



CASE STUDY

DAK ACHANA: PURSUING FOOD SECURITY WITH MARKET ENGAGEMENT IN KENYA

A MARKET ENGAGEMENT INNOVATIONS AND IMPACTS CASE STUDY



DAKACHANA: PURSUING FOOD SECURITY WITH MARKET ENGAGEMENT IN KENYA

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This CARE Market Engagement Innovations and Impacts Case Study features the experiences of CARE Kenya under the five-year Dak Achana Project. The case was selected for inclusion in the series due to its focus on food security, a growing area of priority across a range of CARE country office programs. Dak Achana applied a multi-dimensional approach to improving food security that included components on food for work, VSLA, HIV/AIDS, agriculture and market engagement and water and sanitation. Emerging lessons have direct relevance to other CARE country offices and other actors looking to overcome food security constraints through integrated strategies that include market engagement.

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EXECUTIVE SUMMARY

Elizabeth Akinyi moved to Rusinga Island on Kenya's corner of Lake Victoria as a newly married young woman in the 1980s. She notes that before she participated in CARE's Dak Achana project in 2004, "we were hungry through almost the whole year." After her husband left for teacher training in Nairobi, she often had trouble affording vegetables or growing enough maize to supplement her family's meals of fish from her days spent "pulling nets" on the lake. Food insecurity was a daily reality for her and her children.

Through the Dak Achana Project, CARE introduced Elizabeth and her farmers' association to VSLA and commercial agriculture. Soon their yields began to increase, the quality of their produce improved with the purchase of certified seed, and their negotiating power through CARE resulted in contracts with a national grocery broker. At the same time, the VSLA members were increasing their savings from their new income sources and the group's loans grew large enough to cover big projects like housing improvements and irrigation system investments.

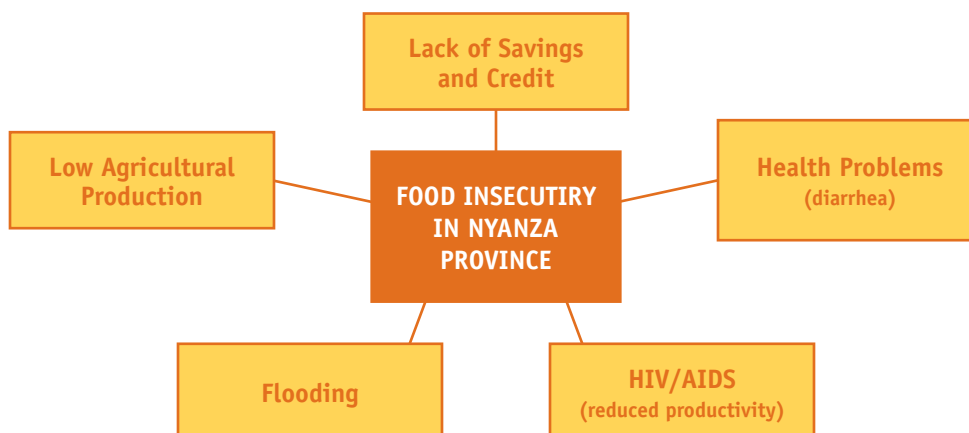
The profits from her expanding horticulture farm and the loans she takes from her VSLA group allowed Elizabeth to pay not only for her own teacher training program, but also for her son's university tuition. She has steadily invested in building a new house for her family and in growing her farm business. She says, "I eat what I want, even milk every day"¹.

This case study explores how CARE Kenya combined food security programming with an emerging market engagement strategy to decrease food shortages and increase incomes in western Kenya. With support from USAID, CARE implemented the Dak Achana project from 2004 to 2009. Over this period, the multi-component initiative succeeded in reducing the incidence of food shortages among the target area households from 86 percent in 2006 to 65 percent in 2008. The project has benefitted well over 100,000 Kenyans. These results are not insignificant in a region where 60 percent of the population lives in poverty and 90 percent of households depend on subsistence agriculture for their staple foods².

Food insecurity in western Kenya stems from a whole range of complex issues. The vision for Dak Achana was to integrate a menu of interventions to deal with selected challenges that contribute to food insecurity in Nyanza province (Figure 1). These interventions included:

- TASK, a market-focused agriculture project
- COSAMO, a VSLA component
- WASEH, a water/sanitation project
- HIV/AIDS Life, a nutritional support project for orphans and vulnerable children, and
- Food for Work, a food distribution project to address flooding issues.

FIGURE 1. CHALLENGES CONTRIBUTING TO FOOD INSECURITY IN NYANZA PROVINCE, KENYA



For the Dak Achana proposal, CARE staff realized that they needed to move from simply increasing food production to developing commercialized agriculture to help farmers increase their incomes. Staff noticed that when they promoted only production-related improvements, families would still sell off their food supply and household assets to pay for necessities like school fees or cooking oil. The experience of watching hungry families sell their food supply showed CARE staff that household-level food security depends in part on a basic level of income security.

In response, CARE designed Dak Achana to work with a broad array of agricultural value chain actors rather than focus primarily on improving farmers’ production. The CARE team also understood that it had to consider input supply, finance and market linkages. For each crop that CARE decided to promote, Dak Achana’s agriculture component conducted market and feasibility analyses and prepared a “business case”³ to convince the farmers that the new varieties and markets would improve their incomes. These studies were, in effect, value chain analyses.

While the Dak Achana proposal initially suggested using cotton as the high-value crop on which to focus interventions, stakeholder input led CARE to switch to high-value food crops as they could both support household nutrition and be a source of income. The promotion of butternut squash, tomatoes and watermelon instead of cotton contributed greatly to CARE’s success in addressing both livelihood and food security goals.

The results of Dak Achana support and trainings, its food security goals and the use of market engagement strategies has had a lasting impact on farmer practices and productivity at both individual and group levels (Table 1). For example, three years after CARE left their village, the Poche pineapple farmer group continued to maintain the production levels they achieved during the project, growing and selling over 2,000 pineapple plants per year, per household⁴. CARE’s choice of a mix of high-value cash and food crop value chains and the introduction of VSLAs and commercial agriculture trainings led to long-term increases in income, enhanced savings, reduced hunger and overall improvements in regional food security among smallholder farmers in western Kenya.

TABLE 1. SELECTED RESULTS BY DAK ACHANA COMPONENT

INDICATORS AND OUTPUTS	BASELINE (2002)	TARGET (2008)	ACTUAL (2008)	+/- TARGET
TASK agriculture component				
# HHs earning at least USD \$365 per year from sale of agricultural produce	436	2,336	2,343	+7
# HHs adopting at least three improved husbandry practices and/or varieties	2,970	3,825	4,015	+190
#Farmer Associations establishing formal links with contract growing orders	0	90	96	+6
COSAMO VSLA component				
# VSLA groups established	0	720	426	-294
# People saving in self-managed GSL groups	0	6,000	8,182	+2,182
Amount of collective accumulated savings (US\$)	0	\$1.1m	\$33.1m	+\$22m
Amount of loans disbursed (US\$)	0	\$1.5m	\$62.9m	+\$48.0m

The project offers some important lessons learned that suggest that CARE can produce even stronger results in the future with adjustments to the Dak Achana model. Although project impacts continue to enhance the lives of many smallholder producers in western Kenya, most of the value chain relationships CARE promoted could not respond to ongoing problems with payment timing, increased demand and lack of a trusted intermediary. Where trust, transparency and human capital issues exist, the value chains could not survive shocks like the post-election violence of 2007 or the exit of CARE as an honest broker they could trust.

Today, as CARE offices around the globe are increasingly incorporating activities to help ensure food security into their programs, Dak Achana offers lessons on the challenges and strengths of combining market engagement strategies—and a value chain approach in particular—with food security goals.

OPERATING CONTEXT AND OPPORTUNITIES

Elizabeth Akinyi moved to Rusinga Island on Kenya's corner of Lake Victoria as a newly married young woman. She knew no one but her husband's family, had no land of her own, and possessed few marketable skills. Elizabeth remembers the early years of her marriage as a time when "you are a woman at home. You wait for the husband to bring [you things]... Before the husband gives you ten bob (US\$0.80), you wait." She felt isolated and adrift in her two-room mud hut on her in-law's property.

Elizabeth already had three children to feed when her husband began studying in Nairobi for his teaching certificate. She became financially responsible for the entire household. As she prepared for the arrival of another child, Elizabeth worried about how she would afford their school fees and enough food to keep them healthy. To earn an income, she joined the only industry on Rusinga Island, the fishing trade: "I started learning pulling [nets]. I go to fish to help my young ones, because they had to eat."



Elizabeth quickly learned that the local fishing industry is dominated by the men. Women are limited to "pulling" and buying the fish as they arrive off the boats, which they later sell in the village and local markets with small price mark-ups. The fishermen give the best and biggest fish to women who will trade sexual favors for them. Elizabeth refused this indignity and found her profits suffered the consequences.

She notes that before she participated in CARE's Dak Achana project, "we were hungry through almost the whole year." She often had trouble affording vegetables or growing enough maize to supplement her family's meals of fish. Food security was a daily struggle for her family.

Dak Achana is the local name for CARE Kenya's two-phase Development Assistance Project (DAP) in western Kenya, formally titled Sustainable Livelihood Security for Vulnerable Households in Nyanza Province, Kenya. Dak Achana means "healthy households" in the local Luo language. This case study⁵ focuses on the second phase of the project, implemented with support from USAID from 2004-2009.

Food Security Challenges In Nyanza Province

Like Elizabeth Akinyi's family, most Kenyan households rely on the staple crops they grow. Nearly 90 percent of households in Nyanza Province plant maize for their own consumption⁶ and many also grow sorghum and beans. Yet food insecurity is a surprisingly common problem along the lush shores of Lake Victoria. After the long rains, the maize crop is generally harvested in July, but the food this yields often does not last through the short rain harvest in December.

On Rusinga Island, Elizabeth says that her household supply of maize was often running low by October⁷. A CARE survey likewise found that 85 percent of Nyanza Province households experienced a food shortage for about three months out of the year⁸.



This perpetual cycle of food insecurity in Nyanza Province stems from multiple complex issues. The region features recurring natural disasters that have a particularly devastating effect on food production. On a day-to-day basis, rural smallholder farmers tend to have limited access to or knowledge of how to best use credit, improved farm inputs, or non-local markets to increase their agricultural outputs and income. Meanwhile, high rates of HIV/AIDS have reduced the productive capacity of the local people and left one in five children with only one parent⁹. On Rusinga Island, CARE and USAID staff report that the HIV/AIDS rate is now at 40 percent of the adult population. Elizabeth Akinyi acknowledges that many of the women she knew from the fishing trade in the 1990s have now passed away from complications related to the disease. According to the Government of Kenya, the adult population of Nyanza Province has an HIV/AIDS rate of approximately 22 percent in 2001¹⁰.

Natural disasters also play a role in the low agricultural production of the region. Where Lake Victoria meets two rivers in the Nyando and Kisumu districts, an average of 3,000 persons per year were affected by flooding from 2000 to 2004¹¹. The canal and river systems were clogged by silting and weed growth that contributed to flooding and occasional levee breakdowns during the long rains. The floods regularly displaced families, ruined agricultural fields and spread water-borne disease for months afterwards¹².

Economic Context

In 2004, when Dak Achana's second phase got underway, the poverty rate in western Kenya averaged 60 percent, or 10 percent above the national average¹³. Rural household incomes in Nyanza province depend on farm income, small businesses (often agriculture or natural resource-based), some salaried work and remittances¹⁴. Multiple gaps in most value chains exist between producers and input and other service suppliers, finance providers, and buyers. The result is farm incomes that remain stagnant and production that is focused primarily on subsistence agriculture.

While the dominant crops in Nyanza Province are staples like maize, sorghum and beans, horticultural crops tend to be worth much more on the local markets. The baseline survey showed that the small percentage of households that grew tomatoes was able to sell 75 percent of the crop and earn five to ten times the amount earned by those selling maize¹⁵. CARE Kenya recognized this disparity as an opportunity to enable households in Nyanza to increase their incomes by producing horticultural crops in high demand in local markets. However, CARE recognized that numerous constraints to smallholder participation in these chains would need to be addressed and overcome in order to realize this vision:

- Due to rural isolation or lack of credit, many farmers were unable to access appropriate inputs for high value crops. They also lacked knowledge of how to use these inputs and other agricultural techniques to maximize their yields.
- Many farmers also lacked access to financial services. They were too poor to qualify for microfinance loans and often there were no banks or microfinance institutions operating in several Dak Achana target districts when the project began¹⁶. Without access to finance the farmers could not afford the high-quality certified seeds, fertilizers and other inputs they needed.
- Beyond these constraints to improving production, smallholder farmers lacked connections to markets beyond their local communities. Prior to CARE's intervention, even farmers who produced high-value crops like pineapples¹⁷ were limited to carrying their goods to local markets themselves or resorting to farm-gate buyers who set low prices and sold the goods to regional markets on their own terms.
- Farmers often felt they had little power, whether to negotiate with buyers or to improve their own livelihoods. With limited market information and marketing knowledge, the risk-averse farmers often did not try new crops or seek wider outlets for their goods.

Having identified these constraints as the most critical in the short-term—and the ones that were most aligned with the overarching Dak Achana objective of enhanced food security—CARE set out to design an intervention focused on market-based agriculture that would work in partnership with the other project elements.



CARE'S RESPONSE

Dak Achana was a two-phase project, first implemented in 1999 as DAP I. Even prior to that project, CARE Kenya had a long history in Nyanza province. According to Gary McGurk, the Assistant Country Director for Programs, CARE has been working in Nyanza province for at least 20 years. CARE's ongoing investment in the area has resulted in an infrastructural foundation that serves the organization's needs for the western part of the country. Over the long term, CARE has built trusting relationships with local governments, other NGOs and communities that facilitate effective programming.

The second phase of Dak Achana developed as a result of CARE's past experience in the region, an international understanding of food security, expert advice and direct feedback from intended and previous participants. For Dak Achana, the proposal team designed a five-component intervention (Table 2) to address multiple causes of food insecurity along Lake Victoria. The initiative, supported by USAID, was intended "to improve, in a sustainable manner, the food and livelihood security of vulnerable households in seven districts in Nyanza Province, Kenya, during FY 2004-2009"¹⁸. The goal was to benefit 110,000 persons at a cost of US \$7.5 million.

TABLE 2. THE FIVE COMPONENTS OF DAK ACHANA

COMPONENT NAME	GOAL	PRIMARY TARGET POPULATION OR AREA (FLEXIBLE)
TASK (agriculture)	To address low food production rates and other constraints to improving smallholder incomes through agriculture.	Districts with high agricultural potential along Lake Victoria.
WASEH (water/sanitation)	To improve the biological utilization of food by lowering rates of diarrhea and water-borne illness among the population.	Districts where CARE had not already promoted household-level safe water systems during DAP I.
COSAMO (VSLA)	To create a culture of savings and improve access to credit sources.	The poorest households where DAP I had already developed productive relationships with government agencies and community groups.
HIV/AIDS Life (orphans and vulnerable children [OVCs])	To combat evidence of malnutrition and wasting among OVCs related to poor biological utilization of and access to nutritionally dense foods.	Areas with high HIV/AIDS rates where DAP I had identified community groups already working with OVC populations.
Food for Work	Via a local partner, to provide food in exchange for villagers' labor clearing canals and improving the water infrastructure.	The poorest workers in flood-prone areas along Lake Victoria.

Developing An Initial Strategy

In 2002, CARE began shaping a follow-on proposal to USAID for an expanded second round of Dak Achana that built on experience gained during DAP I. Longtime CARE Kenya employee Njorge Maina (see photo) worked on DAP I, helped develop the strategy for the second phase and served as the agriculture component Project Manager and later as the overall Program Manager for Dak Achana. Maina noted that experiences from DAP I strongly influenced several important decisions for the project's second phase:

- use of a multi-dimensional approach
- need for increased flexibility in implementation options, and
- a new approach to agricultural programming focused on income security instead of only production capacity.



USING MULTIPLE COMPONENTS

In terms of a multi-dimensional approach, CARE Kenya had long been pushing for the use of multiple, flexible project components to address complex problems like food insecurity. The multi-dimensional approach was perceived by CARE staff as a valid response to the many factors of food insecurity in Nyanza Province. First, it offered a menu of interventions the staff could use to approach a variety of participants. For example, the agriculture component was meant to target smallholders near the lake in areas of potentially highly agricultural production. The HIV/AIDS Life component, on the other hand, would target the most vulnerable households struggling to support orphans and vulnerable children (OVCs) in areas with high HIV/AIDS rates. Using this strategy of targeted interventions, COSAMO Project Manager Nelly Otieno says the whole team felt they had the best chance to succeed with their multi-dimensional intervention.

Second, CARE staff wanted to use the multiple components to address USAID's three-tiered framework defining food security. At the time of Dak Achana's strategic development, USAID had outlined food security in terms of the access to, availability and biological utilization of nutritious foods. This definition informs the U.S. government's current Feed the Future effort to combat food insecurity on an international scale (text box). Like CARE's current priorities, Feed the Future uses market engagement and women's empowerment as important tools in the fight against hunger¹⁹. Dak Achana sought to address these main elements of food security with five interventions targeted at different populations (Table 2).

By improving yield, introducing higher value crops and developing market linkages through the TASK agriculture component, CARE aimed to make food more available to the population through markets and household-level income security. The culture of savings created through the COSAMO VSLA component would allow households to afford food and other necessary items during the famine months when prices tend to rise in local markets.

FEED THE FUTURE: ELEMENTS OF FOOD SECURITY

“A family is considered food secure when its members do not live in hunger or fear of hunger.

“Food security is defined as having four main components:

- availability
- access
- utilization, and
- stability.

“Families and individuals require a reliable and consistent source of quality food, as well as sufficient resources to purchase it. People must also have the knowledge and basic sanitary conditions to choose, prepare and distribute food in a way that results in good nutrition for all family members. Finally, the ability to access and utilize food must remain stable and sustained over time.”

Source: www.feedthefuture.gov/commitment.html

Access to clean water at the point of use is a crucial requirement for food security that the WASEH water/sanitation component sought to address. The HIV/AIDS Life component supported OVCs while the other components worked to enhance overall food availability and accessibility through their broader household gains. Finally, the Food for Work component would help communities learn to improve and maintain canal and river infrastructure where floods regularly displaced households and ruined crops.

FLEXIBLE INTERVENTIONS

Beyond the multi-dimensional approach, the new Dak Achana strategy was more flexible in allowing staff to choose relevant and practical implementation and intervention methods. Thinking about how this supported the project, Maina notes “we boxed ourselves in with phase one by limiting (in the DAP I proposal) the types of water systems and agricultural crops CARE could use on the ground.” When the DAP I team hit the ground in 1999, they found their limited choices among approaches and technical methods meant they could not respond



to local needs and conditions as closely as they felt was necessary. With the second phase of Dak Achana, the CARE team defined a wider list of choices for interventions, crop types and water systems. This initial emphasis on flexibility set an expectation with CARE staff and at USAID that changes were likely and on-the-ground decisions would be made based on a wide range of factors. Doing this right from the design phase proved to be an important element of Dak Achana's success.

The ability to offer a menu of flexible interventions also facilitated Dak Achana's approach to communities. The project entered villages through partnerships with district and provincial authorities who helped CARE identify existing and potential "self-help" groups²⁰ that could choose which Dak Achana intervention they needed most. Using local groups to engage participants was a culturally appropriate methodology in a country where *the group is the bridge*²¹ to the people. Women, in particular, are more likely than men to form and participate in self-help groups in Kenya (though men often participate in the groups and may even lead them). CARE's use of groups ensured that the project would work primarily with women who tend to bear responsibility for family welfare and the consequences of food insecurity.

MOVING TOWARD A MARKET ENGAGEMENT APPROACH

CARE Kenya had plenty of experience teaching farmers new ways to increase crop production, but the focus on commercial agriculture was going to require a new approach. The TASK agriculture component was CARE Kenya's first foray into using the value chain approach to link farmers to markets.

At the time they were preparing Dak Achana's proposal, CARE Kenya's western region strategy (2000-2005) identified priorities for improving incomes through agricultural production, but it did not incorporate the value chain approach into the program. During DAP I, Maina and his team recognized that "food alone isn't going to move the community to the position we want...What we found is that [the households] are growing the food, but because these people still need non-food items, they would be selling the little food that they have. Not because they have enough [food], but because they still need sugar, they need salt, and they have to pay medical [expenses]." Discussions about this problem among the Dak Achana team and Zadock Okute, a Kenyan agronomist on the proposed CARE team, led them to pursue a new strategy for the agriculture component. The TASK team felt they needed to move beyond increasing subsistence food production and toward commercialized agriculture to help farmers create new income sources.

Thus, instead of focusing on increasing only staple crop production, TASK would promote high-value crops and a commercial agriculture approach to increase income security among smallholder farmers. The new focus would require farmers to have access to more expensive certified seeds and markets where they could sell their crops. Dak Achana had shifted toward a strategy that would evolve into a value chain approach. The proposal submitted to USAID emphasized commercial agriculture, using cotton as the main crop to promote income growth among smallholders.

CHANGES TO THE TASK AGRICULTURE COMPONENT

In the first three months of implementation, the TASK team began reconsidering their choice of cotton as the primary high-value crop the project should promote because the beneficiaries were farmers who practiced subsistence agriculture before the CARE intervention. Reflecting on early feedback from the farmers, the TASK team realized that the leap to a purely cash crop was too big a risk for subsistence-focused farmers.

Instead of continuing with the initial plan to promote cotton for cash, the project officers accommodated the groups' requests and identified and conducted market analyses on alternative high-value crops that could both generate income in the marketplace and contribute to household diets. They chose to look at crops that would grow in the region, were familiar to Kenyan consumers (such as kale), or were similar enough to popular crops that local tastes could accommodate them (including butternut squash, which is similar to sweet potato in flavor and texture). Through market and stakeholder analyses, CARE found that these types of crops can be sold for higher prices than maize or other staple crops while also meeting household consumption needs during times of food scarcity. As a result, the team replaced cotton with certified varieties of butternut, watermelon, tomatoes, kale, sunflower seed and green grams (also known as mung beans).

As their work progressed with the farmer associations, Maina and his team discovered additional benefits of using the new crop varieties. First, they diversified farmers' production and household consumption and provided a source of income in maize-saturated local markets. Some of the horticultural crops also could be grown during the short rains and did not necessarily deplete or compete with the farmers' basic food supply of maize, sorghum and beans. At the farm level, crop diversity also contributed to more stable incomes by providing farmers with multiple harvests and spreading their income over a larger portion of the year. Within villages, crop diversity provided more variety in local markets. The Asawo Farmers' Unit (page ##) took this lesson from CARE to heart by agreeing among members to plant different crops to reduce market competition within the group and to increase diversity of the village diet.

With the switch to commercial agriculture using horticultural crops, market engagement tools such as market analysis, marketing training, and value chain linkages became an important part of Dak Achana's work. High-value horticultural crops require more financing, better inputs and links to wider markets to be successful. As with all CARE agriculture projects, farmer training was a major part of the strategy. To deal with risk-averse farmers and chain stakeholders who had little experience dealing with smallholder farmers, Dak Achana used cost-sharing schemes, provided interest-free loans for seed and fertilizer purchases and transported agricultural inputs and produce between market actors.

The three community-level cases featured in this report offer examples of how the TASK team dealt with market engagement issues on the ground and the results of their efforts. The cases are:

- Pineapple production
- Basmati rice
- Rusinga Island horticulture and VSLA

Each case contains a map of the value chain during the Dak Achana project. To see a comparison of the value chain maps drawn before the interventions began, during project implementation and after their conclusion, see Annexes A through C (Poche, Basmati and Asawo Farmers Unit).

The three community-level mini-cases featured in this report offer examples of how the TASK team dealt with market engagement issues on the ground and the results of their efforts. The cases address interventions in Basmati rice, horticulture and pineapples. Each mini-case contains a map of the value chain during the Dak Achana project while the Annexes provide illustrations of the value chain maps before interventions began, during the project and after Dak Achana's conclusion.

MINI CASE 1

PINEAPPLE PRODUCTION: CONNECTING SMALLHOLDERS TO NATIONAL AND INTERNATIONAL MARKETS

When Dak Achana arrived in their village, the Poche Women's Group had already been producing a high-value crop. They grew and sold pineapples to regional middlemen who haggled with the women to determine the prices based on the size of each pineapple (ranging from 5Ksh to 20Ksh per fruit, or U.S. \$.06 to \$.25). When the middlemen did not come to their village, the women carried pineapples on their heads over 15 kilometers of rough roads to Homabay city, or sold the fruit at throwaway prices to women traders at the nearby Olare marketplace.

The Poche group and other local producers told the TASK field officers that they needed help expanding their markets and gaining negotiating power. CARE trained the Poche Women's Group in improved fruit production and marketing and soon identified one national and one international buyer for their pineapples. As with the Basmati case, TASK organized the chemical fertilizers, buyers and transportation for the fruit and later dispersed profits, minus the unit costs for transport and inputs, to the producers.

During the CARE intervention, the Poche Women's Group sold their pineapples by weight (13Ksh per kilogram, or US\$.34 for a small, two-kg fruit). The group earned so much that they requested a borehole water pump under Dak Achana's WASEH component, for which they collectively invested 100,000Ksh (about US \$1,300). Group members also individually invested in household assets such as replacing thatch with metal roofing on their homes or purchasing plows or oxen for their farms.

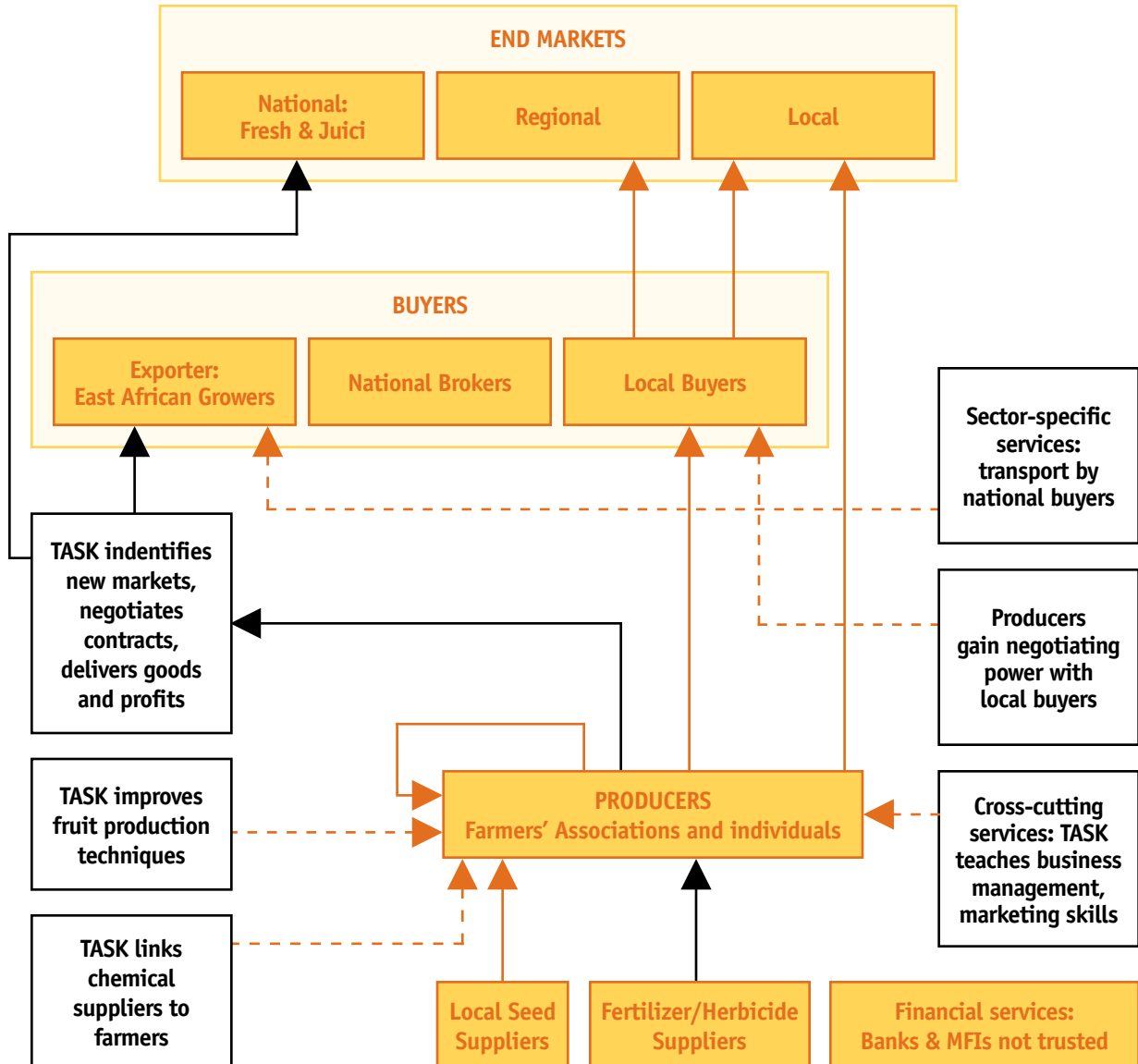


CARE was making significant progress when, in 2007, Dak Achana was forced to cut activities short due to Kenya's post-election violence. At that time, CARE had not yet formally linked the producer groups with the national broker, Fresh & Juici, Ltd, or the international broker, *East Africa Growers*.

RESULTS AND LONG-TERM OUTCOMES

Without a formal introduction and time to build trusting relationships among the value chain actors, the national and international market linkages deteriorated when CARE abruptly pulled out of the region for security reasons. The pineapple farmers say that the market linkage failed because CARE never introduced them to the national brokers. This is a step CARE anticipated taking but one the organization was unable to pursue due to the post-election violence.

POCHE PINEAPPLE VALUE CHAIN: DURING DAK ACHANA



Poche Women's Group no longer sells their pineapples to Fresh & Juici, Ltd., or any other national broker. The chairwoman of the group, Eunice Anyango, reports that they have returned to using local middlemen, who again set prices with little to no producer involvement. Another member of the group, Peter Anyango, notes that once CARE left they never approached other potential buyers on their own. This outcome holds an important lesson for CARE's ongoing market engagement work. It points to the importance of facilitating relationships between smallholders and other market actors as early as possible to foster trust and resilience up and down the chain, and the need to train smallholder groups in marketing skills.

Yet despite the failed national and international linkages, the group continues to reap positive benefits from their higher yields and overall sales. In terms of positive results, the farmers continue to produce pineapples using TASK's improved agriculture practices and their yields remain much higher than before CARE intervened.

Group members say they now have enough pineapples to sell to cover their household costs during the famine months, even when selling at the reduced price local brokers pay. Most importantly, they no longer experience food shortages for three or four months of the year.

[Based on interviews with members of the Poche Women’s Group and Kakageko Horticultural Cooperative Society, and TASK Project Manager, Njorge Maina. Photo: Chairwoman Eunice Anyango shows off the group’s produce.]

Synergies Among Dak Achana Components

Dak Achana team members point out that all five interventions are designed to complement and support each other when and wherever they interact. Making this happen, however, was a challenge for CARE country offices. Despite CARE’s deep experience in agriculture, HIV/AIDS and water and sanitation issues, the VSLA methodology and the Food for Work component represented new areas. In the end, both the Food for Work and VSLA components produced unexpectedly positive externalities that the agriculture team could then build on.

Food for Work and TASK

Initially, the Food for Work component posed a particular challenge. This component was not included in the initial proposal and was added later at the request of the funder. The Dak Achana agriculture staff felt that distributing food commodities would undermine the goals of the market-based agriculture component, but it was clear that the inclusion of some form of food distribution was non-negotiable, so CARE applied the food-for-work model in a farming area that had long suffered destructive floods.

When implemented, the Food for Work component yielded unanticipated benefits for the ongoing agriculture module. The rehabilitated canals developed under Food for Work helped stem flooding in the area and the TASK agriculture team was able to take advantage of the cleared planting ground to help smallholders expand project activities into high-value Basmati rice production (see below).

MINI CASE 2

BASMATI RICE PRODUCTION: LEVERAGING FOOD FOR WORK TO ENHANCE MARKET ACCESS

Farmers have raised rice in the Nyando and Nzoia River plains along Lake Victoria for decades. In recent years though their output had become increasingly limited by flooding that destroyed crops, displaced families, and clogged irrigation systems with silt. And because farmers typically use recycled seed and low-quality rice varieties that produce small harvests, they are limited to selling their product in narrow local markets.

The project approached a local NGO, the Victoria Institute for Research on Environment and Development (VIRED), to act as the implementing partner for the Food for Work component. Under VIRED’s guidance, Food for Work participants cleared the silt and weed growth that clogged canals and riverbeds and returned more than 80 acres of rice paddies to production.

Prior to the Food for Work success in the rice paddies, the TASK agriculture team had not included aromatic rice among the high-value crops it would promote to increase food and income security, focusing instead on

crops that could grow on a wide range of soils. The newly cleared rice paddies of Upper Kotieno village offered an unexpected opportunity to move into a new crop variety that the agriculture team believed would improve incomes in an area with rice-growing skills and land. TASK field officers analyzed the market for aromatic Basmati rice and found a strong national demand for this high-value variety. This finding convinced them to promote Basmati rice production in Upper Kotieno.

Recognizing that CARE would need to demonstrate the market opportunity to local public and private sector actors—and the farmers—the TASK field officers worked with the district government to identify interested groups of farmers and then conducted trainings on good agricultural practices and commercial agriculture. For two seasons, CARE offered farmers interest-free loans to purchase certified seeds, fertilizers and pesticides. The team also intervened in the transport sector, acting as a shipping intermediary on a fee-for-service basis for the certified seed from the supplier, the National Irrigation Board, to the farmers. Later, when the Basmati harvest was collected, CARE marketed and sold the crop on behalf of the farmers' groups to the National Cereals and Produce Board (NCPB).



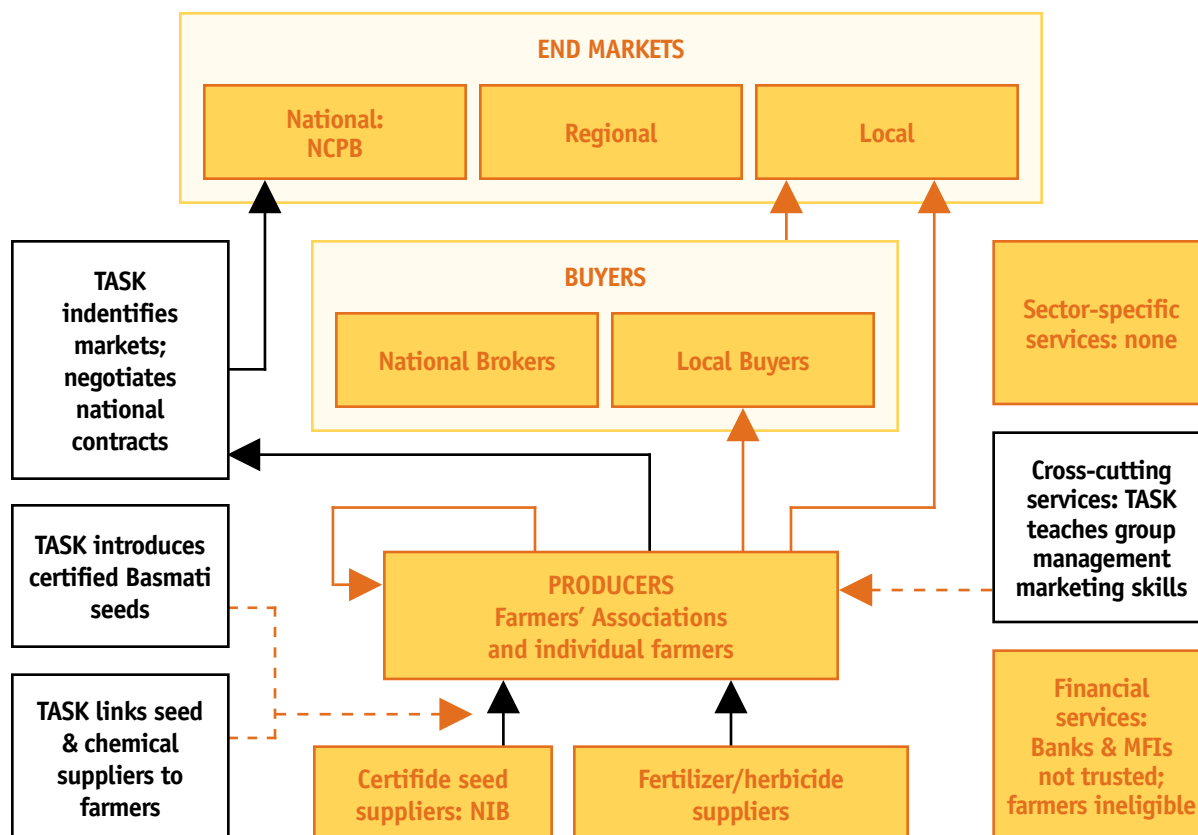
Having demonstrated the viability of Basmati rice production among smallholders when embedded financial services are provided, CARE convinced the National Irrigation Board to sell Basmati seed locally to the farmers. CARE also introduced the farmers to the NCPB buyers and another international NGO that sought to act as an honest broker to the value chain actors. These actions facilitated CARE's exit from this project component.

RESULTS AND LONG-TERM OUTCOMES

Many of CARE's partners and beneficiaries continued working in the value chains Dak Achana identified and even brought in new partners and funders. An example of successful market linkages, the National Cereals and Produce Board (NCPB) applauds CARE's work to introduce Basmati rice in Nyando and Kisumu districts. The NCPB continues to buy the highest quality rice that farmers produce at above-market prices and regional representatives say that Kisumu rice from the Upper Kotieno area is in high demand.

Unfortunately, farmers are unable to meet the NCPB's level of demand and, in fact, supply is decreasing. According to regional representatives at NCPB and rice farmers themselves, the two biggest challenges facing the Basmati value chain are the issue of on-time payment to farmers by NCPB and farmers' inability to secure certified seeds since CARE left. The timing of payments is vitally important to

BASMATI RICE VALUE CHAIN: DURING DAK ACHANA



farmers' businesses as well as for their household income security. First, if farmers do not receive payment for goods delivered within a few weeks, they cannot pay input suppliers, or school fees, or purchase other non-food household items. In addition, farmers perceive any delay in payment beyond two weeks as evidence of foul play. Second, the farmers report that the National Irrigation Board no longer sells Basmati seed in the Upper Kotieno area. As a result, some farmers have returned to using local, non-Basmati seed, or to recycling the certified seeds year after year, which reduces their yield and quality.

To address this issue, NCPB now works with Cent Sacco, a cooperative farmers' bank that another NGO brought in to offer financing to farmers after Dak Achana ended. As is typical when new actors come into a region, there is a lack of trust between the farmers and Cent Sacco. Farmers still feel NCPB and Cent Sacco do not pay them promptly and this appears to be an ongoing problem. On the other hand, it is by no means an unsolvable constraint to restoring growth in the Basmati rice sector, because the farmers and NCPB both report they are committed to continue working in Basmati rice.

[Based on "DAP II Annual Results Report" and interviews with TASK field officer, Joseph Agunda; TASK Project Manager, Njorge Maina; employees of NCPB; and members of Upper Kotieno Rice Scheme group.]

VSLAs and TASK

The early challenge for the VSLA component—empowering the poorest Kenyans to save—turned out to be a source of great synergy between VSLAs and the agriculture component. The idea for VSLAs had previously shown promise in places like Zimbabwe and Niger where CARE pioneered the approach. Yet, staff in Kenya still wondered if their target beneficiaries—the poorest of the poor—had anything that they actually could save. Even potential participants protested to VSLA Project Manager Nelly Otieno, asking her, “[who are] those people who tell you to save and you are poor...where do you get money from?” Nonetheless, the VSLA work went forward, engaging any self-help group that would accept the training on CARE’s terms, which included stipulations against CARE providing any sort of seed money to jumpstart the savings process.

Reflecting on the experience, Nelly remembers communities where the group members could afford to save only five Kenyan shillings (Ksh) a week (US \$0.06). Later, as group members began to see their savings increase and grow with interest those same groups increased their savings rate to over 100 Ksh per week (US \$1.30) and sometimes higher. The small successes of the VSLA groups became a source of empowerment for both groups and individual participants, most of whom were women. Where VSLA operated in conjunction with other Dak Achana components, CARE staff began to see positive outcomes. For example, groups participating in VSLA and agriculture or water sanitation components were more successful in managing group issues, raising funds for cost-sharing in other project interventions and applying business principles to their income-generating activities, including on-farm ventures.

The CARE team found that VSLA “became the software of Dak Achana”²², as it supported other activities where components worked together. The greatest synergies often were found where COSAMO and TASK were implemented together. Elizabeth Akinyi participated in both components and her experience demonstrated that using the VSLA approach in combination with a structured market engagement initiative could enhance outcomes for both.

MINI CASE 3

RUSINGA ISLAND HORTICULTURE & VSLA: SAVING AND GROWING TOGETHER

When Dak Achana arrived in Rusinga Island in 2005, Elizabeth Akinyi was ready to take full advantage of the project. She borrowed a small, two-row plot from her husband’s grandfather and joined the recently created Asawo Farmers Unit when they applied to participate in the TASK component. Under TASK, the group learned similar production and marketing skills for horticultural crops as the Basmati and pineapple farmers.

Although Dak Achana presented the Asawo Farmers Unit with the option to take the VSLA training in their first year, they chose not to participate because CARE did not offer seed money for loans. However, Elizabeth approached Nelly and asked if she could join a training session for community-based VSLA trainers as an individual.

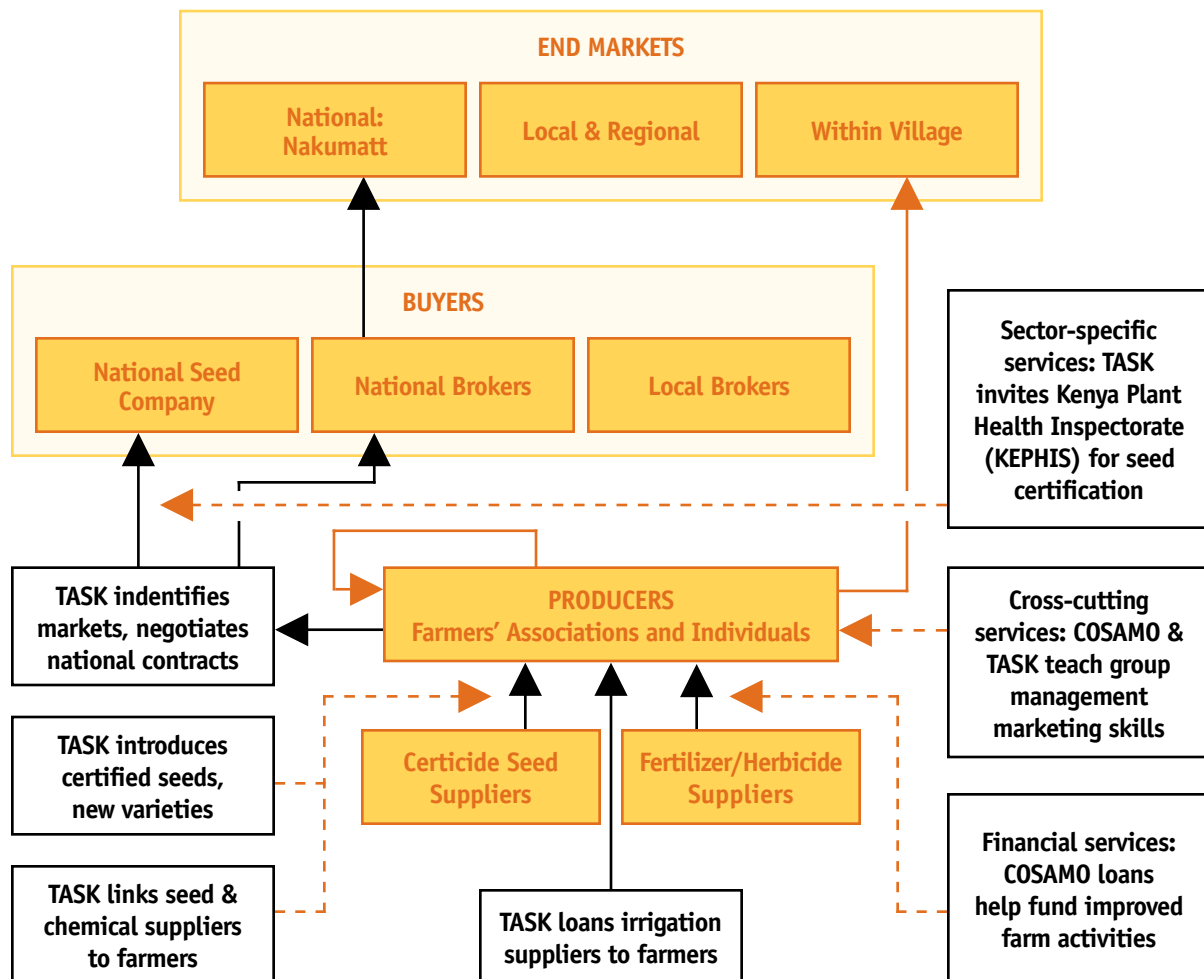
Nelly, the VSLA Project Manager, said Asawo group members eventually changed their minds about VSLA because, “come year two, they realized that for us to get a higher yield from agriculture, it means we must buy the right

seed, we must plant at the right time, we must buy insecticide, and we must transport our produce to the right market. And where do we get that money?" With her new leadership skills as a VSLA trainer, Elizabeth helped form and train the Asawo savings and loan group.

Through Dak Achana, farmers' yields began to increase, the quality of their produce improved with the purchase of certified seeds and their negotiating power through CARE resulted in contracts with a national grocery broker, Nakumatt. At the same time, the VSLA members were increasing their savings from their new income sources and the groups' loans grew large enough to cover bigger projects like housing improvements and irrigation system investments. After the first year of saving together, the Asawo VSLA group liquidated and re-invested with 54,000 Ksh (US \$6,750), a larger sum than any of them had ever seen.

Their small successes began to translate into more confidence and trust, and better planning as a group and as individuals. The investments they made in their horticulture farms paid off and the VSLA group increased its monthly savings limit to 5,000 Ksh (US \$625) so they would have a place to invest their new income sources. The loan limit increased to 40,000 (US \$5,000) per individual (early on members had been afraid to take more than 100 Ksh (US \$12.50) at a time). Now they "borrow with a purpose" for their farms and they do not doubt that they can repay the loans because their investments in their farm businesses are reliably paying off.

ASAWO FARMERS' UNIT HORTICULTURE VALUE CHAIN: DURING DAK ACHANA



RESULTS AND LONG-TERM OUTCOMES

After the CARE project ended, the Asawo Farmers Unit found that the national broker's demands were too taxing and they also had some problems with nonpayment from Nairobi-based brokers. Again on her own initiative, Elizabeth stepped up and became the negotiator for both the Farmers Unit and "at least 100 farmers" in and around Rusinga Island. Elizabeth has developed personal relationships with buyers at regional (Kisumu and Kisii) and local (Mbita) markets and she is able to negotiate good prices, transportation/pick up and payment for farmers. Recently, she negotiated a deal to sell five tons of watermelons to the Kisii regional market.

In addition, Elizabeth and the Asawo Farmers Unit president, Daniel Ochieng', both represent the village on the local government's district agriculture committee. Elizabeth credits her participation in Dak Achana for her current successes (see page ## for more details). She says that "those who accepted COSAMO [VSLA] are doing better". The synergies between the VSLA training and new income sources from the TASK commercial agriculture training benefit both activities.

[Based on interviews with COSAMO/VSLA Project Manager, Nelly Otieno; Elizabeth Akinyi; and other members of Asawo COSAMO group and Asawo Farmers Unit.]



RESULTS

Dak Achana was a learning experience for CARE Kenya. While they used a value chain approach with very little external support or input, they succeeded in reducing the incidence of food shortages among a sample of Nyanza province households from 86 percent to 65 percent during the five-year, multi-component project.. Through its agriculture component alone, the project reached 4,750 households, or approximately 33,250 people and all five components benefitted well over 100,000 Kenyans. The project team met or exceeded most of its goals (Table 3) while challenging themselves to use new approaches, particularly in commercial agriculture and community savings.

TABLE 3. SELECTED RESULTS BY COMPONENT

INDICATORS AND OUTPUTS	BASELINE (2002)	TARGET (2008)	ACTUAL (2008)	+/- TARGET
TASK agriculture component				
# HHs earning at least USD \$365 per year from sale of agricultural produce	436 HHs	2336	2,343	+7
#Farmer Associations establishing formal links with contract growing orders	0 FAs	90	96	+6
# HHs adopting at least three improved husbandry practices and/or varieties	2,970 HHs	3,825	4,015	+190
COSAMO VSLA component				
# VSLA groups established	0	720	426	-294
# People saving in self-managed GSL groups	0	6,000	8,182	+2,182
Amount of collective accumulated savings (US\$)	0	\$1.1m	\$33.1m	+\$22m
Amount of loans disbursed (US\$)	0	\$1.5m	\$62.9m	+\$48.0m
# VSLA group members with new IGAs	0	1,200	5,424	+4,224
Food for work component				
Length of canals de-silted and repaired (km)	0	210	830	+620
Length of riverbeds and streams excavated and banks strengthened (km)	0	200	422.5	+222.5

Long-Term Accomplishments

Even two years after project closeout, groups such as the Poche pineapple producers continue to report higher incomes than before CARE's intervention. In many places where Dak Achana worked farmers are using improved production methods, certified seeds and other agricultural technologies. Though food security remains an issue for many households, CARE's work improved incomes and is making a real difference in the lives of many project participants.

Another indicator of project sustainability is the ongoing success of participant groups. Many Dak Achana-facilitated farmers' associations, water and sanitation boards and VSLA groups are still operational and some have even multiplied into new groups. For example, on Rusinga Island both the Asawo VSLA group and Farmers Unit continue to meet regularly and to increase profits gained under Dak Achana. At a joint meeting in July 2010, the VSLA group reported that members had collectively saved and redistributed, through loans, approximately 500,000 Ksh (US \$62,500) in just three years. In addition, Elizabeth and other VSLA community-based trainers report that they continue to train new savings and loan groups.

Anecdotal evidence²³ suggests that groups that participated in VSLA and other Dak Achana components were more likely to be successful in raising funds, managing group issues and applying business principles to their income-generating activities. Many beneficiaries who participated in both TASK and VSLA agreed that the combination improved both their commercial farm activities and their ability to save. They felt their commercial farms were more successful with the VSLA group support because they had access to credit to buy agricultural inputs and their farm activities gave them a place to re-invest their accumulated savings. VSLA participants said they had improved their market literacy because they had learned how to plan, save and follow through on financial goals, which helped them succeed. And Dak Achana empowered some individuals, like Elizabeth Akinyi, to strive and succeed well beyond the average project participants (see below).

WOMEN'S EMPOWERMENT THROUGH VSLA AND AGRICULTURAL INCOMES

Elizabeth Akinyi offers a best-case scenario of how participation in multiple Dak Achana components can improve a beneficiary's life. Elizabeth transformed herself and her relationships with peers, family members and market actors, and she made a difference in the institutional structures of her environment. She has experienced and become empowered at each level of CARE's Women's Empowerment Framework.

Elizabeth's success is visible in nearly every aspect of her life, from her growing material wealth to the social, economic and political power she wields as an emerging leader on the island. VSLA gave her confidence and TASK gave her the tools to leave the fishing trade.

Elizabeth continues to cultivate her farm and to grow her savings and her confidence. With the profits from her expanding horticulture farm and the loans she takes from her VSLA group, Elizabeth has covered the cost of her own teacher training program and now pays the tuition for her son's university. She has steadily invested in



building a new house for her family. Today it features brick walls and a new metal roof. She says, “I eat what I want, even milk every day.”

With the leadership skills she learned as a VSLA trainer, VSLA group chairwoman and a founding member of her farmer association, Elizabeth has redefined her relationships and even local institutions. As mentioned in the Rusinga Island case, Elizabeth now acts as the broker for many local farmers. They call her to negotiate their prices and pick-ups from regional and local markets. She has also been elected as a farmer representative for Rusinga Island on the district government’s agriculture board.

Elizabeth says that the most important benefit she received from Dak Achana is “the knowledge” she gained—how to think of agriculture like a business, how to plan for a loan or a new life goal and how to work with similar-minded people in her village toward shared goals. She has also learned how to translate that knowledge into better outcomes for herself, her peers and her entire village.

For CARE, Elisabeth Akinyi demonstrates the importance of building local leadership for lasting change. Women’s empowerment, in particular, is an important and sometimes elusive goal, but clearly it is possible. With the cooperation of motivated individuals such as Elizabeth, the VSLA training framework can be a foundation for building small successes, group cohesion and a real sense of empowerment among even the poorest people. CARE’s role in the success of Rusinga Island’s self-help groups was in providing solid training and hands-on methods to plan and change their own destinies.

[Sources: Elizabeth Akinyi interview, 2010; Asawo Farmers Unit and VSLA group interview, 2010.]

Challenges

The deterioration of many of Dak Achana's value chain linkages, however, illustrates the long-term challenges that face strategies designed to engage smallholder farmers in value chains. Two years after the project ended, many of the linkages that Dak Achana helped create between smallholder producer groups and large-scale commercial buyers or input suppliers have ended. In the cases presented in this report, the Poche pineapple group no longer sells to either Fresh & Juici, Ltd. or East African Growers. The Basmati farmers have had trouble maintaining their input supplies even with ongoing support from an international NGO. And on Rusinga Island, the national-level buyer linkages have been replaced by local and regional buyers.

In some instances, such as the Poche example, this challenge can be attributed in part to post-election violence, but it also is a result of CARE's intervention strategy. Although CARE entered the horticulture value chains with the goal of facilitating market linkages as an honest broker, the project was unable to exit effectively from this position. The Dak Achana staff had become the dominant trusted actors and guarantors for all sides and the project timeline was insufficient to help build adequate trust and mutual, problem-solving relationships between market actors.

It is clear that Dak Achana intervened in markets on two levels—agency, meaning the capacity, skills and independence of an individual or group, and sector-level performance—but did not work with the enabling environment, which CARE sees as a key third impact area in ensuring success for market engagement. Participating individuals and groups gained valuable financial, business and agricultural skills; many of the producer groups are still functioning and working together and some of them continue to buy inputs from project-identified suppliers. Despite these gains, the long-term results are mixed and relationships between producers and national-level buyers appear to have largely deteriorated.

Moving smallholder farmers from subsistence agriculture into sophisticated national value chains may be too ambitious for a five-year project. Large-scale suppliers and buyers have more demands and market power than smallholder farmers can typically manage without serious buy-in from the value chain actors themselves or outside assistance. CARE provided that outside assistance as an honest broker, but was unable to fully complete a transition from direct service provision to facilitation. As a result, value chain actors never learned to trust each other or to collaborate to solve issues like the timing and transparency of payments and most of the national-level value chain linkages ended within two years of project conclusion.

LESSONS LEARNED

The Dak Achana experience holds a wealth of lessons for CARE and others working to advance sustainable improvements in food security.

- Value chain strategies for creating income security have an important place in food security goals.

TASK Project Manager, Njorge Maina, believes that a focus on income security may be as important as food security goals where smallholders are likely to sell off assets or staple foods to pay for other necessities like school fees. Maina says: “You really can’t talk ‘food security’ unless you talk ‘market’. Because after you supply the food, the families still need non-food items. And all that happens is that [when] you grow the food, if these people don’t have other ways of getting some income, then they end up diverting that food to get the income.” Without assuring a source of stable household income for smallholder farmers, food security may not be possible.

- Promoting crops that can meet both household consumption needs and market demand is an appropriate strategy to increase household incomes while also improving food security outcomes.

The selection of horticultural and high-value food crops for value chain assessment and promotion resulted in positive income growth and decreased reported food shortages. Using purely cash crops (like cotton) may be too big a leap for risk-averse, subsistence farmers as a first foray into commercial agriculture. When combining food security with livelihood objectives, the simple choice of using high-value foods crop can help CARE effectively work toward both goals.

- Using VSLA methods as the “lead intervention” is an effective strategy to enable other components to succeed, particularly market engagement components.

CARE Kenya staff members at all levels say that a major strength of the Dak Achana project was the linking of VSLAs with the TASK commercial agriculture and other project components. Community groups that were already functioning as VSLAs were better organized, more able to plan as individuals and groups and had accumulated a savings base that supported participant investment in their own income-generating projects. CARE can deepen the impact of its livelihood training activities by pairing them with VSLA.

- Creating sustainable relationships must be a priority for market linkages to survive over the long term.

Most TASK project efforts were focused on training farmers to grow new, higher-value crops while CARE acted as an honest broker between value chain actors. The establishment of long-term working relationships amongst actors appears to have been a secondary priority and most producer groups only met face-to-face with their national buyers when CARE was preparing to close down the project. In the future, CARE should make it a priority at start-up to facilitate the identification of barriers and work with market actors to address them and other issues in their value chain relationships. Relationship-building between market actors early in the project could facilitate trust and result in sustainable market linkages. Face-to-face introductions appeared to encourage trust and lead to long-term market links. This happened in the Basmati rice example when project staff introduced

Basmati farmers to regional representatives at the National Cereals and Produce Board (NCPB) and when NCPB representatives visited their farms. The Basmati-NCPB relationship is one of the few national-level buyer linkages to remain viable after Dak Achana ended.

- Being realistic about the capacities of smallholder farmers, the project timeline and the demands and sophistication of market buyers may improve the long-term results of a market engagement project.

Linking smallholder farmers directly to national-level brokers may have been too ambitious for a five-year project timeline. In this case, regional and local market linkages were more manageable for both smallholder farmers and the project given the short time frame. Where agricultural training is starting from scratch with new varieties and crops, or where national markets are too demanding or distant for smallholder subsistence farmers to engage in, CARE should carefully choose appropriate markets. The lower volume demands of small markets are likely to be easier for smallholders to manage and maintain over time and farmers also are more likely to have ongoing relationships with regional or local markets that CARE can help improve. Rather than creating relationships from scratch, CARE should consider promoting local and regional market relationships when time constraints do not allow for the structural change and trust building that more sophisticated national and international markets demand.

- Using culturally and institutionally appropriate methods to engage participants can help target the poor and empower women to become leaders in their communities.

CARE's use of groups ensured that the project would work primarily with women as they tend to bear responsibility for their family's food security. The groups also support an important aspect of any market engagement strategy—the ability of producers to work collectively to buy inputs and to sell their goods. Where Dak Achana engaged with self-help groups, it appears that they are generally still working together. The sustainability of these self-help groups is possible because of the cultural importance of groups in Kenya. By using preexisting institutions embedded in local culture, Dak Achana provided a stable social framework that could lead to long-term viability of project interventions.

- Allowing individual participants (rather than only group members) to benefit from CARE's market engagement strategy encourages accountability and promotes local ownership of project activities.

Although Dak Achana used groups to enter the communities, the project did not require producers to work on a community farm or other shared endeavor as a prerequisite for participating. Each household used its own land and labor and the individuals in each household reaped their own benefits. Participants learned to cultivate high-value crops on their own and many continued using the CARE-introduced techniques and varieties after the project ended. Allowing each individual to cultivate his or her own land provided them motivation to continue the work over the long-term.



THE ROAD AHEAD

Food security remains an important priority for CARE Kenya and the global CARE community. Where country offices see intersections between livelihoods and food security, market engagement strategies such as those Dak Achana used could be helpful models. CARE Kenya is currently updating its country strategic plan with an eye toward creating a more programmatic approach. The office intends to identify an impact population—very likely “women and girls of childbearing age”—as the target for a cohesive program of projects and regional interventions. Assistant Country Director Gary McGurk says that the needs of that population will drive the choice of intervention strategies and CARE will use market engagement strategies that fit into its program approach.

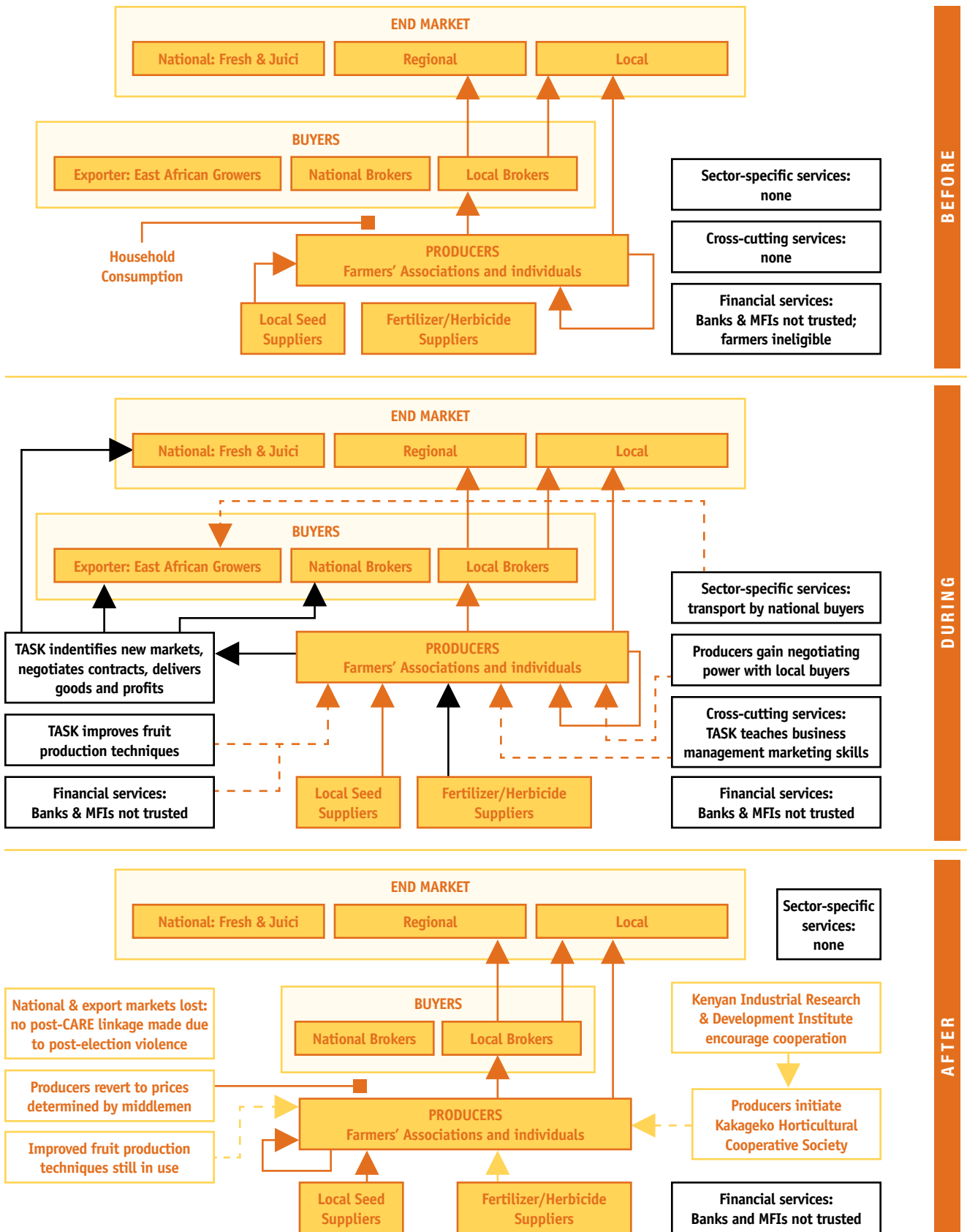
Women’s engagement also is an ongoing priority for CARE. The VSLA methods used in Kenya are often linked with increased confidence and personal skills among participating women. The women’s groups often reported improved relationships among themselves and other village members as a result of their group learning. Some women, like Elizabeth Akinyi, parlayed their new skills into leadership positions in farmer’s association and on local government boards. The impact of the agriculture component alone, however, did not appear to change gender relationships or institutions. Not only are COSAMO’s impressive, gender-specific results informing subsequent programming at CARE Kenya, the office is scaling up the VSLA methodology in a variety of pilot projects. Some staff members foresee a national rollout of VSLA in Kenya as CARE Kenya continues to use and expand it as an entry intervention for a range of projects.

Finally, as it develops new programs in the future, CARE should consider the environmental impacts of multi-dimensional projects, particularly commercial agriculture projects. While questions about environmental outcomes were asked during this case study, a more in-depth exploration or the identification of environmental indicators would help CARE obtain more reliable data on this topic.



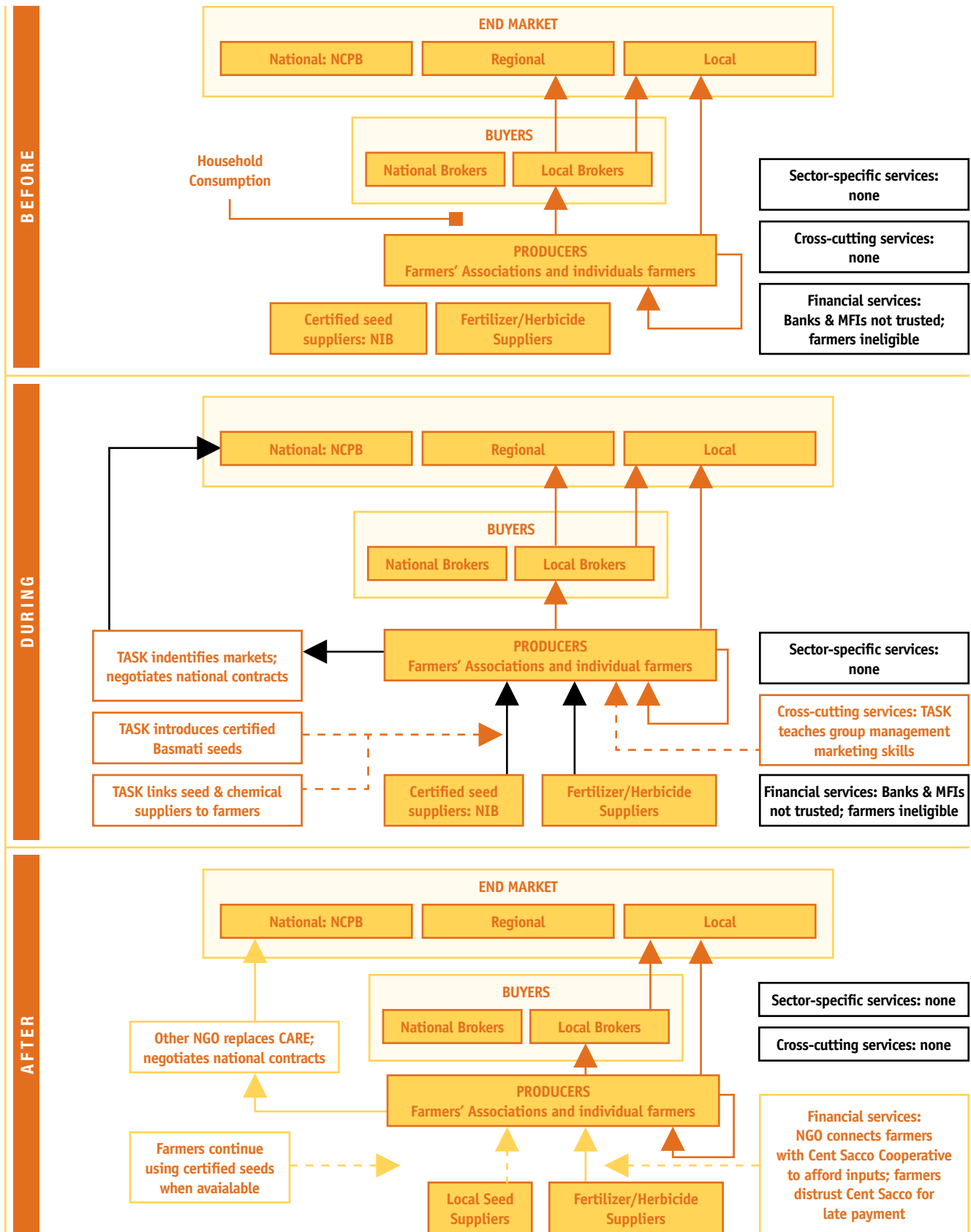
Annex A: Poche Pineapple Value Chain

BEFORE, DURING AND AFTER DAK ACHANA PROJECT INTERVENTIONS



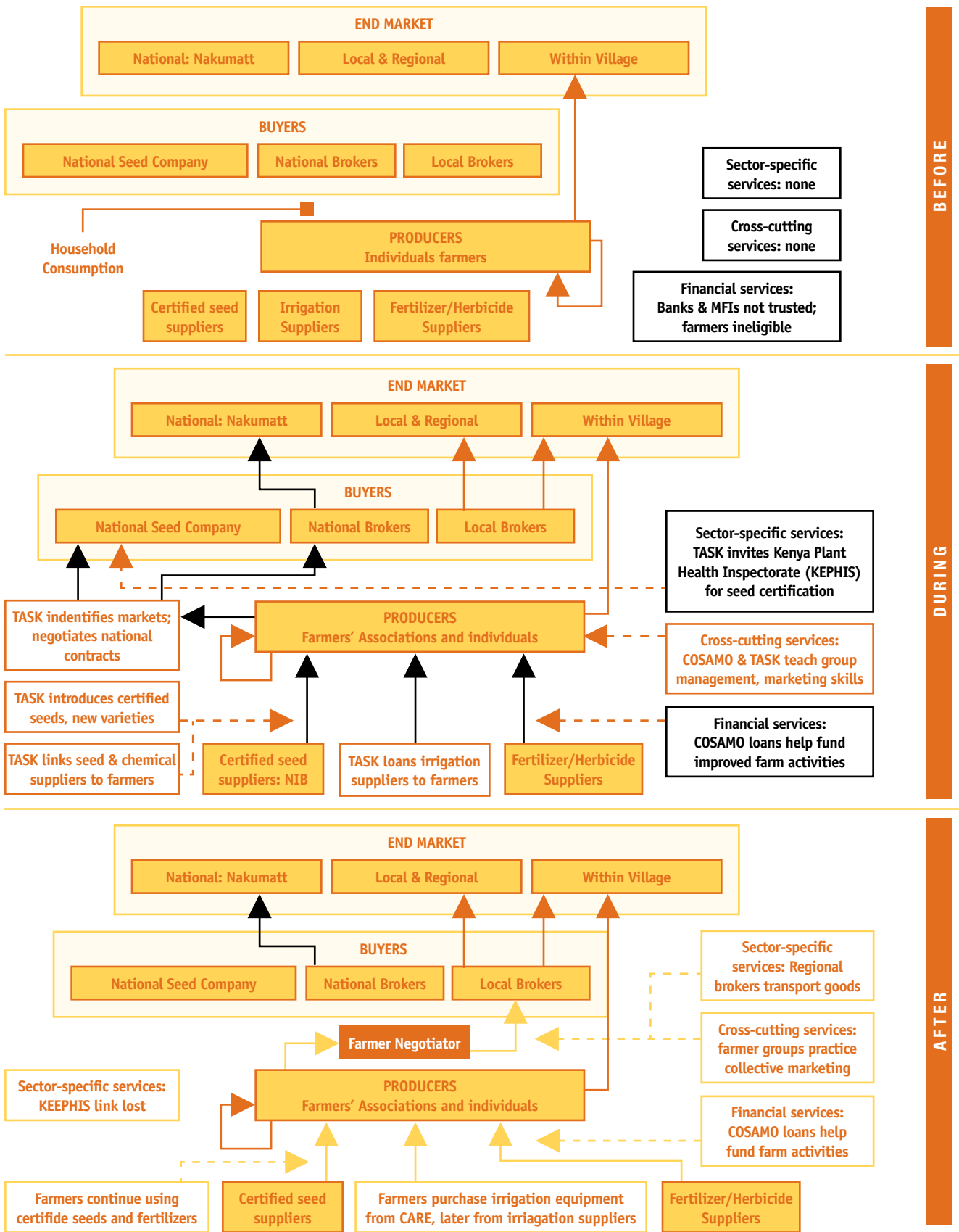
Annex B: Basmati Rice Value Chain

BEFORE, DURING AND AFTER DAK ACHANA PROJECT INTERVENTIONS



Annex C: Asawo Farmers Unit Horticulture Value Chain

BEFORE, DURING AND AFTER DAK ACHANA PROJECT INTERVENTIONS





END NOTES

- ¹ Elizabeth Akinyi interview, 2010.2 Wasao, Samson & James Mwangi, Dak Achana Program Baseline Survey Final Report, Cooperative Agreement No. FFP-A-00-3-00085-02, submitted November 2004.
- ³ Njorge Maina interview, 2010.
Poche group interview, 2010.
- ⁵ The author would like to acknowledge CARE Kenya staff in the Nairobi, Kisumu, and Homabay offices for their time and efforts to support the research for this case study. Thank you to Ken Otieno, Nelly Otieno, and especially to Njorge Maina for organizing and facilitating my visit. Thanks also to my translator, Benjamin Sulle, and to Elizabeth Kegode, Connie Otwani, Rhoda Mulinge, and the irrepressible Fred Pertet.
- ⁶ Wasao & Mwangi, 2004.
- ⁷ Elizabeth Akinyi interview, 2010.8 Wasao & Mwangi, 2004.
- ⁹ Wasao & Mwangi, 2004; Wilikista Odera interview, 2010.
- ¹⁰ Cited in DAP II Proposal: Sustainable Livelihood Security for Vulnerable Households in Nyanza and Western Provinces, Kenya, FY 2004-FY 2008, submitted November 2002.
- ¹¹ Wasao & Mwangi, 2004.
- ¹² Ahero Rice Scheme group interview, 2010.
- ¹³ Wasao & Mwangi, 2004.
- ¹⁴ Kenya Food Security Consortium, 2007.
- ¹⁵ Wasao & Mwangi, 2004.
- ¹⁶ Nelly Otieno interview, 2010.
- ¹⁷ Poche Women's Group interview, 2010.
- ¹⁸ DAP II Annual Results Report: 1 October 2008 to 30 September 2009, submitted January 30, 2010.
- ¹⁹ Feed the Future website, 2010.
- ²⁰ A general Kenyan term for locally directed community groups of all kinds that engage in activities such as farming, sewing collectives, or "merry-go-round" savings.
- ²¹ Elizabeth Akinyi interview, 2010.
- ²² Nelly Otieno interview, 2010.
- ²³ Asawo group interview, 2010; Nelly Otieno interview, 2010; Njorge Maina interview, 2010.



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