year 2003-04**	**Year 2004-05**	**Year 2005-06**	**Year 2006-07**	**Year 2007-08**
Value Chain Participants	**187**	**300**	**429**	**542**	**775**	**825**	**930**	**1035**
Sudanese Income Earners	**185**	**298**	**426**	**538**	**771**	**821**	**926**	**1031**
Total Project Costs, US$	**37,705**	**94,450**	**149,570**	**210,291**	**93,326**	**657,226**	**900,000**	**223,430**
Returns, US$ Sudan and International Sales	**0**	**6,234**	**11,955**	**12,375**	**20,670**	**36,369**	**26,747**	**79,699**

2. SUMMARY PROJECTIONS OF REVENUE/COST/PROFITABILITY

MEDIC has learned the difficult lesson that it is strategically more sensible to consolidate first, before further expansion into very difficult terrain without adequate capacity to manage. Unfilled budgets, failed partnerships, variation in harvest yields and differences in work ethics have all contributed to differences in production performances among the different communities. MEDIC has therefore identified the two key county performers (Kajo Keji and Jur River/Wau) as having the greatest potential for financial viability in the medium-term. Their combined operational/return budgets are given in Table 2, and may be more attractive to certain donors who wish to see a business plan that will yield a quicker return on investment. For the other six counties, where a longer gestation period is required for achieving financial sustainability, a development budget is presented in Table 3. MEDIC does

not intend to abandon these less productive areas since there are good reasons for their sustainability being achieved over a longer period, and are presenting this budget to donors who are well aware of the difficulties and challenges of working in the South Sudan. Although this is not a MEDIC exit *per se*, it does recognize the different time horizons required in different locations under different conditions, and, therefore, MEDIC's tailored interventions for these different environments in pursuit of a sustainable industry across the range of locations.

Table 2. Projected Project Costs and Returns (Two Counties)

Year	2008	2009	2010	2011	2012
Total Operating Budget	356,000	383,000	423,000	456,000	494,000
Gross Sales	270,000	540,000	810,000	1,215,000	1,822,000
Contribution Margin (50%)	135,000	270,000	405,000	608,000	911,000
Net Profit (loss)	(221,000)	(113,000)	(18,000)	152,000	417,000

Projected sales are based on several factors. Sales of the products have on average doubled almost every year, with a leap from 2006 to 2007 due to aggressive marketing in Kenya. It is projected that this trend will continue in the region in the following years. Sales also include those to the United States and other export markets. Currently, negotiations are occurring to provide bulk product as well as product under a private label to two different companies. The quantities required by them and the continued development of the Lulu Life brand should result in the projected sales. In addition, the organic and natural products market in the United States grows at 10 percent per year, a trend that will continue as consumers are become more health- and environmentally conscious and wish to be socially responsible in their purchases. Lulu Life products fit very well in this trend and meet consumers' expectations. The operating budget is based on historical costs and expected increases due to inflation and other factors.

Table 3. Projected Development Budget (Six Counties)

Year	2008	2009	2010	2011	2012
Total Develop Budget	371,000	324,000	320,000	248,000	269,000
Total Both Budgets	761,000	744,000	791,000	741,000	799,000
Net profit (loss)	(626,000)	(474,000)	(386,000)	(133,000)	21,000

B. MANAGEMENT SUSTAINABILITY

It is clear that Lulu Works will require management support in production, marketing and finance for the long term. MEDIC may begin its exit strategy by 2012, but it would be foolhardy to think that the company will survive without keeping or outsourcing critical expertise in financial management, production and marketing. This will be necessary for several years ahead, and MEDIC believes it wise that there be some continuity in staffing over the next few years. Sales should begin to cover part of these positions but it remains important that a special funding agency, e.g., a cooperative (or company) support service, partner with Lulu Works to assist in management and training support.[116]

[116] During the last eight years a total of six expatriates have worked full-time during all or part of this period. Taking the average compensation, it has been less than $1,000 per month per staff. Outsourcing or keeping these managerial positions filled will require something more to attract the expertise required.

C. STRUCTURAL SUSTAINABILITY

While the plan has been for Lulu Works to become a worker-owned and -managed company, MEDIC is well aware of the special conditions necessary for such a structure to be successful, and the absence of some of the essential components in the Sudan context. MEDIC chooses to search for a way forward to achieve both its equity and efficiency objectives, and will continue to search for a workable structural option that recognizes the primacy of local ownership and the conservation of the resource.

While the ultimate structure of the company may vary from an ideal worker-owned company, in 2008 MEDIC will issue a membership certificate or ownership share to each worker in Lulu Works (including the processors, formulators, marketers and administrators in Sudan and Kenya). This membership share will be accompanied by the owners' internal capital account that will track capital gains and losses over the years that the member works with Lulu Works. When a worker retires or leaves Lulu Works s/he is entitled to the accumulated value of the stock—the original membership fee plus accumulated earnings and interest on savings lent to their company as a source of internal finance. In a profitable worker-owned firm, a substantial part of net profits are distributed to the internal accounts, some to a central retained earnings account and a smaller portion to an education fund. While Lulu Works is not expected to turn a profit until around 2012, and therefore no net profits can be expected to be distributed for another five years, most of the workers do save a portion of their payment fees for processing, formulating and marketing. Many may choose to save in their own interest-bearing account. The expected impact of introducing the internal accounts will be i) to give tangible certification of ownership, ii) evidence that a share per worker-owner can grow through interest on savings lent to Lulu Works and paid from gross income, and iii) to show that when a profit is returned to the company, distribution of these profits will be made to owners' internal accounts. Indeed, this may be the only option to raise funds internally in the absence of external subsidies.

What the future holds depends on many unknowns at this point in time, not the least being the subsidy question. MEDIC's current reality is that donor subsidies for both the short- and long-term are not now available. Unless some short-term funds are received in the next six weeks, MEDIC will be taking a forced exit—closure of Nairobi and field offices and staff terminations, etc.—for an indeterminate period until additional funding is made available. This is an important reality for Lulu Works as a value chain case study. It addresses the timeframe and the multi-level interventions required in such compromised environments to build a successful business. In a very important sense MEDIC is too small an organization to compete with large NGOs: it has no core funding and no capacity to lobby effectively for support. What goes unnoticed, however, are the significant achievements made to date with such a small support structure, and the fact that after two external and two internal audits it was determined that MEDIC was in full compliance with USAID's accounting protocols. A more responsive subsidy arrangement is needed for organizations such as MEDIC that are attempting to build a sustainable business in compromised environments. In the event of a significant closure of activities, there still exists an inventory of lulu oil that could serve the expected market growth for about two years. This will allow the marketing department to remain engaged for some time, although a serious scaling back of production activities will be necessary with limited funding coming from internal sources.

The absence of funding might, because of Lulu Works' high and positive visibility, invite outside investors to take over the nascent lulu industry—and tap into international donor subsidies. It is unlikely that a takeover without subsidies would happen because of the high levels of risk associated with the industry. Two private investment groups have recently looked at Lulu Works as a possible investment outlet and, despite some admiration for the project, concluded that it has too high a risk profile to take such a plunge at this time.

Assuming the emergence of a more inviting and enabling business environment, other actors will most likely enter the lulu business, increasing competition. MEDIC has only tapped into a very small portion of the stand, and this will allow other actors to enter the industry without necessarily competing for access to the lulu trees which supply Lulu

Works. In the absence of additional partners in pursuit of Lulu Works' goals, other NGOs and/or private investors, or even government, could very well initiate their own lulu projects or enterprises in the myriad other lulu locations, or compete with Lulu Works in its operational areas. There may be different business structures, processing technologies, market segmentation or product differentiation, and therefore increased consumer choice. Such a competitive environment is sure to grow, and Lulu Works' continued success would be predicated on maintaining its reputation for quality product and good management and marketing. Lulu Works will continue to contract with service providers—e.g., transporters, clearing agents, bulk buyers, retailers, etc. from gross earnings—and must be prepared to share in the value-adding chain with competitors, service providers and government through taxation.

D. POLITICAL SUSTAINABILITY

The absence of codified laws on land ownership, the escalation in South-South conflict, the infrastructural constraints, the absence of support services, and the generally unsupportive business enabling environment form part of the risk profile for investments in the South Sudan.

However, MEDIC still has good reason to expect Lulu Works to be able to operate under a number of conditions:

1. While much effort is being invested to pass legislation for community ownership of natural resources, delays are part of the larger problem of the GOSS' current inability to govern effectively at most levels. Short of a total reversal of support that Lulu Works is currently receiving from the GOSS, it is unlikely that intended spoilers would undermine the company. MEDIC doubts that Lulu Works would lose out to other actors, except for those that are more competitive—a situation that could occur in any business environment. In the event of unfair play MEDIC expects a galvanized women's lobby to resist spoilers.

2. While conflict between the North and South could very well erupt again, this would more likely happen in the North-South border areas. It is unlikely that the towns of Juba and Wau will be conflict zones due to the fact that the SPLA is militarily strong and controls the airports. It is also unlikely that indiscriminate bombing by the North, as happened during the war, will happen again. The SPLA receives substantial military assistance and will surely have the capacity to counter aerial bombings. Also, the lulu forest stretches along a well-protected corridor far from the potential flash points to the north, and extends to the border with Uganda, and the exit points for lulu destined for Kenya and the international markets. One worrying feature of future conflict, and a more likely scenario, is that dissident militia groups may become a direct threat to lulu operations, but operations will very likely continue since processing locations are spread over such a vast landscape.

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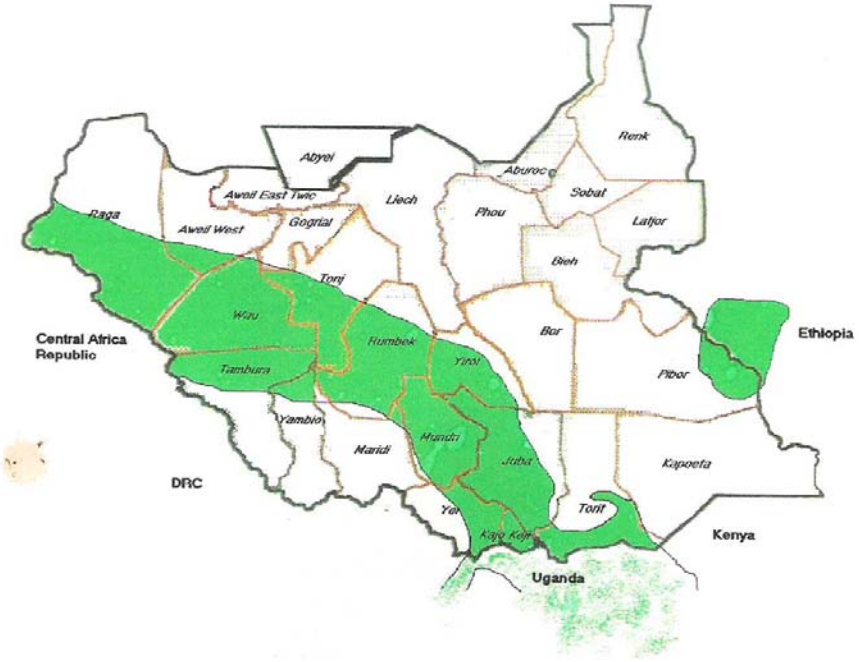
ANNEX 1. EXTENT OF SHEA STAND IN AFRICA

ANNEX 2. LULU AREAS OF NEW SUDAN



ANNEX 3. LULU ASSESSMENT REPORT FROM WULU AND MAPEL

March 10 to April 12, 2000

RUMBEK and WAU COUNTIES, BAHR EL GHAZAL REGION

NEW SUDAN

Kristina Belknap
Gordon Wagner
MEDIC
23 May, 2000

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THE USE OF TERMS

1. The Arabic rendition of Shea is Lulu and this term will be used throughout this report to designate the Shea-butter tree Vitellaria paradoxa ssp. nilotica (Butryospermum paradoxum ssp. niloticum). Though each ethnic language has its own word for the shea tree, Lulu is the most commonly used and understood term by most people in the Sudan. The Bele of Wulu call the Lulu tree Kitto; the Lulu oil, Hubu Kitto. The Dinka call Lulu oil Raak. The Luo of Mapel call the Lulu tree Yoow and Lulu oil, Moon Yoow.

2. The designation of Jur will be dropped when referring to the Bele of Wulu and the Luo of Mapel, in accordance with the decision taken at the BYDA Workshop on Civic Education.

1 EXECUTIVE SUMMARY: FINDINGS

1.1 LULU: A MAJOR SOURCE OF LIFE

a) In traditional lore and modern practice, the Lulu tree is deeply revered amongst the people of Wulu and Mapel. Lulu oil for the Bele and Luo has, for generations, been a major source of life for the healthy reproduction of their communities.

b) This abundant gift of nature yields its bounty during the first rains - the 'hunger' period - when food stocks are lowest, and labor demands for cultivation are highest. Because both activities overlap in time, and both are labor-using intensive activities, every household, at this time, must calculate its own relative opportunity costs of family labor to determine its allocation between the two activities.

c) Lulu oil is the major source of energy (from among other indigenous foods) to bridge the annual 'hunger' gap and provide the calories to facilitate cultivation. Lulu oil is also by far the most important cooking oil by quantity consumed and by preference from among the alternatives consumed throughout the year.

d) Furthermore, from two-thirds to three-quarters of all processed Lulu oil is consumed at home. The remainder is sold in the market, and is the highest source of income from among other income-generating activities.

1.2 WOMEN

a) It is said that "if a women has no daughters, she cannot make Lulu oil". Of the eight Lulu-related activities performed by women (collection, cracking, sorting, drying, storing, processing, cooking and marketing), processing Lulu oil is the most labor-intensive.

b) It can take 4-6 women working a full day to process 4 liters of Lulu oil from 20 liters of nuts. This quantity is sufficient for 1-3 weeks of consumption (depending on family size and availability of other oils) and, on average, is approximately equal to the stable life of the oil. To maintain this rate of consumption, it takes approximately 130 woman work days per year (for a family of 5 women) engaged only in processing Lulu oil – for home consumption and for sale in the market.

1.3 LULU: STORAGE EFFICIENCY

a) In reflection of Lulu's role as a significant part of the communities' food basket throughout the year, a highly efficient system of sorting, drying and storing the Lulu nuts has been developed over many generations. Several households visited had Lulu nuts stored from 2 years back; a few households had nuts stored for 4 years.

b) While the women were familiar with the instructions detailed in COVOL's improved storage brochure, the most significant role of these 'new' storage guidelines is to reinforce and confirm the efficacy of traditional storage methods.

1.4 LULU: UNDERUTILIZED HARVESTS

a) Most of the Lulu nuts are collected from trees on the family's homestead, or from the near-by 'commons'. However, a greater part of any normal Lulu harvest goes uncollected/unused. Large ubiquitous stands are located up to 3 days walking distance in, mostly, uninhabited areas.

b) Only in times of severe food shortages do the people harvest Lulu from some of these more distant locations, with the costs of collection directly a function of distance. While the 'commons' are open to all on a first-come/first-serve basis, tension and fighting sometimes occurs on those nearest the homesteads, as families compete, during hard times, for Lulu at these lower cost collection points.

1.5 LULU: EXISTING MARKETS

a) Twenty-five to 30 percent of the Lulu collected is sold in the local markets in one product form or another. While some fresh fruit, dried nuts, and the roughly pounded powder are at times available, the processed Lulu oil is the most common, and is the best income-earner from among the different product forms. The choice to process and sell the oil notably reflects the larger number of women in the household.

b) Furthermore 1) the returns to Lulu oil are also the highest from among other income-generating products, e.g. suku (local gin), sesame and groundnut oil, honey, sweet potatoes, vegetables, etc, and 2) Lulu oil consistently enjoys a competitive price advantage over other types of cooking oil sold in the market - sesame, groundnut, imports (East Africa), relief oil such as rapeseed. Similar price differentials favoring Lulu oil exist in other larger markets such as Rumbek, Maridi, and Yei. Reports from the large cattle market at Wara Wara in East Aweil suggest even larger price differentials between Lulu oil and imports from northern Sudan.

c) Lulu oil is also beginning to be demanded by soap producers, e.g. Tear Fund/Rumbek, Radda Barna/Akot.

1.6 LULU: OTHER USES

a) In addition to its nutritional benefits as a food oil, Lulu oil has a wide variety of therapeutic and curative properties. As a body oil it is known to restore skin and hair luster and health, assists in drawing away the body heat of malaria, and is effective against arthritis. The soft inner bark of the tree is chewed as a malaria medicine, and when boiled in water used as a cough medicine, and for stomach problems.

b) The cake-like residue from processing the oil is used as a termite deterrent on building foundations and post-holes. It is often burned to ash to form a 'kombo' - a salt-like seasoning for leaves and stews.

1.7 LULU: LOCAL CONSERVATION

a) Because of the critical role of Lulu in the life of the community, there is a strong prohibition against felling the tree. For example in Mapel it was reported that the penalty for cutting a tree is either payment of a bull, or 6 months in prison. However, given the large variety and quantities of other tree species used for charcoal and building materials in Mapel, these disciplinary measure are not commonly resorted to. In Rumbek, in fact, it was reported that Lulu wood is highly prized as a superior building material.

b) The most serious threat to the productivity and regeneration of the Lulu tree are the bush fires which ravage large sections of Lulu stands each year during the dry season - just at the time of flowering.

c) The mistletoe parasite also does much damage to the Lulu tree, and except for the periodic picking of the parasite from the low branches – which is burned into ash, and used also as a 'kombo' for seasoning food - it was the general feeling that little attention has been paid to it, given the abundance of Lulu, and the high labor costs of controlling the parasite.

d) Wild animals and insects were also reported as another source of damage to/consumption of Lulu.

1.8 LULU: CHANGING ATTITUDES DUE TO WAR

a) In the past people took comfort in the fact that the land yielded a wide variety of indigenous (and wild) food plants – Lulu being most important – which would substitute for a poor/failed harvest of cultivated crops. People then took all of this for granted.

b) But their perceptions are now changing. This was highly dramatized during the 1998 famine. The great loss of life during that crisis would have been much lower had there not been such a poor Lulu harvest that year, due to the poor rains of 1997. People are now becoming more aware of the importance and economic value of Lulu and

other indigenous foods, and the role they should play in preparation for such untoward crises, and achieving increased food security.

II EXECUTIVE SUMMARY: CONCLUSIONS

2.1 LULU: LOCAL MARKET DEVELOPMENT

a) There is great potential in expanding Lulu oil production for local markets – as a food and body oil, and for soap. The supply of Lulu oil can be increased by modest capital investments in: 1) transport for collection of nuts from distant locations, and processed oil to the market, e.g., bicycles and 2) improved processing of Lulu oil, e.g. the COVOL technology package (grinders and hand presses).

b) The current and relatively lower market price for Lulu oil would seem to allow for additional capital costs amortized over their useful life, while still maintaining a competitive edge in the market.

c) People could also more easily afford – and many prefer - Lulu sold as a body oil, compared to expensive imports (which have a limited income constrained market).

d) Similarly by preference, the demand for Lulu soap exceeds that which currently is being produced.

2.2 LULU: THE STEWARDSHIP OF WOMEN EXPANDED

a) The stewardship of Lulu by the women was strongly affirmed in both communities. With this in mind, there was a strong interest in the formation of women's groups/cooperatives with membership possibly drawn from existing groups. But caution was expressed, that care should be taken to ensure that the most marginalized of women be actively incorporated into any new initiatives.

b) There was keen interest expressed for the idea of the formation of a NELPA (New Sudan Lulu Processing Association), where women's groups would be organized to collect, dry, store, and further process Lulu nuts from the 'commons'.

c) Also, interest in the idea that in Wulu and Mapel 2 pilot processing, privately owned cooperatives be organized to purchase and process Lulu oil. Other groups will follow as markets are established, and following technical and organizational training from COVOL and MEDIC. Such training should also include adult literacy as well as simple management and accounting techniques.

2.3 LULU: RELATED ISSUES FOR CONSIDERATION

a) Mapping exercises to estimate the potential of extant Lulu stands should be conducted.

b) The cultural principles which determine access to water holes and the *toich* may be a first approach to consider for guiding the resolution of fair access to the Lulu 'commons'; the traditional (and current) first-come/first-serve practice may be inadequate in the future.

c) Lulu stands are extensive throughout much of the New Sudan. Other organizations are also becoming involved in Lulu activities. For example, CRS in Rumbek, NPA in Akot, BYDA/Concern in Yirol, Christian Aid In Kajo Kaji. Most have connected with COVOL Uganda to receive training in improved processing and storage. It is recommended that all such initiatives come together to share information and develop a coordinated, regional implementation.

III ASSESSMENT FINDINGS ELABORATED

3.1 PURPOSE OF ASSESSMENT

Following approval by the SRRA, an Assessment of Lulu activity in New Sudan was carried out between 10 March and 12 April in Wulu Payam of Rumbek County, and Quajena Payam of Wau County, Bahr el Ghazal Region. The objectives of the Assessment were: 1) to understand the current and traditional socio-economic and cultural practices of Lulu activity 2) to introduce to the communities an improved drying and storage technique which would increase the quantity and quality of Lulu-oil 3) to assess the local and regional market options for Lulu-oil products. The semi-structured interview guide was very helpful in steering discussions, but it was the spontaneity of individuals and groups encountered, particularly in their homesteads which gave a life of its own in providing the information and analysis of this assessment. (see Appendix I for Assessment Paper).

The participants in the assessment included (approximately) 40 households. Also, discussions were held with the SRRA, County, and Payam officials who provided direction, information and support. Discussions were also held with women's groups, the churches, and NGOs. Time spent in discussions about Lulu was approximately 70 percent with women, and 30 percent with men. It was a fortunate coincidence that the Bahr el Ghazal Youth Association (BYDA) was conducting a workshop on Civic Education in Wulu, at the same time of the assessment. Many of the workshop participants, besides being members of BYDA, are also local officials, representatives of women's groups, or otherwise representing their areas and interest groups from all over the Region. Besides the direct support given by many members in their official roles, interaction with this group provided a clearer and wider perspective on a number of issues relating to that of Lulu throughout the region. This larger spatial view also was partly facilitated by the fact that most of the time of the assessment period was on the road to, from, and between Wulu and Mapel. This gave the time and space to get a sense of the larger picture in Rumbek, Akot, Yirol and the Mundri areas.

While caution in interpretation is necessary given the limited sample of respondents, and while many other questions and issues require further study, the findings and conclusions do affirmatively support an expanded role for Lulu as part of a food security strategy in the New Sudan, particularly through women's organizations.

3.2 LULU: A SOURCE OF LIFE

In belief and practice much reverence is shown for the Lulu tree by the Bele of Wulu, and the Luo of Mapel. For generations they have known of the nutritional and healing properties of Lulu, as a cooking and a body oil, and as a medicine. The Dinka of Wulu also esteem Lulu. In the past they used Lulu as a body oil and as medicine, and more recently they have begun to use it as a food oil - as the Bele and Luo have for many generations. Some say amongst the Bele and Luo, that next to water, Lulu oil is the major source of life for a healthy reproduction of their communities. The Lulu tree begins to yield its bounty just as the rains begin in April/May, with the harvest continuing until the end of the heavy rains in July. This is also the annual 'hunger' period when stocks of cultivated food are at their lowest. It is also the time for the land to be prepared and cultivated. Lulu oil is the most important source of energy (from among other indigenous foods) to bridge the hunger gap and to empower the cultivators nutritionally. Finding the critical balance of family labor allocated between Lulu activity (collection, drying, storing and processing) and that of cultivation – calculating the high opportunity costs of such labor intensive activities - is faced each year by every community. This decision depends upon a number of variables: the number of women in the household, existing stocks of food, expected Lulu harvest, rain and crop forecasts.

3.3 LULU: THE WORK OF WOMEN

Women continue to be the custodians of Lulu activity in the household. Therefore it is said that "if a woman has no daughters, then she cannot make Lulu oil". Each year, on average, from 2/3 to 3/4 of the traditionally home-

processed Lulu oil is consumed by the household. The rest is sold in the local market, or otherwise consumed for special occasions. The work cycle of Lulu begins when the fruit falls from the trees during the early rains. There are eight separate Lulu activities which occupy the time of the women throughout the year:

1) **Collection** is assigned mostly to the children who collect (and eat much of) the fallen fresh fruit. Some of the fruit is pulped and dried, and later dipped in the fresh oil and served to the children as a snack.

2) **Cracking** the unshelled nuts is done by first setting them out to dry in the sun for about 3 days, when they are easily cracked by hand and winnowed.

3) **Separation** of the good from the bad nuts is done to avoid spoilage and to ensure long-term storage. Those which are cracked, infested with insects or fungus, or germinating are removed first. The germinating nuts are often ground into a bitter paste and eaten mixed with groundnut butter. The other inferior nuts are the first to be processed into Lulu oil for immediate consumption.

4) **Drying** and 5) **Storage:** of the shelled nuts are the other key factors in the year-long consumption of Lulu oil. It is because of the storage system that Lulu can serve such a large portion of the households' oil requirements, as well as be found in the market, throughout the year. The family management of stores – for home consumption and sale in the market – also cushions the annual market price variation of Lulu oil. The shelled nuts are allowed to dry in the sun for several more days, but the moisture-laden air during this period makes for incomplete drying, and is a serious threat to long-term storage. For this reason the nuts are then placed in woven baskets on a raised platform *sedab* inside a grass-thatched kitchen, with a smoky-fire underneath to complete and maintain the drying process, and as protection against insects and rodents. The woven baskets are made from dura fiber, grass, bamboo, and palm in capacities from 5 to 80 liters. These baskets, which stretch upon filling, are best for maintaining an even flow of air over the nuts for optimum maintenance of drying. The men from the Dinka, Bele, Luo, and Balanda communities make the bamboo and palm baskets; the women make the dura fiber, and the grass (from swampy areas) baskets.. Storage of nuts from 2-4 years was seen during the assessment. Note should be made, however, that in locations nearby relief centers some polybags – damaging for Lulu storage – were being used.

6) **Processing** the oil is the most labor-intensive of all Lulu activities. A full day is normally set aside - free from other work - by the women in the household. The nuts are first pounded roughly; then roasted until dark brown/black; then further pounded and/or ground into a groundnut-like paste; the paste is then mixed with an equal amount of water and boiled; the oil is then skimmed off and held in a separate container. It can take 4-6 women working the full day to produce 4 liters of lulu oil from 20 liters of nuts. This quantity can last a family for 1 to 3 weeks depending on the family size and the availability of other oil. The stabsle life of traditionally-processed Lulu oil is about 3 weeks as well. For a family of 5 women which processes 4 liters of oil every 2 weeks, this means that 130 woman work days per year are required. Using the COVOL technology package, 4 liters of Lulu oil can be processed in ½ hour, or about 40 liters in a single day.

7) **Cooking** with Lulu oil is preferred by the Wulu and Mapel communities. It is mixed with groundnut paste when available and then cooked with vegetables and meat. This will be particularly the case this year as the rains were inconsistent in 1999 leading to a low harvest of groundnuts and sesame.

8) **Marketing** of Lulu is done in its various product forms. Though incomes earned are highest from selling the oil, at times the nuts, pounded powder and the freshly fallen fruit can be found in the market. The lulu nuts are sold – in large pint-sized piles - mostly when the harvest has been plentiful, and probably by families which have fewer women in the households. They are sold for cash or traded for oil or soap.

3.4 THE 'COMMONS': AN UNTAPPED SUPPLY

a) The supply potential of Lulu oil is considerably greater than current production. This additional supply exists on the 'commons' – mostly uninhabited areas with large Lulu stands, which can take up to 3 days by foot to reach. While wisdom dictates that households continue to harvest from their own homesteads for their own consumption requirements, the source of Lulu nuts for expanded production could come from the 'commons,' which now mostly go unharvested.

b) The major constraint for accessing this supply, however, is the collection cost associated with the long distances to travel. This cost could be reduced significantly if bicycles were made available to women's groups, which in turn could assign members of the family less engaged than the women to collect this untapped supply.

c) While, currently, the 'commons' are open to all on a first-come/first serve-basis, some tension and even some fighting was reported to occur during times of food shortages - on the 'commons' nearest to population settlements. Facilitating access with bicycles to the more distant 'commons' would help to reduce this competition. Additionally, if this potential supply is to be tapped, then it will make sense for the communities to address the issue of fairness of access to the 'commons'. A first-approach to consider may be to apply a similar fairness modality as practiced for accessing water and the *toich*.

3.5 LULU: MARKETS AND MARKET DEVELOPMENT

a) Rural households reported that from 65 to75 percent of all Lulu collected and processed goes to home consumption. The remainder is sold in the local markets in its various product forms – oil, nuts, grounded powder, fresh fruit. The processed oil captures the highest income from among these product forms, reflecting mostly the number of women in the household.

b) Lulu oil is sold alongside that of the local sesame and groundnut oil, as well as imported oil from East Africa, and relief oil (when available). Prices vary according to seasonal availability, the relative cost of producing local oils, as well as the irregular supply and transport costs of imports. Sesame, because of its limited oil content and equally intensive labor process, is preferred for local beer. Groundnuts, similarly, have alternative uses as a paste and therefore is found in limited quantities on the market as a cooking oil.

c) During the last year the price variations in the market for the standard ('gizaza') oil measure of 750 ml consistently gave Lulu oil a competitive edge against other cooking oils. For example in Wulu in 1999-00 the price range was for:

Lulu Oil:	Ls 100 to Ls 500
Sesame Oil:	Ls 400 to Ls 500
Groundnut Oil:	Ls 400 to Ls 600
East African Oil:	Ls 500 to Ls 800
Relief Oil, e.g. rapeseed:	Ls 400 to Ls 1000

d) In Mapel, sesame oil sold for 2 to 2 ½ times higher than Lulu, while relief and commercial imports are one-half again, to twice as high as Lulu. While Lulu oil also enjoys a strong consumer preference from amongst the alternatives available, it still sells at a lower price. These price differences are essentially the same in other markets in western Equatoria and Bahr el Ghazal, e.g. Rumbek, Maridi and Yei. Information from SPLM authorities about the prices in the northern Bahr el Ghazal market at Wara Wara, e.g. soap coming from the northern Sudan sells for several times the price found in places like Rumbek, suggest the possibility that cooking oil prices are likely to be significantly higher as well. A visit to Wara Wara would be useful to assess comparative prices. What all these price differentials suggest, however, is the possibility of developing an increased market for Lulu oil in the many larger markets in the new Sudan.

e) Of all income earning activities, Lulu oil is the best in both Wulu and Mapel, followed by suku (the local gin), sesame , groundnuts, and sweet potatoes.

3.6 LULU: LOCAL CONSERVATION

a) Cutting a Lulu tree is considered a serious infraction against the community. In Mapel it was noted by the Commissioner of the County that an offender would be given either a 6 months prison term, or a fine of 1 bull, but he acknowledged that enforcement of these rules was not currently common.

b) Fire is the most serious problem affecting the productivity and regeneration of the Lulu tree. The grass is usually burned late when it is extremely dry, making for uncontrolled fires which do much damage to the Lulu stands every year. Several people discussed the need for controlled burning of the grass earlier in the season when the grass is not so dry, and at night when there is little wind, allowing for more control. Also, the idea of fire lines has been discussed in the community as a possible conservation measure. But here again the high opportunity cost of labor is the major constraint.

c) The mistletoe parasite is also a common problem. Except for periodic pickings from low branches (which are also burned to ash and used as a 'kombo'), the high cost of labor to control the parasite makes it difficult to do much about it.

d) Animals (mostly rodents) and insects were also reported to damage/consume Lulu nuts

3.7 LULU: CHANGING ATTITUDES

Times have changed, however. The affects of war on the cultural value of the Lulu tree was highly dramatized by what happened in 1998. The drought and the war of that year resulted in a serious famine and loss of life. The view from Mapel was that such losses would have been significantly lower had there not been a poor Lulu harvest that year - caused by the poor rains of 1997. There was not sufficient food to feed the large displacement of people from Wau during the Keribino episode, and food assistance was late in arriving from WFP Southern sector. This caused many to risk the return to Wau where they thought food would be available.

Commissioner Effisio emphasized that the people were now more aware than ever of the importance of being prepared for such more common tragedies. They are beginning to realize that the high nutritional value of native plants have also significant economic value. The *jellaba* (northern merchant) very seldom bothered to exploit these indigenous plants, but focused mainly on the highly valuable (and extractive) teak and mahogany stands. Today, people are more aware of their rich natural resource endowments, and the importance of factoring them into their short and long-term development plans. This awareness is also coming as a result of official SPLM policy.

3.8 LULU: TYPES OF TREES RECOGNIZED

While a full range of varieties and types of Lulu trees within the sub-species *nilotica* is likely, there were two general distinctions made by the community:

1. Large Fruit: called 'Ndabo' in Bele

    - more fruit/flesh
    - less oil in the nut
    - ripens in April/May – end of dry season. Called 'lulu of March'.

2. Small Fruit: called 'Matabenye' in Bele

    - small fruit/less flesh

- more oil in nut
- ripens in June/July after the rains have begun

3.9 WOMEN'S GROUPS AND ACTIVITIES

a) In Wulu Payam there are 5 women's groups, one from each of the 5 Center Villages/areas. They appear not to be well organized at the moment and there are no significant activities to speak of. However, they possibly represent the basis for organization into Lulu groups in the future.

b) In Mapel (Wau county) there are 4 women's groups: 1) Women Affairs under the SRRA 2) Women Federation, an umbrella group, which has recently been trained in Nairobi to provide para-legal services for rural women (something which needs great sensitivity in application), and adult education courses 3) Women's Voice for Peace is involved in tailoring 4) Women Association, a group organized by SCF/UK has been engaged in soap-making and tailoring of school uniforms.

c) For future organization of women cooperatives engaged in Lulu processing, care should be exercised to draw members from each of the groups, as well as to incorporate from the beginning representatives of the worst-off women in the communities. These cooperatives should have structural independence from the larger groups.

3.10 LULU LORE

Three lulu stories (lore) told around fires to the children and adults as related during the assessment:

1. Bele tradition as told by Mary Atong: A long time ago during the time of our grandfathers a man had a single Lulu nut. He placed this seed in a tall gourd. When he returned the next morning he found the gourd filled with Lulu oil. The same man married another woman, and again dropped a seed into a gourd. And again, he found the gourd filled with Lulu oil. This was the way, amongst our people that Lulu oil was first produced without grinding and pounding. *(reminiscent of the biblical Garden of Eden story where the lunch was free and always available to all, sufficient for family needs)*

2. Bele tradition as told by Usabetha Wol: Many generations ago our food was provided automatically. Our people did nothing but to collect this free bounty. At that time there was a woman who went to collect food for the family. Her co-wife, a younger woman was left at home. While the senior wife was away, her sister-wife carried one Lulu seed to the place where ash and garbage was dumped. The younger woman decided to grind and pound the Lulu seed which resulted in a container of oil. The older woman returned to say "you have made a big mistake, why have you done this?" The same happened the next day, and again the senior wife said it was a big mistake. Since that time most of the food appearing prepared for people to eat was finished; since then people have had to cultivate and prepare the food they eat. *(reminiscent of the expulsion from the Garden where the lunch continued to be free but work they must)*

3. Jang tradition in the Yirol area as told by Deborah Bannaha: The Jang area of northern Yirol is a place where today there are no Lulu trees or forests. Many years ago during the time of our great great grandfathers the provision and preparation of food was a job completed successfully only by those with great strength and power. Lulu oil, as all food, was harvested and prepared by people with this power and strength. But it happened that those people with this power did not help others in obtaining food. As a result our area received huge torrential rainstorms which flooded and washed away the Lulu trees and seeds. Since that time we no longer had Lulu in the Jang area. *(reminiscent of many biblical stories about the natural consequences of seeking for power and riches)*

ANNEX 4. SWAHILI IMPORTS WEBSITE

FIGURE 1: LULU LIFE PRODUCTS FOR THE U.S. MARKET

FIGURE 2: REPACKAGING LULU LIFE PRODUCTS FOR THE U.S. MARKET

ANNEX 5. DIRECT COST OF PRODUCT FORMULATED AND PACKAGED IN KENYA

Soap - Bath Bars	per liter
LULU nuts	**$1.00**
County tax	$0.10
Processing consumables per litre	$0.02
Depreciation on processing equipment	$0.10
LULU processing fee	**$3.00**
Export/Import tax	$0.60
Transport to Kenya	$2.00
Formulation Ingredients	$0.98
Packaging	$0.89
Formulating fee	**$5.00**
$ Cost per litre	**$13.69**
$ Cost per bar @ 17 bars per litre	**$0.81**
% Return to Industry Actors	**66%**

Body Butter	Per liter
LULU nuts	**$1.25**
County tax	$0.13
Processing consumables per litre	$0.02
Depreciation on processing equipment	$0.10
LULU processing fee	**$5.00**
Export/Import tax	$0.60
Transport to Kenya	$2.00
Formulation Ingredients	$0.25
Packaging	$1.60
Formulating fee	**$5.00**
$ Cost per litre	**$15.94**
$ Cost per 100ml retail container	**$1.59**
% Return to Industry Actors	**71%**

Lip Balm	Per liter
LULU nuts	**$1.25**
County tax	$0.13
Processing consumables per litre	$0.02
Depreciation on processing equipment	$0.10
LULU processing fee	**$5.00**
Export/Import tax	$0.60
Transport to Kenya	$2.00
Formulation Ingredients	$1.31
Packaging	$6.39
Formulating fee	**$7.12**
$ Cost per litre	**$23.92**
$ Cost per 13ml retail container	**$0.31**
% Return to Industry Actors	**56%**

Body Scrub	per liter
LULU nuts	**$1.25**
County tax	$0.13
Processing consumables per litre	$0.02
Depreciation on processing equipment	$0.10
LULU processing fee	**$5.00**
Export/Import tax	$0.60
Transport to Kenya	$2.00
Formulation Ingredients	$6.22
Packaging	$5.92
Formulating fee	**$5.00**
$ Cost per litre	**$26.24**
$ Cost per 220ml retail container	**$1.31**
% Return to Industry Actors	**43%**

ANNEX 6. LULU LIFE RETAIL PRODUCTS

Gift Tube **Sugar Scrub** **Gift Tube**

Body Butter **Body Butter**

Bath Soap

Lip Balm **Lip Balm**

ANNEX 7. DIRECT COST OF PRODUCT FORMULATED AND PACKAGED IN SUDAN

	Direct Costs
Relief Oil	**per litre**
LULU nuts	**$1.15**
County tax	$0.12
Processing consumables per litre	$0.23
5L Container + ship	$0.08
Depreciation	$0.10
LULU processing fee	**$3.00**
Formulating fee (NA)	$0.00
Transport (FOB LW County Offices)	$0.07
$ Cost per litre	**$4.75**
% Return to Industry Actors	**87%**

Cooking Oil	**per litre**
LULU nuts	**$1.15**
County tax	$0.12
Processing consumables per litre	$0.23
300ml container/labels + ship	$0.11
Depreciation	$0.10
LULU processing fee	**$3.00**
Formulating fee (NA)	$0.00
Transport to market	$1.00
$ Cost per Litre	**$5.70**
% Return to Industry Actors	**73%**

Soap - Long Bars	**per litre**
LULU nuts	**$1.00**
County tax	$0.10
Processing consumables per litre	$0.02
Caustic Soda + Palm Oil	$1.81
Box for 20	$0.02
Depreciation	$0.10
LULU processing fee	**$3.00**
Formulating fee (NA)	$0.00
Transport to market	$1.00
$ Cost per litre	**$7.05**
$ Cost per bar @ 2.6 bar per litre	**$2.71**
% Return to Industry Actors	**57%**

Soap - Bath Bars	per litre
LULU nuts	**$1.00**
County tax	$0.10
Processing consumables per litre	$0.02
Caustic Soda + Coconut Oil	$2.83
Box for 60	$1.99
Depreciation	$0.10
LULU processing fee	**$3.00**
Formulating fee	**$0.50**
Transport to market	$1.00
$ Cost per litre	**$10.54**
$ Cost per bar @ 34 bars per litre	**$0.31**
% Return to Industry Actors	**43%**

Body Butter	per litre
LULU nuts	**$1.25**
County tax	$0.13
Processing consumables per litre	$0.02
Perfumes	$0.25
Depreciation	$0.10
LULU processing fee	**$5.00**
Retail Packaging	$2.07
Formulating fee	**$3.00**
Transport to market	$1.00
$ Cost per litre	**$12.82**
$ Cost per 100ml retail container	**$1.28**
% Return to Industry Actors	**72%**

ANNEX 8. SOUTH SUDAN RURAL MARKET PRODUCT ASSESSMENT

South Sudan Rural Market Product Assessment: Juba						
			US$ 1	2.05		
Name	Type	Quantity	Sud Pd Amt	US$ Amt	per 50g	per 100g
		Creams				
Local Market Stalls						
	UK-papaya/aloe vera cream	325ml	7	$3.41		
	Clere Uganda	250g	7	$3.41		
	Baby	250g	6	$2.93		
Customs Market	skin lightener Maxi Claire		25	$12.20		
Jit Supermarket	Lux soufle body lotion	200ml		$5.00		
	Atrix handcream	150ml		$4.30		
	Pamir aloe	150g		$2.50		
	Uk body/face Beaty formula	150ml		$7.00		
	Uk body/face Beaty formula	75ml		$6.20		
	for cracjked skin					
	Uk body/face Beaty formula	100ml		$7.60		
	Shirley medicated cream	12 pcs		$13.50		
	Dove deep face moisterizer	50ml		$18.00		
	Nivea Vit.C int. youth cream			$24.00		
Petroleum Jelly						
Local Market Stalls	Jackie Uganda		7	$3.41		
		Soap				
Jit Supermarket	Uganda bar soap	1 bar		$1.00		
	Lux Kenya			$1.40		
	Geisha Kenya			$1.00		

South Sudan Urban Market Product Assessment: Rumbek						
Creams			US$ 1	2.05		
Name	Type	Quantity	Sud Pd Amt	US$ Amt	per 50g	per 100g
Bright Star Enterprises						
Samona, Uganda	Jelly	100	5	$2.44	$1.22	$2.44
Desire, Uganda	Cream with Olive oil	100	8	$3.90	$1.95	$3.90
Revlon Profesional Lotion	Spain	600	25	$12.20	$1.02	$2.03
Big Love, Uganda	Lemon Lotion	300	10	$4.88	$0.81	$1.63
Movit, Uganda	Cream	250	10	$4.88	$0.98	$1.95
Tridia, Uganda	White Musk	250	10	$4.88	$0.98	$1.95
Top Society, Uganda	Lotion	200	8	$3.90	$0.98	$1.95

Movit, Uganda	Lotion	270	10	$4.88	$0.90	$1.81
Clere, Uganda	Lotion	200	8	$3.90	$0.98	$1.95
Soap						
Bright Star Enterprises						
Protex	Kenya	100	3	$1.46	$0.73	$1.46
Detol	Kenya	100	3	$1.46	$0.73	$1.46
Life Buoy	Kenya	150	3	$1.46	$0.49	$0.98
Geisha, Uganda	Bath soap	125	2	$0.98	$0.39	$0.78
Roberts, Kenya	Bath soap	100	3	$1.46	$0.73	$1.46

South Sudan Rural Market Product Assessment: KajoKeji						
Creams			**US$ 1**	**1660**		
Name	**Type**	**Quantity**	**Ug Amt**	**US$ Amt**	**per 50g**	**per 100g**
in Koboko, Uganda						
MOVIT	Lemon Cream	50g	500	$0.30	$0.30	$0.60
in Kajo Kaji, Wudu Centre						
LaBelle	glycerine/stearic	300g	2000	$1.20	$0.20	$0.40
British Herbal	"no oil"	100g	1500	$0.90	$0.45	$0.90
in Mondikolok, NPA Coop Shop						
LaBelle	glycerine/stearic	300g	2000	$1.20	$0.20	$0.40
MOVIT	Lemon Cream	200g	1500	$0.90	$0.23	$0.45
Clere Body Creme	from south Africa	125g	1200	$0.72	$0.29	$0.58
Petroleum Jelly						
in Koboko, Uganda						
Samona	Uganda	90g	1000	$0.60	$0.33	$0.67
La Belle	Uganda	250g	2000	$1.20	$0.24	$0.48
in Kajo Kaji, Wudu Centre						
Samona	Uganda	100g	1500	$0.90	$0.45	$0.90
MOVIT	Uganda	250g	2000	$1.20	$0.24	$0.48
Julie	Uganda	250g	2000	$1.20	$0.24	$0.48
Soap						
in Koboko, Uganda						
MOVIT	uganda	120g	1500	$0.90	$0.38	
Samona	uganda	90g	1000	$0.60	$0.33	
Johnson Baby	import	100g	1000	$0.60	$0.30	
in Kajo Kaji, Wudu Centre						
MOVIT	honey. Neem aloe	55g	1000	$0.60	$0.55	
Samona	medicated, herbal	90g	1500	$0.90	$0.50	

ANNEX 9. NORTH SUDAN RURAL MARKET PRODUCT ASSESSMENT

North Sudan Urban Market Product Assessment: Khartoum						
Name	**Type**	**Quantity**	**Sud Pd Amt**	**US$ Amt**	**per 50g**	**per 100g**
Creams			**US$1**	**1.95**		
Khartoum, Sudan – AFRA Supermarket						
Queen Helen, NY, USA	Mango – Cocoa Butter	425	22	$11.28	$1.33	$2.65
Queen Helen, NY, USA	Mango – Cocoa Butter	944	28	$14.36	$0.76	$1.51
Queen Helen, NY, USA	Cocoa Butter Cream	136	11	$5.64	$2.49	$4.97
Ultimate Organics, Georgia, USA	Coconut-Shea Butter	227	15	$7.69	$1.69	$3.39
Ultimate Organics, Georgia, USA	Hair Mayonaise	511	23	$11.79	$1.15	$2.31
Ultimate Organics, Georgia, USA	Shea Butter Hair Lotion	355	20	$10.26	$1.44	$2.89
Jergens, UAE	Musk Cream	170	15	$7.69	$2.26	$4.52
Dove, UAE	Body Silk	150	10	$5.13	$1.71	$3.42
Khartoum, Sudan, Al Hawi Chemists						
Red Fox, majesticdrug.com	Cocoa Butter	287	15	$7.69	$1.34	$2.68
Petroleum Jelly						
Khartoum, Sudan – AFRA Supermarket						
Vaseline	Jergens	50	5	$2.56	$2.56	$5.13
Vaseline	Jergens	425	10	$5.13	$0.60	$1.21
Soap						
Khartoum, Sudan – AFRA Supermarket						
Bee Flower	China	125	3	$1.54	$0.62	$1.23
Palm Olive Natural	Sudan	175	2.6	$1.33	$0.38	$0.76
Palm Olive Natural	Sudan	120	2	$1.03	$0.43	$0.85
Lux	Brazil	125	2.3	$1.18	$0.47	$0.94
Elora	Sudan	90	0.9	$0.46	$0.83	$1.66
Black Seed and Honey	Syria	100	4.6	$2.36	$1.18	$2.36

ANNEX 10. PROCESSING TECHNIQUE FOR LULU OIL

By LULU WORKS Groups
Southern Sudan

1. SELECTION OF NUTS. Dried nuts are purchased from local communities. The nuts are sorted in grades - A, B, C - as listed:

- Grade A: dried whole nuts without fungal or insect damage—used in the production of pure shea-butter body cream
- Grade B: dried nuts, some cracked but without fungal or insect damage—used in the production of edible oil
- Grade C: dried, dark with fungal and some insect damage—used in the production of soap

2. POUNDING/GRINDING OF NUTS. LULU Nuts are hand-pounded or engine-ground into grainy/fine powder; then mixed with boiling water at 1/20 ratio. The boiling water is to release the oil molecules.

3. PRESSING OF LULU OIL. The hot powder is filled into clean cotton/polyester bags (2 cups/bag); and pressed (8 - 10 bags/load) utilising a hand-operated screw press. Care is taken to not fill the bags too full or push the press handle when tight.

4. LULU OIL CLARIFICATION. LULU Oil from the press is then mixed with water at ratio of 2 parts oil to 1 part water. The oil water mixture is slowly heated in a large saucepan to boiling temperature and monitored by thermometer to reach no higher than 200 F. The mixture is stirred often with wooden paddle and kept below 200 F for 10-15 minutes or until water and impurities have fallen to bottom of the saucepan. The saucepan is set to cool at ambient temperature for 20 minutes. Then the lulu oil is carefully scooped from surface using a shallow, wide-mouthed spoon into a smaller saucepan. The residue at the bottom of the saucepan is not disturbed during the scooping process. A small layer of oil should be left just above the water level. The remaining layer of oil is then scooped out and placed in another container for soap processing. This is intended to prevent any contamination from entering the first scooping of oil. The scooped oil is heated again gently until popping of water in the oil is not heard. This oil is set aside and marked "Cold Press Grade A LULU OIL".

5. MEASURE AND FILTERING. The Grade A LULU oil is then cooled to ambient temperature and measured and filtered into 5 and 20 litre clean jerry cans. During this step the women must wear disposable plastic food-handling gloves. The jerry cans are a translucent white, which allows for a final evaluation of the quality as small impurities show as discoloured blotches and are rejected for body cream and edible oil formulations. The jerry can must be marked with the NAME of the processing centre, the GRADE of oil, and the DATE of processing.

6. FORMULATING AND PACKAGING. The grade A LULU oil is then formulated with fragrances and essential oils and packaged in 100ml containers, and labelled for the market outlets. LULU LIFE is the registered product name for LULU WORKS cold press LULU butter.

7. CLEANLINESS. All women involved in processing must wash their hands prior to working and wear clean aprons and head ties during all steps of oil processing.

ANNEX 11. NEW SUDAN LULU NETWORK (NSLN): FOUNDING MEMBERS PRINCIPLES & OBJECTIVES

1. Producer equity through decentralised, small-scale production enterprises dispersed throughout the *lulu* belt of New Sudan and based on cooperative principles and worker-owned and -managed organisation
2. Primary focus on women's ownership, in recognition of their role as the traditional custodians of the *lulu* resource and guardians of household food security
3. Emphasis on product quality to serve first the domestic markets with expansion to regional markets once a regular surplus is established
4. Community-driven conservation and sustainable management of *lulu* trees and woodland for the future of the *lulu* resource, and the livelihoods of future generations
5. Organise itself on the basis of full representation and equal ownership by producer groups across the New Sudan, communicate marketing information, coordinate production and marketing activities, support joint extension activities in technical, organisation and management, and marketing issues.
6. Collectively appeal to the civic leadership to establish an enabling policy and judicial environment (e.g. cooperative laws, tax status for an infant industry, community-driven conservation & management of the *lulu* resource).
7. Collectively appeal to donors, NGOs and individuals to support individual producing groups with appropriate village-level processing equipment, material inputs, market development, and training activities.
8. Request support to establish a 'Mobile Technical Support Unit' and a 'Co-ordination & Marketing Office' as rational structures for the NSLN to pursue its principles and objectives.

Wulu, Nov 2001

ANNEX 12. THE SHEA NETWORK MISSION STATEMENT

The Shea Network is an informal network of shea butter producer groups, marketing associations, support organizations and other shea stakeholders across Africa.

The Shea Network is based on the following principles:

1. Producer Equity: Our task is to establish a new industry of improved Shea butter production for rural Africa, based on decentralized, small-scale production enterprises, widely dispersed throughout the shea belt in each of the shea-producing countries. Our production units will be based on added value for maximum returns to the primary producers of sheanut and shea butter.

2. Women's Ownership: Our production enterprises will be founded principles of maximum ownership and management by rural women, in recognition of women's role as traditional custodians of the shea resource, and primary guardians of household food security.

3. Product Quality: Our shea products will be of consistently and exceptionally high quality, to serve the needs of consumers at the local, national, regional and international market levels. The highest quality products will maintain a higher value for the consumer, and higher returns to the producer.

4. Serving Local Needs First: Our primary emphasis will focus on local and national markets for shea products, with expansion to high-value regional and external markets once a regular surplus is established.

5. Conservation and Sustainable Resource Management: For long-term sustainability, our industry is based on community-driven conservation and sustainable management of shea trees and woodland, for the future of the shea resource, and the livelihoods of future generations.

ANNEX 13. PACKAGING COSTS

Khartoum					
Name of Supplier	**Address**	**Products**			
Elba Plastics Company	Khartoum North	small plastic buckets and containers primarily used for sesame tahaniya products, local sweets			
Item	**Size**	**Price details**	**Cost/1000**	**US$ /1000**	**$ cost each**
Small plastic bucket and snap on lid and handle	3 kg	sud pd 1.4 each + 12% VAT	1568	$804.10	$ 0.80
Small plastic bucket and snap on lid and handle	500g	sud pd 0.5 each + 12% VAT	560	$287.18	$ 0.29
Small plastic bucket and snap on lid and handle	1 kg	sud pd 0.7 each + 12% VAT	784	$402.05	$ 0.40
Small plastic container and screw on lid	100ml	sud pd 0.15 each + 12% VAT	168	$86.15	$ 0.09
Small plastic container and screw on lid	125 ml	sud pd 0.175 each + 12% VAT	196	$100.51	$ 0.10
Cost quoted above is FOB from Khartoum factory.					
Rumbek					
Horsey Brothers, Rumbek					
Plastic water bottle	500ml		$450		$0.45

ANNEX 14. PARTNERSHIP AGREEMENT FOR LULU WORKS PROCESSING CENTRES

We, the women of the *Lulu Works* Processing Centre (CPU) named _____ of the Boma/Payam _____
We, the management of LLP/MEDIC
We, the Civil authorities of County, Payam, and Boma level and Chiefs
We, the SAAR office of the County
We, the members of the _____ Civil Society organization

On the date of _____ hereby recognize a formal partnership between the undersigned based on the following articles, which represent a binding agreement:

I. LLP/MEDIC OR LULU WORKS REPRESENTATIVES AGREE TO:

- Facilitate the members of _____ *Lulu Works* Processing Centre (CPU) to develop their own constitution;
- Supply one press, for a total payment of the equivalent of US$600 value in processed lulu oil, to be repaid over an agreed period of months, as specified below, into the CPU revolving fund;
- Provide all training, guidance and support, both technical and managerial, to the CPU;
- Supply all agreed materials to the CPU to construct store and processing facilities;
- Supply all agreed materials to the CPU for lulu oil production initial quantity for free, and thereafter at an agreed price based on cost recovery;
- Manage the revolving fund generated by repayment for the press and operating materials in a transparent manner;
- Present a 6 month financial report to all stakeholders showing all income and expenditures, and facilitate an annual audit of all activities;
- Develop the capacity of locally active civil society organizations to:
  - mobilize and animate communities to understand and participate in *Lulu Works*,
  - assist in market development for lulu products,
  - deliver lulu literacy training, and
  - monitor the performance of all parties to this agreement;
- Provide any necessary materials and documents to Civil authorities to support administration activities for the *Lulu Works* activities;
- Payment of the normal tax by any employee of LLP/MEDIC receiving salary;
- Endeavor to support the Civil authorities with appropriate training to strengthen their capacity for democratic response, transparent and accountable governance practice, in line with the SPLM vision for South Sudan.

II. THE WOMEN OF _____ LULU WORKS PROCESSING CENTRE (CPU) AGREE TO:

- Recruit and admit women members without discrimination as to religion, ethnic background, social or economic status;
- Support the concept of worker-ownership, i.e., that no woman may be a member of a *Lulu Works* Processing Centre unless she works the agreed upon minimum work time, unless for approved absences, and that no revenue or products will be distributed to women who are not working members;

- Respect and follow all rules and procedures as agreed in the *Lulu Works* Constitution and Code of Conduct;
- According to the *Lulu Works* Constitution, democratically elect on an annual basis, the following CPU leadership:
  - Chairwoman: responsible for the day-to-day management of the center and reporting to CPU group members, LLP/MEDIC and designated *Lulu Works* regional representative,
  - Secretary/Treasurer: responsible for the group meeting notes, record keeping, financial recording and reporting, and reporting to CPU group members, LLP/MEDIC and designated *Lulu Works* regional representative,
  - Technical Trainer/Quality Control: responsible for technical training/product development training, ensuring all product meets standards, and reporting to CPU group members, LLP/MEDIC and designated *Lulu Works* regional representative,
  - Marketing Manager: responsible for identifying and supporting all local marketing, and reporting to CPU group members, LLP/MEDIC and designated *Lulu Works* regional representative,
  - Stores Manager: responsible for ordering and managing all inventory/stores materials and equipment, and reporting to CPU group members, LLP/MEDIC and designated *Lulu Works* regional representative,
- Take ownership and management responsibility for the CPU hand press (including maintenance and replacement), all supplies and materials in the CPU Store, and any monies collected or disbursed on behalf of the CPU;
- Repay the total loan of US$600 worth of lulu oil for the supplied oil press to LLP/MEDIC according to the following agreed schedule:

By Date:	**# Litres Lulu Oil:**
1._____	1._____
2. ._____	2. ._____
3. ._____	3. ._____
4. ._____	4. ._____
5. ._____	5. ._____
6. ._____	6. ._____

- **Follow agreed procedures in case of loan default, according to above agreed schedule, as defined in Section 6, Article 6.1;**
- Collect and store all nuts required for CPU production;
- Manage the CPU Store, providing monthly inventory reports to LLP/MEDIC and designated *Lulu Works* regional representative;
- Keep daily and weekly production and sales records on forms provided and submit those reports to the designated *Lulu Works* regional representative;

III. THE CIVIL AUTHORITIES OF _____ COUNTY AGREE TO:

- Officially recognize and support the _____ *Lulu Works* Processing Centre (CPU), its Constitution and Code of Conduct;
- Convene and chair any meeting requested by any partners to this agreement;

- Allow official exemption of taxation on nuts collected and income earned by the sale of lulu products by the CPU for a minimum of 12 months, to be reviewed annually thereafter;
- Endeavor to utilize revenue generated by taxes on lulu products for the provision of public services in the community, activities to benefit the lulu industry or protect the lulu trees, and to ensure that tax payers understand how their tax contribution is being used to enrich their society;
- Strengthen the development of policies and laws for the protection of the lulu trees in _____ County, and the right of lulu users and producers;
- In collaboration with Civil society organizations, collect the opinions and ideas of the community concerning all aspects of the *Lulu Works* industry and the performance of all stakeholders, and then compiling these results into a quarterly report to assist all stakeholders in identifying their strengths, weaknesses and the opportunities to improve.

IV. THE SAAR OFFICE AGREES TO:

- Facilitate and support the activities of LLP/MEDIC and the *Lulu Works* _____ Processing Centre (CPU);
- Participate in all meetings called to address lulu issues;
- Ensure that all relief NGO/Donors operating in _____ County are encouraged to replace imported relief oil and soap with locally purchased lulu products;
- Encourage SAAR Offices in other counties and regions to seek markets for lulu products and also encourage relief agencies to use lulu products;
- Enact and disseminate community conservation policies, and protect the rights of women to retain custodianship of the lulu resource.

V. CIVIL SOCIETY STRUCTURES AGREE TO:

- Mobilise and animate the population that owns the _____ *Lulu Works* Processing Centre (CPU) to collect surplus nuts for sale to the CPU store;
- Undertake an awareness raising campaign in all villages of the County about the Lulu Livelihoods Programme and how to participate and provide support;
- Assist in the collection of market data and the identification and promotion of markets for lulu products;
- Participate in all meetings convened to discuss lulu issues;
- Promote potential trainers for training in REFLECT literacy methodology and then to deliver training to members of the CPU and other community members;
- Collaborate with Civil authorities in the collection of opinions and ideas of the community concerning all aspects of the *Lulu Works* industry and the performance of all stakeholders, and then compiling these results into a quarterly report to assist all stakeholders in identifying their strengths, weaknesses and the opportunities to improve.

6. PROCEDURES IN THE CASE OF LOAN DEFAULT BY THE LULU WORKS PROCESSING CENTRE:

- Within 4 weeks of being late in the repayment schedule as defined in Article 2.3 above, LLP/MEDIC will meet with members of the CPU to find a solution. If a solution cannot be determined, the Commissioners Office will convene a meeting of all stakeholders to decide whether to reschedule the loan, repossess the press and other lulu supplies, or initiate court proceedings.

SIGNED BY:
On Behalf of the _____ *Lulu Works* Processing Centre:

_____ Title:_____

On Behalf of LLP/MEDIC: _____

Title:_____

On Behalf of the Civil Authorities of County: _____

Title:_____

On Behalf of the SAAR of _____ County**:** _____

Title:_____

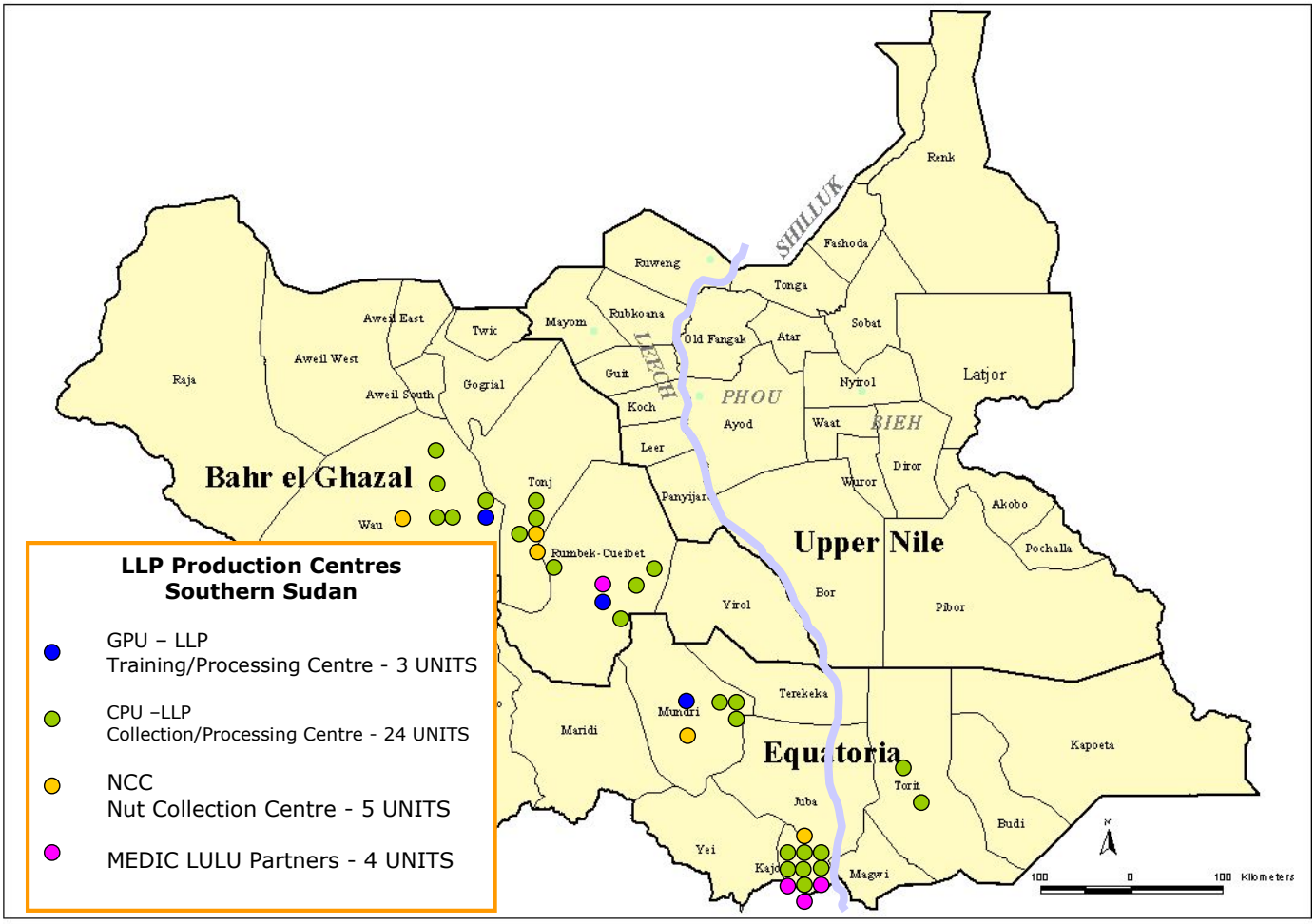
On Behalf of the _____ Civil Society Organization:

_____ Title:_____

The following Leadership was duly elected on _____ by the members of the _____*Lulu Works* Processing Centre;

Chairwoman:
Name:_____ Signature:_____
Secretary/Treasurer:
Name:_____ Signature:_____
Technical Trainer/Quality Control:
Name:_____ Signature:_____
Marketing Manager:
Name:_____ Signature:_____
Stores Manager:
Name:_____ Signature:_____

ANNEX 15. MEDIC LULU LIVELIHOODS PROGRAMME ACTIVE PROCESSING CENTRES, 2007



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