FINAL PERFORMANCE EVALUATION: KENYA AGRICULTURAL VALUE CHAIN ENTERPRISES ACTIVITY (KAVES)

FINAL REPORT

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ACRONYMS

ADPP	Animal Draft Power Program
ADSE	Anglican Development Services Eastern
AI	Artificial Insemination
AMREF	African Medical and Research Foundation
ASDSP	Agriculture Sector Development Support Program
BCC	Behavior Change Communication
CA	Conservation Agriculture
CARD	Community Action for Rural Development
CBO	Community-Based Organization
CG	County Government
CGA	Cereal Growers Association
CHMT	County Health Management Team
CHV	Community Health Volunteer
CIRIS	Client Impact and Results Information System
CLTS	Community-Led Total Sanitation
CODEC	Community Development Consultants
EABL	East Africa Breweries Limited
EAML	East African Malting Limited
ECD	Early Childhood Development
ECDE	Early Child Development and Education
EHA	Essential Hygiene Actions
ELDORIFT	Eldorift Dairy Technology Consultants
ETC	ETC East Africa LTD
EU	European Union
FGD	Focus Group Discussion
FGM	Female Genital Mutilation
FTF	Feed the Future
GAP	Good Agricultural Practices
GEFE	Gender Equality and Female Empowerment
GOK	Government of Kenya
HCD	Horticultural Crops Directorate
HFP	Hydroponic Fodder Production
HR1	High Rainfall Area 1

HST	Hermetic Storage Technology
IP	Implementing Partner
KALRO	Kenya Agricultural and Livestock Research Organization (former KARI)
KAVES	Kenya Agricultural Value Chain Enterprises
KCC	Kenya Cooperative Creameries
KDB	Kenya Dairy Board
KEA	Kenya and East Africa
KEBS	Kenya Bureau of Standards
KENAFF	Kenya National Farmers Federation
KEPHIS	Kenya Plant Health Inspectorate Services
KHC	Kenya Horticultural Council
KHCP	Kenya Horticulture Competitiveness Project
KII	Key Informant Interview
KSP	Kenya Support Project
K-YES	Kenya Youth Employment and Skills Program
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MSG	Mother Support Group
MSI	Management Systems International
MSME	Micro, Small and Medium Enterprise
MT	Metric Tons
NGO	Non-Governmental Organization
OEG	Office of Economic Growth
PHFAMS	Professional Horticulture Farms Advisory and Management Services
SA2	Semi-Arid Zone 2
SME	Small and Medium Enterprise
SOW	Statement of Work
STTA	Short-Term Technical Assistance
TMR	Total Mixed Ration
USAID	United States Agency for International Development
USG	Government of the United States of America
WASH	Water, Sanitation and Hygiene
ZOI	Zone of Influence

EXECUTIVE SUMMARY

BACKGROUND AND PURPOSE

This report presents findings and recommendations of the final Kenya Agricultural Value Chain Enterprises Activity (KAVES) performance evaluation, carried out from October 2017 to February 2018. The evaluation team consisted of a team leader, two value chain experts, two private sector experts, two nutrition experts and a research assistant.

The purpose of the evaluation was to assess the project's design and inform designs for future activities. The evaluation was also done to determine whether the activity successfully met its goals of increasing incomes, improving nutrition and enhancing food security status in the zone of influence (ZOI). To aid this purpose, the evaluation set out to answer four questions:

1. To what extent did KAVES achieve the intended goals and objectives?
2. To what extent did KAVES achieve the goal of farmer diversification into higher value chains?
3. To what extent was the value chain theory of change valid, and did the assumptions that drove the theory of change hold?
4. To what extent are the KAVES interventions sustainable without USG support?

PROJECT BACKGROUND

Awarded January 16, 2013, the five-year KAVES activity was the flagship Feed the Future (FTF) activity in Kenya. The activity promoted value chain growth and diversification with the intention of increasing productivity and incomes of smallholder farmers, along with other actors within selected value chains: staple food crops, high-value horticultural crops and dairy products, as well as sorghum and fodder. The enterprises sought to generate wealth for value chain actors, enhance food security, improve nutrition and increase economic opportunities for women, youth and other vulnerable populations. Under KAVES, engagement with the private sector took place in mutually beneficial partnerships to increase potential sustainability after the project ended.

KAVES had a target to support 550,000 smallholder farmers and their households to rise out of poverty, as well as improve nutrition and health in 22 counties in the Western and Eastern regions of Kenya by the end of the five-year implementation period. KAVES included four components:

1. Improved Competitiveness and Trade;
2. Increased Farm Household Productivity and Market Access;
3. Improved Nutrition-Related Behaviors and Improved Access to Diverse and Quality Food; and
4. Building Sustainable Local Organizations.

EVALUATION METHODS AND LIMITATIONS

The evaluation design included a mix of data collection and analysis methods to generate answers to the evaluation questions. Qualitative methods included primary data collection (key informant interviews, or

KIIs, and focus group discussions, or FGDs). Primary data was drawn from 401 stakeholders (201 women and 200 men) in seven of the 22 counties in the ZOI. Counties visited during primary data collection were selected to draw participants across key value chains in both semi-arid and high-rainfall geographic areas. Interviewees included implementing partner (IP) staff , numerous subcontractors, private sector partners, government officials at the national and county levels and beneficiaries within various value chains. A desk review also informed results presented herein. Key among these were project documents and data, as well as other relevant documents, including the Kenya Feed the Future Strategy 2011–2015 and the USAID Multi-Sectoral Nutrition Strategy 2014–2025.

The evaluation also included a telephone survey of 109 unique organizations (representing 126 respondents) that received KAVES support with outreach to at least 500,000 beneficiaries. Results from this exercise were used to augment qualitative findings.

FINDINGS

KAVES met and exceeded the ambitious quantitative targets assigned in its statement of work (SOW) and monitoring, evaluation and learning (MEL) plan. The evaluation team found quantitative and qualitative evidence that KAVES met its objectives related to competitiveness and productivity. Qualitative evidence suggested that KAVES helped farmers increase their income. While not a requirement of Feed the Future, monitoring data on income would have provided clearer quantitative evidence of progress toward this important objective. The evaluation team did not find conclusive quantitative or qualitative evidence that the activity achieved its goal of improving food security and nutrition.

EVALUATION QUESTION 1

To what extent did KAVES achieve the intended goals and objectives?

COMPONENT 1. COMPETITIVENESS AND TRADE

Dairy: Interventions to improve milk marketing efficiency had a positive impact on KAVES beneficiaries' milk collection and marketing systems. The fodder value chain was an important complement to the dairy value chain, resulting in increased farm margins.

Staples: KAVES support for establishing and rehabilitating collection centers removed a major constraint for many smallholders in accessing markets. The selection of sorghum, a drought-resistant crop, increased opportunities for traditional and nontraditional producers in supplying the growing brewery market.

Horticulture: KAVES leadership and financial support resulted in the restoration of fresh produce exports to the EU, which was a huge benefit to smallholders. During the final year of the project, private sector export subcontractors showed the correct balance of skills to develop sustainable producer groups and grow international markets.

COMPONENT 2. FARM HOUSEHOLD PRODUCTIVITY AND MARKET ACCESS

Dairy: The evaluation team was able to corroborate KAVES reports of productivity increases in high-rainfall areas, but not throughout all of the ZOI counties. The activity's work to improve genetics via artificial insemination (AI), to improve milk quality and to improve cattle nutrition to stabilize seasonal variations in milk production was verified in all producing areas. Linkages between dairy and fodder value chain resulted in production improvements.

Staples: KAVES efforts to increase productivity in staples were successful. Hermetic Storage Technology (HST) addressed post-harvest losses. KAVES promoted sorghum in both Semi-Arid Zone 2 (SA2) and High Rainfall Area 1 (HR1), with mixed results. Siaya and Kisumu counties were particularly good examples of successful interventions for sorghum.

Horticulture: Efforts by KAVES to stimulate smallholder diversification into more profitable horticultural crops were successful. Subcontractors with direct export connections were most effective in guiding producers toward increased production of marketable crops.

COMPONENT 3. NUTRITION-RELATED BEHAVIORS AND ACCESS TO DIVERSE AND QUALITY FOOD

During the first half of the activity, nutrition was not integrated with primary value chain programming, as directed in the project SOW and in the Kenya Feed the Future Strategy 2011–2015. The second half of the activity included a serious effort to promote improved nutrition behavior change among KAVES beneficiaries. It may be noted that KAVES promotion of fruit and vegetable production and the campaign to reduce aflatoxin in milk helped improve the quality and increased the diversity of nutritious foods available to many beneficiaries.

COMPONENT 4. BUILDING SUSTAINABLE LOCAL ORGANIZATIONS

The greatest potential for sustainability without continued donor support was observed within groups tied to private sector processors and/or exporters who benefited from KAVES guidance as related to extension, linkages to smallholders and group leadership development.

CROSSCUTTING INTERVENTIONS

Gender: The evaluation corroborated KAVES reporting on engagement with women, although this varied depending on the value chain and county under review. KAVES reported an uptake of technology among women, which was intended to reduce their need to perform manual labor. The evaluation established that women's asset ownership increased. In addition, KAVES successfully promoted women's pooling resources to make purchases, which related to the increased uptake of technology.

Climate and Environmental Risks Mitigation. The project demonstrated how Good Agricultural Practices (GAP), training, awareness and relatively low investment can mitigate climate change and environmental risks for smallholders, the general population and consumers.

EVALUATION QUESTION 2

To what extent did KAVES achieve the goal of farmer diversification into higher value chains?

The KAVES SOW advanced the theory that increasing productivity of maize within a smaller area and setting aside land to produce higher-value crops was a key factor in increasing income. Interventions aimed at diversifying beneficiaries' farming activities into higher-performing value chains were successful, especially in horticulture and dairy. While there is no quantitative evidence that the KAVES project beneficiaries significantly reduced the land size under maize, the evaluation team was able to confirm that farmers diversified into higher value chains.

EVALUATION QUESTION 3

To what extent was the value chain theory of change valid and did the assumptions that drove the theory of change hold?

The Feed the Future Theory of Change for Transforming Agriculture and Reducing Poverty and Hunger states: "*To generate the economic growth needed to reduce poverty and hunger and to achieve the GOK's vision of a commercial and modern agricultural sector, FTF will invest in transforming agriculture through improved competitiveness of high-potential value chains and the promotion of diversification into higher-return on- and off-farm activities. The development of selected value chains will have multiplier effects that spawn off- and non-farm employment opportunities.*"[1]

Following this this theory of change, the KAVES SOW focused on "*whole value chains"* because "*income and equity maximization can only be achieved by simultaneously strengthening other value chain actors and their inter-linkages within target communities and counties, and at the national level."* The evaluation team found convincing evidence that KAVES strengthened the capacity of various actors up and down the target value chains, however, KAVES' monitoring strategy did not cover all aspects of the theory of change. KAVES measured on-farm productivity, gross margins and farm-gate sales while reporting that over 60 percent of the beneficiaries' income came from off-farm activities. Off-farm income related to improved value chains wasn't monitored.

Income dynamics in value chains: KAVES reports and qualitative evidence gathered by the evaluation team points to increases in smallholder farmers' incomes due to KAVES interventions. Increased gross margins and sales through the supported value chains were likely to have had an overall positive impact on most beneficiaries' incomes, even though KAVES did not collect income data which could definitively prove this linkage.

Nutrition outcomes: During the first two years of the KAVES project, the IP failed to follow the project's results framework, which requires linkages between agriculture value chain and nutrition programming. The original nutrition work targeted the general population rather than KAVES beneficiaries. In 2015, programming was restructured to achieve nutrition results among KAVES beneficiaries, but the effort appeared to have been too late to achieve significant results.

EVALUATION QUESTION 4

To what extent are the KAVES interventions sustainable without USG support?

KAVES ensured sustainability by supporting and creating market incentives through value chains and providing access to affordable knowledge and technologies. KAVES interventions were most likely to be sustainable when there was collaboration with county governments, organizational support, established linkages, available input technologies, community-focused interventions and crop diversification.

CONCLUSIONS

The KAVES activity has demonstrated the validity of the FTF theory of change related to increased productivity and market access. Producers switching to more profitable crops, innovations, milk coolers,

[1] FTF Multi-Year Strategy Kenya 2011- 2015

crop aggregation centers and fodder production increased productivity in KAVES counties. Diversification to new, more profitable value chains was widespread across the ZOI. However, the effects on poverty and hunger could not be determined.

The leadership that KAVES provided to the horticulture value chain in resolving the export crisis was important. KAVES trained subcontractors, leading to a major turnaround in performance and results. Local organizations showed the potential for sustainability when linked to private sector exporters and/or processors as well as receiving support from county officials.

KAVES devoted resources to improving beneficiaries' nutrition. However, the evaluation team could not confirm significant positive change in behaviors related to nutrition. The activity did not measure beneficiaries' nutrition or on- and off-farm incomes. This was a missed learning opportunity for future FTF projects.

RECOMMENDATIONS

POVERTY, NUTRITION AND SCALE

- Especially for an activity the size of KAVES, USAID should endeavor to measure indicators such as income, poverty and hunger, even if not required by FTF.
- FTF project IPs should understand that economic gains are intended as *pathways* to improved nutrition and health for children under age 5.
- Future FTF projects in Kenya should be designed with a smaller footprint within the ZOI. Projects covering vast geographic areas within numerous climatic zones and with the intention of assisting several hundred thousand beneficiaries have limited effectiveness and do not result in large-scale sustainability.
- Projects should avoid setting overambitious quantitative targets for direct interventions at the cost of quality and depth. Projects must take advantage of all available USAID resources.
- KAVES did not utilize numerous available USAID assets that related to merging agriculture and nutrition. Project implementers must gain awareness of other donor projects to enhance results.

MEASURING VALUE CHAINS

- FTF value chain projects should place more focus on measuring small and medium enterprise (SME) employment development along value chains, as a high proportion of household incomes comes from off-farm activities.
- Place more emphasis on youth engagement in off-farm activities related to value chains as an opportunity and path to higher-level skills and incomes.
- Subsequent FTF projects and their monitoring, evaluation and learning plans should consider measuring the value added, jobs created and income generated across all functions in the targeted value chains, not only in primary production.

PARTNERSHIPS AND FINANCE

- USAID should continue efforts to encourage aggregation, as this will bring additional income to smallholders and provide cost-effective raw product supply options for dairies, fruit processors, fresh produce exporters and breweries.
- Better collaboration is needed among USAID missions, regional offices and FTF agencies. Assign a senior staff member to ensure appropriate synergy.
- IPs of FTF projects should work closely with donor-funded projects, private sector actors and public offices (Ministry of Agriculture, Ministry of Health) with similar goals and objectives.
- FTF projects should promote competitive financing for key value chain actors at the village level for improved value chain operations and enhanced prosperity.

PRODUCTION AND PROCESSING

- The dairy value chain should be a continued key focus of FTF programming.
- FTF interventions related to food safety, especially fresh produce for exporting and milk for domestic consumption, should continue.
- Development of food and fruit processing should encourage smallholder involvement through cooperatives with an interest in the financial success of processing facilities.
- When encouraging smallholders to switch to value chains promising higher returns on investment as a program strategy, production must be demand-driven. In addition, a well-structured market system, demand-driven production and support for extension services are essential.

EVALUATION PURPOSE AND EVALUATION QUESTIONS

EVALUATION PURPOSE

This performance evaluation assesses the design of USAID/Kenya and East Africa's (KEA's) Kenya Agricultural Value Chain Enterprises (KAVES) activity, guided by Feed the Future's (FTF's) theory of change. Within the FTF context, KAVES has operated with the primary objectives of raising rural household incomes and improving nutrition status by: developing sustainable agribusinesses that provide inputs and purchase products from small-scale producers; building capacity at all levels across the selected value chains; increasing productivity and marketability of maize, dairy and horticulture products produced by smallholders; leveraging smallholder access to markets and microcredit; harnessing private investment; and providing education, training and targeted interventions in water, diet, nutrition and sanitation of smallholder farmers and their families.

AUDIENCE AND INTENDED USE

The primary audience for the evaluation report will be the Office of Economic Growth (OEG) and Mission management; current implementing partners (IPs); dairy, horticulture and staple crop value chain actors; the Government of Kenya (GOK); and USAID's Bureau of Food Security.

EVALUATION QUESTIONS

The evaluation questions, proposed by USAID in the project statement of work, are listed below in original or slightly edited form.

Evaluation Question 1: To what extent did KAVES achieve the intended goals and objectives? Please consider the following four components while answering these questions.

a. The effectiveness of the proportion of the components (competitiveness, productivity, nutrition, sustainable local organizations) in achieving the goals and optimal breakdown moving forward.
b. Whether the type of programming directed at each of the four components was designed to provide enough coverage and intensity to effect change — did the activity use the budget proportions it set out in the budget? What did it do within each of the components?
c. Whether the interventions were gender sensitive. Did the activity disaggregate outcomes by gender?

Evaluation Question 2: To what extent did KAVES achieve the goal of farmer diversification into higher value chains?

Evaluation Question 3: To what extent was the value chain theory of change valid, and did the assumptions that drove the theory of change hold? Identify gaps revealed in the results framework during implementation and the extent to which KAVES addressed them:

- Where in the value chain were incomes increased the most?
- Did farmer incomes increase?
- Were there notable improvements as a result of improved nutrition?

Evaluation Question 4: To what extent are the KAVES interventions sustainable without U.S. Government (USG) support?

PROJECT BACKGROUND

KAVES is a five-year USAID activity funded under FTF, the USG's global hunger and food security initiative. The project promoted value chain growth and diversification and increased the productivity and incomes of smallholder farmers and other actors along the value chains working in dairy, maize and other staples, and horticulture crops in Kenya. The project developed smallholder enterprises growing and producing staple food crops, high-value horticultural crops and dairy products. The enterprises generate wealth for value chain actors, enhance food security, improve nutrition and increase economic opportunities for women, youth and other vulnerable populations.

From January 2013 through January 2018, KAVES aimed to support 550,000 smallholder farmers and raise rural household incomes, as well as improve the nutrition status in 22 counties in Kenya. Target production enhancement counties included: Bomet, Trans Nzoia, Elgeyo-Marakwet, Uasin Gishu, Nandi, Kericho, Bungoma, Busia, Kakamega, Vihiga, Siaya, Homabay, Kisumu, Nyamira, Kisii and Migori in Kenya's Western region, and Meru, Tharaka Nithi, Machakos, Makueni, Kitui and Taita-Taveta in the Eastern region.

KAVES' goal was to **increase the productivity and incomes of smallholders and other actors along the value chain, thereby enhancing food security and improving nutrition.**

The three activity objectives were:

1. Increase the competitiveness of selected agricultural value chains to increase incomes, mitigate food insecurity, improve nutrition and increase the incomes of the rural poor;
2. Foster innovation and adaptive technologies and techniques that improve nutritional outcomes for rural households, sustainably reduce chronic undernutrition and increase household consumption of nutrition-dense foods; and
3. Increase the capacity of local organizations to sustainably undertake value chain work.

The project included the following four components:

Component 1: Improved Competitiveness and Trade (relates to Objective 1 and comprises approximately 30 percent of total effort).

Component 2: Increased Farm Household Productivity and Market Access (relates to Objective 1 and comprises approximately 40 percent of total effort).

Component 3: Improved Nutrition-Related Behaviors and Improved Access to Diverse and Quality Food (relates to Objective 2 and comprises 15 percent of total effort).

Component 4: Building Sustainable Local Organizations (relates to Objective 3 and comprises approximately 15 percent of total effort).

Fintrac Inc. implemented KAVES with funding to the following partner organizations: Kenya Horticulture Exports, Animal Draft Power Program, Allfruit EPZ Ltd., Community Action for Rural Development, Carolina Fresh Produce Ltd., Kenya Fresh, Kandia, Kilimo Biashara Promoters Consultancy, Kenya

Promotions and Marketing Company, East Africa Market Development Associates, Global Leadership Institute, Greenforest Foods Ltd., Matengo and Associates, Ukamba Christian Community Services, Upbeat Communications Ltd., Kenya National Federation of Agricultural Producers, African Medical and Research Foundation and Western Region Christian Community Services.

EVALUATION DESIGN AND METHODOLOGY

EVALUATION DESIGN

This evaluation used a combination of qualitative and quantitative data triangulated to ensure that the team maximized use of different methods and data sources for greater rigor and validity. The evaluation team visited a representative sample of counties and conducted interviews with activity beneficiaries, IPs and collaborators, then analyzed these at the county and cross-county levels. The data were triangulated further with program documentation, survey data, FTF reports, other donor reports and government data. The full evaluation statement of work (SOW) is in Annex 1.

DATA COLLECTION METHODS

The evaluation used the following data collection methods:

- Semi-structured interviews with individuals and focus groups at the county level;
- Semi-structured interviews with individuals and small focus groups at the national level;
- A review of program documents at the national and county levels, as well as monitoring and evaluation (M&E) databases and other program records, as provided on request; and
- A phone survey with 126 representatives from KAVES partner organizations/ businesses.

The survey instruments were developed based on the initial document review and SOW approved by USAID. The list of documents reviewed is presented in Annex 5. Annex 4 contains the full survey instruments. Tables 1A and 1B indicate the number of interviews conducted in each stakeholder group, per county. The list of organizations and people interviewed is in Annex 6.

TABLE 1 (A): KEY INFORMANT INTERVIEWS PER LOCATION

Key Informant Interviews																		
	COUNTY																	
Stakeholder Type	National Level		Kitui		Meru		Kisumu		Siaya		Migori		Uasin Gishu		Nandi		TOTAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
USAID	1																**1**	
Fintrac - KAVES	5	5	1		1			2					2				**9**	**7**
Government	1	1	3	2	2	3			3	1	4	2	4	4	4	1	**21**	**14**
Partners		1															**0**	**1**
Sub-Contractors	5	1	1	1	4	5	5	1			3	3	5		2	1	**25**	**12**
Value Chain Actors	1		3		3	1	4	1			2		9		1		**23**	**2**
Financial Institutions				1					1				1				**2**	**1**
Community Health Workers				1	1									1			**1**	**2**
Beneficiaries (smallholders)								1			2						**2**	**1**
Other USAID-funded projects		1															**0**	**1**
SUB-TOTAL	**13**	**9**	**8**	**5**	**11**	**9**	**9**	**5**	**4**	**1**	**11**	**5**	**21**	**5**	**7**	**2**	**84**	**41**

TABLE 1 (B): FOCUS GROUP DISCUSSIONS PER LOCATION

Focus Group Discussions									
	National Level	Kitui	Meru	Kisumu	Siaya	Migori	Uasin Gishu	Nandi	TOTAL
No. of FGs		6	5	1	5	3	9	3	**32**
Male		16	19	2	30	8	29	12	**116**
Female		35	15	10	32	14	46	8	**160**

PURPOSIVE SAMPLING

As mentioned, KAVES implementation took place in 22 counties. Using purposive sampling, the evaluation considered agro-ecological conditions, existing value chains, youth representation and gender across KAVES counties.

SELECTION OF COUNTIES

The following criteria were used in selecting the six counties to be sampled in the qualitative evaluation:

- Region – The participating counties fall broadly into the Eastern and Western regions based on their geographical locations. The Eastern region is semi-arid and comprises six counties, while the Western region, which receives high rainfall, has 16 counties. As the Western region has more counties, the evaluation selected four counties from the Western region and two from the Eastern region.

- Regional Hub Office – In managing the implementation of the activity, Fintrac had three regional offices: one in the eastern semi-arid region and two in the high-rainfall region. Therefore, the evaluation selected two counties in each of the hub regions, with one being the hub office county. In this way, the evaluation selected three hub office counties: Kitui, Uasin Gishu and Kisumu.

- Value Chains – All value chains were supported by KAVES and KAVES sub-contractors in all counties. However, in the dairy value chain, dairy was introduced in some counties that were traditionally non-dairy. In addition, in horticulture, the yellow passion fruit was introduced, and greenhouses rehabilitated. The evaluation team also sought to ensure that there was a variety of crop representation (i.e., staples and horticulture) across all the selected counties. With this in mind, the evaluation selected an additional four counties: Meru, Nandi, Siaya and Migori. This selection, however, resulted in three counties under the Kisumu hub office. Since the value chains within Kisumu are represented in Siaya and Migori, the only interviews to be conducted in Kisumu would be with the hub office, while the rest would be done in Migori and Siaya.

Table 2 lists participating and evaluation-selected counties.

TABLE 2: KAVES PARTICIPATING COUNTIES BY REGIONAL HUB AND SELECTED COUNTIES

Region	Regional Hub County	Counties Served by Hub County	Counties Selected for Evaluation Interviews
SA2	Kitui	Meru, Tharaka Nithi, Machakos, Makueni, Kitui, Taita-Taveta	Kitui and Meru
HR1	Eldoret	Bomet, Trans Nzoia, Elgeyo-Marakwet, Uasin Gishu, Nandi, Kericho	Uasin Gishu and Nandi
HR1	Kisumu	Vihiga, Siaya, Homabay, Kisumu, Nyamira, Kisii, Migori Bungoma, Busia, Kakamega	Migori and Siaya (partly Kisumu)

ANALYSIS OF QUALITATIVE INTERVIEW DATA

First, the team transcribed the qualitative data from interview recordings, then coded the notes by evaluation question and related themes. For each county, the team then extracted coded quotations by question/theme, analyzed them across respondents and summarized them into findings. The team then compared findings against a review of documents classified in a similar manner. Once this was complete at the county level, the team compared analyses of primary data with secondary analyses to check for agreement. For most questions and themes, the analyses showed the same issues raised across counties, sometimes varied in degree or expression. The team conducted the final level of analysis by coding and drawing on national-level interviews, augmented by a second round of document review.

ANALYSIS OF SURVEY DATA

The survey targeting organizations within the value chain took place after the qualitative analysis was complete, and results verified or augmented qualitative findings through parallel analysis, as well as provided more depth. Survey respondents were drawn from 109 KAVES partner organizations. The evaluation categorized organizations into the following: input suppliers (53), subcontractors (24), processors (21), agro-technology suppliers (21), agricultural extension services (13), aggregators (six), exporters (six) and financial services providers (three). More information on the number of organizations in each category is in the Findings section of this report. The team analyzed survey data using descriptive statistics (frequency data, in most cases, because most response categories were nominal) with open-ended questions coded, as needed.

METHODOLOGICAL STRENGTHS AND LIMITATIONS

STRENGTHS

The eight-person evaluation team was a unique strength of this evaluation. They broke into two smaller teams, allowing for wider coverage over shorter periods of time, with fieldwork taking place concurrently in different locations. A mixed-methods design was particularly beneficial to this evaluation. In-depth interviews and focus group discussions were sufficient to answer all of the evaluation questions. The

telephone survey corroborated qualitative findings and generated additional insights on the capacity-strengthening support that the project provided.

LIMITATIONS AND THEIR MITIGATION

The evaluation team identified key areas of potential bias and addressed them as follows:

- *Recall bias:* The evaluation team recognized its likelihood, considering the timing of the exercise, as some respondents may not have come into direct contact with the project for some time. To manage instances where beneficiaries had a problem with recall, the team used key phrases or words that were easily recognizable, (e.g., KAVES, names of subcontractors, etc.), as well as asked respondents about participation in key activities that took place in their locality.
- *Selection bias:* The evaluation team mitigated potential bias by selecting respondents from comprehensive lists (provided by KAVES), with minimal instances where the evaluation team relied on the IP to facilitate respondent identification.
- *Limited availability of target respondents:* The evaluation team aimed to reduce the likelihood of nonresponse by scheduling interviews and discussions at times that suited participants.
- *Inadequate data:* To achieve saturation, the evaluation team set benchmarks for the minimum number of respondents to target by category. The team also performed routine checks to review completed interview numbers to ensure sufficient representation of value chain actors.
- *Data bias:* The evaluation team analyzed data from multiple sources, triangulating results where possible. This ensured that the evaluators remained neutral and exercised objectivity in analysis and reporting.
- *Loss to follow-up:* This was a risk when conducting telephone surveys. The team noted the potential for inaccurate contact information and the chance that individuals may be unavailable or unwilling to participate. To mitigate this, callbacks took place for all unsuccessful attempts following the initial round of calls, and refusals were documented.

While attribution was not explicit in the evaluation questions, the evaluation sought to provide evidence on the contribution of KAVES to desired outcomes at both the intermediary and end-beneficiary levels. Both secondary and primary data informed the findings in this report, with interview data used to infer causality where possible.

EVALUATION FINDINGS

Findings presented are aligned to each of the four evaluation questions. Results are drawn from a review of quantitative performance indicators and qualitative analysis of achievements in the key value chains under review (dairy, staples and horticulture), as it relates to the four designated project components (Improved Competitiveness and Trade; Increased Farm Household Productivity and Market Access; Improved Nutrition-Related Behaviors; and Building Sustainable Local Organizations). This section will address the crosscutting themes of gender, youth and climate/environmental risk mitigation, as they

pertain to specific components. Finally, findings on the overall programmatic approach as well as the sustainability of the project interventions will be presented.

EVALUATION QUESTION 1

To what extent did the KAVES achieve the intended goals and objectives?

This section of the report discusses the extent to which KAVES achieved results in the following areas: 1) competitiveness and trade, 2) farm productivity and market access, 3) nutrition-related behaviors and access to diverse and quality food, 4) local organizations' sustainability, and 5) linkages to overall goals of reduced poverty and malnutrition. This section then proceeds to examine whether the coverage and intensity of each intervention was appropriate. Finally, the report discusses gender considerations of the various interventions.

COMPETITIVENESS AND TRADE

Within this component, the KAVES SOW required delivery of "activities to close gaps in the selected value chains at the macro or systemic level, predominantly by establishing relationships with private sector firms up and down the value chain. In addition, increase the competitiveness of the selected value chains through improvements in the enabling environment and by expanding markets and trade. While improved on-farm productivity is indispensable for increasing smallholder farmer incomes, income and equity maximization can only be achieved by simultaneously strengthening other value chain actors and their inter-linkages within target communities and counties, and at the national level."

Per the SOW, KAVES supported the "mandatory" value chains, maize, dairy and horticulture, as well as the additional value chains, sorghum and animal fodder.

The KAVES MEL plan used a proxy indicator, "Value and volume of incremental sales (collected at farm-level) attributed to FTF implementation," to measure performance in this component. Table 3 summarizes the reported achievement of KAVES against the baseline and targets revised in the 2016 MEL plan.

TABLE 3. COMPETITIVENESS AND TRADE BASELINES, TARGETS AND ACTUALS

Value Chain	Baseline 2013*	Target 2017	Actual 2017
Dairy			
Value (USD M)	1.87	95.55	179.50
Volume (liters, M)	4.09	191.10	419.80
Maize			
Value (USD M)	1.27	44.87	6.00
Volume (MT)	3,613	128,213	17,420
Horticulture			
Value (USD M)	107.08 (2015)	178.40	187.00

Volume (MT)	547,810 (2015)	641,988	956.6

*Revised in MEL plan 2016
Sources: MEL plan 2013, MEL plan 2016, and KAVES Annual Report – FY2017

By the end of the project, KAVES reported that it had exceeded all the key targets. The evaluation of these achievements is discussed in detail under the key value chains subsections.

A. DAIRY VALUE CHAIN

In the context of the growing dairy market deficit in Kenya, the KAVES baseline report in 2013 identified low milk productivity and output as the major factors limiting the competitiveness of the Kenyan dairy industry generally and KAVES target areas in particular.[2] Milk processors supplying the urban population had invested heavily in milk collection centers and cold storage in areas of production, using sophisticated milk processing facilities. With KAVES support, other processors — including Sameer Agriculture and Livestock Limited (SALL), Kinangop Dairy, Eldoville, Bio Food and Githunguri Dairy, Brookside Dairy and the New Kenya Cooperative Creameries — have also invested in collection centers within the FTF ZOI.

Due to the proximity to the consumer, informal dairy traders captured 70 percent of the dairy market.[3] Milk processors were in direct competition with informal and unregulated milk traders, whose quality did not meet the food safety standards of the Kenya Dairy Board, Kenya Bureau of Standards or Ministry of Public Health.[4] Document review findings show that several interventions introduced under KAVES sought to improve efficiency in dairy production by supporting milk marketing systems. The key activities included the establishment of milk collection centers, support to farmer groups to register as formal milk cooperatives and sensitizing farmers on Good Agricultural Practices (GAP) related to dairy production.

The development of collection centers was cited as a key driver for farmers to enter the dairy value chain. KAVES worked with farmer groups/cooperatives to strengthen first-level aggregation through market linkages, and training leadership on group dynamics and governance. The share of milk sold through collection centers increased from 30 percent in 2013 to 47 percent in 2017. By the end of the project, the volume of milk marketed was 419.8 million liters, representing a production increase of 51 percent.[5] KAVES smallholder dairy farmers reported increased earnings through better pricing because of increased milk volumes, and better access to inputs including animal feeds and health, breeding, extension and financial services.

With support from other actors, KAVES provided technical assistance to improve the quality and safety of milk in several dairies. This intervention was implemented following government reports on health threats related to high levels of microbial content, veterinary drug residues and aflatoxin present in raw milk. Interviews with subcontractors Eldorift and Kilimo Biashara and with dairy farmers confirmed that aflatoxin presented a challenge. Milk samples sourced from dairy groups in Machakos, Meru, Kisumu, Uasin Gishu, Bomet and Bungoma reportedly failed to meet quality and safety standards.[6] Primary data provided examples of KAVES assistance that focused on tackling milk quality issues through training on aflatoxins and ways to avoid transference of microbial contaminants in raw milk.

2 KAVES baseline report, 2013
3 Ibid
4 KAVES dairy value chain analysis, 2015
5 KAVES Annual Report FY2017
6 KAVES Annual Report FY2017

Meru Dairy, a processor of Mount Kenya brand milk, received KAVES assistance that included establishing a fully equipped laboratory with the capacity to routinely conduct tests for levels of aflatoxin, antibiotic residues and microbial load in raw milk. Key informants reported reduced milk losses associated with these toxins and increased the dairy's milk collection volume from 130,000 to 170,000 liters per day over the project period. In addition, farmers from within the locality in Meru confirmed that they received training on the dangers of aflatoxin and other toxins, as well as how to prevent transfer of toxins. In interviews, farmers confirmed the training as useful in reducing losses resulting from milk spoilage.

Promotion of total mixed rations (TMRs) was another intervention introduced under KAVES to increase milk production. The TMR approach entails allocating the right proportions of feed; beneficiaries who were interviewed reported that it was very useful.

To increase competitiveness and trade, KAVES partnered with various stakeholders, such as the Kenya Dairy Processors Associations (KDPA) and Kenya Dairy Board, to run campaigns to increase milk consumption. From September 2014 to February 2015 (FY14 and FY15), this partnership ran a six-month campaign dubbed "Dairy Has It All," which aimed to enhance milk consumption by various categories of consumers while increasing milk production and nutrition. Messages to consumers and farmers were passed through both print and electronic media, billboards and roadshows.[7] As a result, milk volume processed annually rose by 11 percent, from 540 million to 600 million liters, between 2014 and 2015.

In collaboration with county and national governments, KAVES initiated the school milk program for early childhood development education (ECDE) in target counties. The expected impact of this approach was to create expanded markets for locally produced milk, improve child nutrition (milk is rich in carbohydrates, proteins and other micronutrients) and enhance academic performance[8] among schoolchildren. The program kicked off in FY2016 in Migori County for all ECDE children, but for only one school term, due to challenges including pricing, packaging and payments to the supplier. Efforts to revive the activity had not succeeded at the time of the evaluation.

B. FODDER VALUE CHAIN

Initially, fodder was not targeted as a value chain separate from dairy production. However, the importance of fodder in dairy production was realized soon after it became apparent that low availability and resultant prohibitive cost of fodder was a critical impediment to competitive dairy farming.

KAVES conducted a national fodder value chain study in 2017 that demonstrated an annual fodder deficit of 50 to 60 percent for a livestock population estimated at 17.47 million. The country experiences a shortfall of about 53 million to 57 million tons of dry matter, which is equivalent to 3.6 billion bales of hay. This shortfall was projected to double by 2035 if production did not increase.[9]

The importance of consistent and quality feeds for dairy cows to ensure year-long milk production and subsequent profitability cannot be understated. Due to the KAVES intervention, many farming households began to grow fodder for sale. Their client base consisted of dairy farmers who did not have sufficient pasture to graze their cows. This outcome has not only helped increase access to feed for dairy farmers, but it has created new trade avenues and sources of livelihood for households growing and selling fodder.

7 KAVES Annual Report FY2015
8 KAVES Annual Report FY2016
9 KAVES Annual Report FY2017

According to the KAVES final report, 3.6 million bales of hay were harvested, with sales valued at more than $9 million by the end of 2017.

Other positive outcomes include the increase in demand for both indigenous grasses and improved fodder crops. Interviews with beneficiaries suggest positive gains as households that had been unable to purchase cows now had income to do so as a result of fodder sales profits. An example of this was in Taita Taveta (SA2), where a youth group harvested stargrass and started a business to supply fodder to dairy farmers in the county, as well as in Makueni County.

An interview with a commercial hay trader, Mwailu Enterprises (operating in Kitui, Makueni and Machakos), suggests that a significant gap still exists in the competitiveness of hay farming in these counties. Challenges related to the low scale of productivity were identified, limiting cost-effective mechanization.

C. MAIZE AND OTHER STAPLES VALUE CHAINS

To address the challenge of market access for the staples (particularly maize) value chain, KAVES worked with farmer groups and traders to strengthen first-level aggregation through market linkages. This was achieved by first pooling resources among farmers to lease maize threshers. Next, farmers were encouraged to store maize in aggregation stores owned or leased by farming organizations such as Maara Grains, a community-based organization (CBO) in Meru County. This CBO sells maize in bulk to negotiate better prices, driven by higher volumes. Similarly, the New Progressive Farmers' Cooperative in Uasin Gishu shifted away from individual farmer sales to bulk maize sales at more competitive prices.

In addition, KAVES supported the establishment and rehabilitation of collection centers. This intervention included support from KAVES to ensure that centers were equipped with moisture meters, weighing scales and wooden pallets. A key example of this is the Chepterit Star Aggregators, a woman-owned cooperative in Nandi County. This cooperative received an additional moisture meter and weighing scale from KAVES. From this support, as well as capital investment from East African Grain Council (EAGC), the cooperative increased maize purchases from Nandi and Uasin Gishu counties. Based on this positive experience, the cooperative is now looking to diversify its operations to the production of maize meal and animal feed. In addition, in 2015, the Chepterit Star Aggregators signed a contract with Mary's Meals, a U.K. charity that supplies school meals to poverty-stricken schoolchildren worldwide and is working with schools in Uasin Gishu and Nandi counties: "We have acquired a new piece of land next to our rented premises using ploughed-back profits," the chair of Mary's Meals noted. Acquisition of land in a business center was regarded as a big achievement.

The creation of aggregation centers aimed to reduce marketing costs (as well as time) and enable farmers to stock their produce in commercial lots for buyers. A clear benefit of this model was enhanced economies of scale for smallholder farmers, enabling them to negotiate competitive prices. Through KAVES, the proportion of maize sold through aggregation systems in 2017 was 47 percent of all marketed maize, a significant increase from a baseline of just 6 percent.[10] Efficiency created from aggregation was viewed as the main driver increasing competitiveness and significantly reducing post-harvest losses.

While notable successes emerged from the introduction of aggregation centers among a subset of producer groups in several counties, the evaluation team observed a few cases where aggregation centers did not result in positive outcomes for local farmers. Farmers who experience low crop yields in Migori and Nandi counties pointed out that the volumes produced from their farms were sufficient only for

10 KAVES Annual Report FY2017

subsistence use, with little to no use of the aggregation centers.[11,12] In areas known to produce high volumes of maize, like Uasin Gishu and Nandi counties, observation data shows that farmers were able to aggregate maize and increase profits as a result of competitive pricing from bulk sales.[13]

The Academic Model Providing Access to Healthcare (AMPATH), which operates in Uasin Gishu County and is funded by USAID and the U.S. President's Emergency Program for AIDS Relief (PEPFAR), was expected to establish an aggregation center for the Mafuta Farmers' Cooperative, but had failed to do so. Reports of conflicting views on branding between projects resulted in a standstill in building the aggregation center that lasted throughout the KAVES project span.

BOX 1. MAFUTA FARMERS' COOPERATIVE

The Mafuta Farmers' Cooperative reported experiencing a standoff between KAVES and the USAID/PEPFAR-funded project, AMPATH, resulting in the group's not getting a much-needed and long-promised aggregation center. The standoff was reported to be over a technicality concerning which of the two projects would get the branding attribution for the aggregation center. At the time of the KAVES evaluation team's visit to the cooperative, the structure was yet to be roofed.

D. SORGHUM

As stipulated in the SOW, an optional value chain that received support under KAVES was sorghum. Sorghum was selected as an important staple, as it is drought-resistant and provides farmers and rural households with a nutritious alternative to maize. It is also a cash crop, due to growing demand from East African Malting Limited (EAML) and other beer manufacturers.

KAVES began to promote sorghum in FY 2014 via several subcontractors including Kilimo Biashara and Cereal Growers Association (CGA) in Meru County. In the Western region (HR1), Community Action for Rural Development (CARD) promoted sorghum, utilizing their commercial affiliate Transu to aggregate sorghum on behalf of EAML in Siaya and Kisumu counties, where there was good uptake and profitability in producing sorghum. The model applied by the CARD in HR1 involved working via an affiliate, Transu Ltd., as a bridge between EAML and the farmers. Transu engaged the producer groups and organized them into clusters, providing sorghum-specific training in partnership with agrochemical companies, advancing sorghum seeds to the farmers and providing them with labor-saving harvesting technologies at a subsidized cost by capitalizing on the economies of scale.

The SA2 counties of Makueni and Kitui, where CGA also was the sorghum subcontractor, showed good uptake of sorghum farming. However, farmers expressed frustration as the market opportunities that KAVES had promised for sorghum evaporated during the second year of production, leaving farmers stranded with produce at aggregation centers as volume was too low for collection by the EAML.

In 2014, the GOK Treasury imposed a 90 percent excise tax on beer made from sorghum (Finance Act 2014[14]). The removal of the previous tax break enjoyed by EAML and other beer manufacturers made the

11 An aggregation center belonging to the "Otati Producer Group" in Migori County was reported to be in disuse. The FGD revealed low maize production levels through the life of project.
12 Nandi County maize producer group FGDs pointed to high reliance on farm-gate sales.
13 KII with the CGA staff in Uasin Gishu.
14 The Finance Act repealed section 68A of the Alcoholic Drinks Control Act, which granted a 90 percent excise duty remission provided for beer made from sorghum, millet or cassava grown in Kenya. This repeal was backdated to June 9, 2016 and raised the tax charge on beer made from the above ingredients from KES 10 to KES 100 per liter.

mass production of sorghum-based beer uncompetitive. Although the 90 percent excise tax was eliminated in 2016, sorghum farmers in the SA2 counties were unwilling to continue producing sorghum, citing the negative experience in 2014.

Aside from the above findings, one common challenge that smallholder sorghum producers faced was bird infestation. Mitigation of this problem was reported to be difficult for smallholders throughout the ZOI, but especially in SA2.

BOX 2. KYAKIMWE PRODUCER GROUP, MAKUENI COUNTY

This producer group was established in 2012 and has 18 members involved in livestock farming. They partnered with KAVES through subcontractor Anglican Development Services Eastern (ADSE) in 2013 to pilot the growing of sorghum for the East Africa Breweries Limited (EABL) market. A demonstration plot was established, and beneficiaries took up the farming. The venture was fairly successful during the first year (2014), despite facing challenges in managing invasive birds. Participants enjoyed the rewards of growing sorghum after prompt payment by the EAML-contracted offtaker, who collected the produce from the group's aggregation center. During the second year of production (2015), more farmers had adopted sorghum farming, but ADSE was not supportive in linking the farmers to the seed market and they (ADSE) were not available to provide the much-needed extension services during the bird invasion stage. Farmers reported aggregating the sorghum harvest, as advised by ADSE, but the buyer failed to collect the produce as promised. "We fed the produce to our chickens, and any sorghum we have planted since 2015 is a different variety for our own consumption," the farmers reported.

E. HORTICULTURE VALUE CHAIN

Shortly before the inception of KAVES, Kenyan smallholder participation in the export of fresh produce to the EU and U.K. was one of the most successful examples of how smallholder farmers created a niche in the global fresh produce market, typically dominated by large farm owners and corporations.

In 2012, one year prior to the start of the KAVES activity, an evaluation funded by USAID reported:

> "Kenyan-grown French green beans are meeting the most stringent global standards for quality and are not only a regular menu item throughout the U.K. and the EU but are actually demanded by top chefs. A decade ago there were no producers of French green beans in Kenya supplying the U.K. and EU. Today, 150,000 Kenyan smallholder farmers are successfully participating in the value chain for this and other vegetables, which meet the stringent requirements of Global GAP."[15]

In 2013, following the dramatic and abrupt decline in fresh exports, KAVES collaborated with industry actors to try to restore the credibility of Kenyan produce in the EU marketplace. The team verified KAVES leadership in this endeavor through review of project documents, as well as interviews with private sector stakeholders and government officials.

At the time, KAVES horticulture activities were not structured to respond to prevailing circumstances in the industry. An example of the change in market demand for Kenyan produce was noted in 2013, when exports of French green beans to the EU declined by 18 percent in the first quarter of 2013 compared to

15 Multi-Stakeholder Evaluation of Agriculture and Livestock Value Chain Activities in Kenya 2012

the same period in 2012.[16,17] The frequency of the failure of Kenyan produce to meet requirements led to an amendment to EU regulation 669/2009. Changes to the EU regulation led to a 10 percent increase in physical checks at designated ports of entry of Kenyan beans and peas in pods. Measures of this nature were necessary due to persistent failures to comply with maximum residue level requirements and the inability of Kenya to demonstrate systems and mechanisms to monitor and affect pesticide compliance in the supply chain.

Interview data from farmers, private sector actors and government agencies within the horticulture industry suggested that KAVES value chain interventions improved Kenya's competitiveness and trade in the international market.

National-level stakeholders that worked with KAVES include:

- The ***Horticulture Crops Directorate (HCD):*** With KAVES guidance, the HCD introduced a new requirement for all local horticultural exporters to undergo formal registration and licensure. In coordination with the private sector, KAVES assisted the government in changing the manual processes of tracking produce to an online system. This initiative spawned the National Horticulture Traceability System, which played a crucial role in regaining EU confidence in Kenyan horticultural produce.

- The ***Kenya Horticultural Council (KHC) and Kenya Bureau of Standards (KEBS)***: KAVES provided support toward the launch of the Kenya Horticulture Standard, KS 1758, Part II. This is a mandatory standard for issuance of an export license. Reports also indicate that the standards help create a level playing field and facilitate market access for fruit and vegetable exports. The standard stipulates the criteria that local and export markets must adhere to in Kenya. KAVES was also instrumental in advocating for the KHC to liaise with the Kenya Plant Health Inspectorate Services (KPHIS) to conduct laboratory checks for pesticide residues, thereby ensuring that exports comply with international standards.

By working closely with these key stakeholders, KAVES provided leadership to decrease the incidence of Kenya fresh produce rejections in the EU. According to the KAVES final report (2017 version), the number of interceptions related to excess pesticide residue decreased from 25 instances in 2013 to two in 2016. In 2017, no interceptions occurred.[18]

Additional interview data suggests that KAVES support also facilitated the private sector to increase the packing capacity of fresh produce for export, as well as improve efficiency in processing produce for domestic markets. Over the course of the project, KAVES provided four processing companies (E&A Industries, Gradale Fruit Juice Processors, Kitui Enterprise Promotion Limited and Sweet and Dried Ltd.) with technical support, as well as equipment for processing fresh fruit juice and dried fruits. For example, with KAVES-funded fruit-drying equipment, Sweet and Dried increased its processing capacity for dried mangoes by 250 percent annually. KAVES provided cold storage facilities to Ramba Food Processing cooperative for mango pulp. This effort resulted in the cooperative's reaching an additional 1,000 farmers. Another success within this group resulted from improved equipment, which provided a notable reduction in produce losses associated with poor storage and produce handling.

16 KAVES Value Chain Analysis, June 2013
17 KAVES Annual Report FY2013
18 KAVES Final Report, 2017 (Draft)

To address the issue of high pesticide levels,[19] KAVES trained farmers in GAP. In 2013, KAVES reported partnering with Kenya Horticulture Exporters Limited (KHE Ltd.) and trained 1,642 smallholder farmers on GAP in Uasin Gishu, Kisumu and Homa Bay counties to reduce pesticide residue in French beans. This occurred in conjunction with on-farm performance trials of commercial French bean varieties. Reports show that GAP training was ongoing over the project's performance period. Subcontractors in counties that the team visited indicated that they trained farmers in GAP, provided extension services and linked producers to input suppliers. Subcontractors working in the horticulture value chain also mentioned that KAVES assisted farmers to obtain the necessary certification for their formal recognition within the horticultural industry as qualified producers.

As a result, KAVES reported that in 2017, 287,767 beneficiaries produced 1,137,463 tons of horticultural produce for export, valued at USD $215 million. The development of the national horticulture traceability system which was orchestrated by KAVES was a major factor in the increased exports.

FARM PRODUCTIVITY AND MARKET ACCESS

The project's productivity component received the most intensive project inputs for two main reasons: 1) Farmers' gross margins were a proxy indicator for increased farmers' incomes and food security and 2) The success of interventions related to produce competitiveness depended to a major extent on the quality and volumes of the production. Table 4 shows the progress against the key indicators.

TABLE 4. GROSS MARGINS AND YIELDS: BASELINES, TARGETS AND ACTUALS

Value Chain	Baseline 2013*	Target 2017	Actual 2017
Dairy			
Gross Margin USD	371	906	1,243
Yield, lt/cow/day	5.46	n/a	12.6
Maize			
Gross Margin USD	302	543	420
Yield MT/Ha	1.52	n/a	2.2
Horticulture (green beans)			
N/a			
Gross Margin USD	1.178	2,976	2,429
Yield, MT/Ha	n/a	n/a	n/a

Sources: Baseline 2013, Revised MEL plan 2016, AR 2017 and Final Report 2018
Note 1: Yields were not included in the MEL plan as an indicator; however, this was an actual measure of performance in all KAVES reports and a source of comparison with the national and international data.
Note 2: The data is not fully consistent throughout the KAVES reports.

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Overall, the productivity component progress was measured by eight FTF and contract-defined indicators (MEL plan 2016), all of which are reported as overachieved by the KAVES final report. The results are evaluated in the following value chain subsections.

A. DAIRY VALUE CHAIN

According to the KAVES baseline (2013), the average milk production in the project areas per cow was 5.46 liters per day for improved breeds or hybrids, close to the national milk average productivity of 5 liters per cow, per day. The Kenya Dairy Master Plan 2010–2020 estimates the annual milk requirement to be 12.8 billion liters against a supply of 7.2 billion liters, leaving a deficit of 43.5 percent. The proposed solution for this problem was to focus on increasing animal productivity using the existing cattle population. The Kenya Dairy Master Plan states that adoption of improved animal husbandry practices has the potential to achieve an average of 20 to 30 liters per cow, per day. This translates to an increase in national milk production to an estimated 22.4 billion liters of milk per year, which would meet Kenya's domestic milk requirements with surplus milk for export. KAVES was therefore tasked to improve milk productivity for smallholder dairy farmers.

Interviewed dairy farmers and subcontractors confirmed increases in milk productivity by 50 percent to more than 100 percent. This was largely due to uptake of good feeding practices (e.g., TMR, fodder) and was also dependent on a particular breed of cow. For example, in Uasin Gishu County, a key informant involved in county livestock production indicated that dairy productivity in the county had increased from 5 liters per cow, per day to 8.5 liters per cow, per day. Sosiyo Farmers Self-Help Group in Uasin Gishu County also indicated that dairy productivity had increased from about 2 liters per cow, per day to 5 liters per cow, per day. The KAVES MEL plan achievements indicate that dairy productivity for smallholder dairy farmers supported by the activity increased from 5.46 liters per cow, per day to 12.6 liters per cow, per day (an increase of 130 percent) at the end of FY 2017. The gross margins per cow also increased by 128 percent by the end of the same period, from KES 544 to KES 1,243.

Artificial insemination (AI) was another intervention introduced to dairy farmers. Farmers reported a high occurrence of conception failure, attributed to poor services rendered by unqualified technicians. In Kitui County (SA2), farmers reported difficulties in accessing AI services due to high out-of-pocket costs (KES 2,000 plus travel costs for the AI inseminator), and some also reported use of inadequate service delivery agents. Despite these reported challenges, KAVES reported an increase in farmers' use of AI services, from 1,364 inseminations in 2013 to 177,565 in FY 2016.

The activity introduced AI to improve the quality of livestock breeds, as animal genetics is known to be a major determinant of milk productivity. KAVES worked in close collaboration with county governments and other stakeholders to support this intervention. The evaluation team found it difficult to note any changes resulting from this intervention, due to the length of time required to actualize results over the activity's period of performance. Nevertheless, farmers expressed appreciation and value for AI services they received through KAVES, with several stating that KAVES would ensure a good return on investment. However, a subset of farmers located in Kitui and Uasin Gishu counties expressed dissatisfaction with the AI services, the majority of them citing inefficiencies related to quality and availability of extension services offered in those counties. For example, in Uasin Gishu County, the activity was heavily subsidized by the county government, yet farmers complained of a high rate of conception failure, which they viewed as related to the inseminators' timing and technical capacity. In Kitui County, farmers stated that it was difficult to access AI services.

B. FODDER VALUE CHAIN

Farmers targeted by KAVES grew fodder and preserved it in bales (feed conservation technology), ensuring availability of feed throughout the year. As a result, KAVES demonstrated the economic importance of fodder to farmers. Primary data indicates that KAVES promoted silage-making (bags and pits), utilizing maize, sorghum and napier grass. The project also encouraged hay baling from various grasses, depending on the agro-ecological zone. Other fodder crops promoted were leguminous crops such as *desmodium,* sunflower, *Lucerne* and *Leucaena* species and *Calliandra*. As a result, the project achieved a high uptake of fodder mechanization technology, including fodder choppers (chaff cutters) and pulverizers. In Meru (SA2), Thima Coffee Machineries reported an increase in sales after their firm started working with KAVES to train farmers on feed conservation.

As a direct result of KAVES interventions, dairy farmers reported an increase in milk productivity (average production per cow, per day) ranging from 50 percent to over 100 percent, subject to animal genetics (breed of cow). Over the life of the project, fodder acreage increased considerably, with about 38,000 acres of fodder planted and rehabilitated by FY 2017. Selected farmer groups chose fodder crop seed production as an enterprise, with about 18,000 kg of selected fodder crops being produced by the end of the project. In Uasin Gishu County, land utilized for fodder reportedly increased by over 500 percent, from 120 acres in 2013 to 800 in 2017; despite SA2 climatic conditions there, hay production increased. Many non-livestock owners started growing fodder for sale to dairy farmers who lack pasture.

C. MAIZE AND OTHER STAPLES VALUE CHAINS

Maize is Kenya's main staple food crop, providing daily food caloric uptake to most urban and rural households. Maize is mostly consumed in the form of maize flour to make *ugali*, boiled with other products such as dry beans and vegetables to make *githeri* or *nyoyo* (a mixture of maize and beans meal), or eaten off the cob as either boiled or roasted whole "green maize." Maize accounts for nearly 20 percent of total food expenditures among the poorest urban households. Any factor that threatens maize production becomes a national food security issue (Muyanga et al. 2005).[20]

Over 92 percent of KAVES beneficiaries grow maize[21] for home consumption and as a cash crop. In spite of its diversification objective, KAVES had to provide considerable levels of technical assistance interventions to maize farmers. The range of interventions included linking farmers to the input suppliers, seed selection and the promotion of low-cost on-farm technologies.

The KAVES maize value chain analysis research recognized that labor accounted for 40 to 70 percent of the cost of production for smallholder farmers. Therefore, the project worked to promote adoption of labor-saving technologies for high-cost activities in maize production, such as land preparation, weeding and shelling, as areas in which these technologies could greatly reduce the cost of production.

Following the adoption of technology interventions, maize production per hectare (ha) increased from 1.5 metric tons (MT) in 2013 to 2.5 MT in 2017. The highest productivity was reported during FY 2015, at 3.1 MT/ha, with the decreased yields in subsequent years being attributed to the effects of below-normal rainfall and fall armyworm infestation.[22] Discussions with beneficiaries suggest that farmers the activity

20 Muyanga, M, T.S. Jayne, G. Argwings-Kodhek, & J. Ariga. 2005. "Staple food consumption patterns in urban Kenya: Trends and policy implications." Working Paper 19, Tegemeo Institute, Nairobi, Kenya.
21 KAVES Annual Report FY2016
22 KAVES Annual Report FY2017

targeted in Uasin Gishu experienced increases in maize production from 10 bags (90 kgs) to 25 bags/acre as a direct result of adopting minimum tillage, the application of fertilizers recommended by soil testing results and the use of certified seeds. Overall, the evaluation team's findings point to significant positive results experienced at the farmer level for the maize value chain, with significant improvements in production and market access.

Maize, beans, cowpeas, pigeon peas, green grams, sweet potatoes, Irish potatoes and cassava were identified as the most planted food crops in all 22 KAVES counties. These crops were also identified as the most practical and accessible sources of agricultural income; but in 2013, none of these crops increased rural household income.[23] For instance, production and quality of maize and the aforementioned staples did not meet market demand or quality.[24] KAVES was therefore tasked with improving the production systems through transfer of various technologies that would raise yields and improve quality on a national scale.

The primary intervention of KAVES — to increase yields — took place through targeted technical assistance, using demonstration sites to show the changes in total yields, following the introduction of these interventions that focus on proper crop nutrition and cost-reducing and efficiency-enhancing technologies. For instance, KAVES provided technical guidance to farmers that included pre-planting technologies such as minimum tillage, integrated soil management, seed selection technologies and crop management techniques. In Uasin Gishu County (HR1), the New Progressive Farmers' Cooperative Society, the Ainamoi Gaa Self-Help Group and the Sosiyo Farmers Self-Help Group all attributed the increase in maize production per acre to KAVES training on seed selection, the use of minimum tillage as a planting technology, conservation farming technologies and the correct fertilizer application based on soil testing. In Kitui County (SA2), the Kalia CBO reported increased green gram productivity per acre, which they attributed to KAVES training on correct seed selection and spacing. "We have now allocated more of our land to green grams instead of maize, because we are getting better output from correct green gram farming," one group member said. Maara Grains Cooperative in Meru County (SA2) also attributed their increased maize productivity and sales to a KAVES training on seed selection and fertilizer application that is informed by soil testing.

In addition, KAVES promoted the use of foliar feeds and herbicides, which a large proportion (80 percent) of beneficiaries reportedly adopted, leading to better harvests and enhanced competitiveness.[25] KAVES annual reports indicate that maize productivity increased from 1.52 MT/ha in 2013 to 2.5 MT/ha at the end of FY 2017, due to the adoption of these technologies.[26]

In 2013, on-farm storage of maize accounted for 80 percent of all harvested maize in Kenya. Post-harvest storage losses ranged between 20 and 30 percent, and reportedly occurred within six months of harvest if no intervention measures were taken.[27] Losses resulted from insects, rodents and pathogens. To address this, KAVES worked with private sector value chain actors to promote adoption of hermetic storage technology (HST). This intervention was highly successful, and results suggest that it was the most popular post-harvest technology among smallholders who received KAVES support. Discussions with farmers suggest that uptake of the hermetic bags resulted in reduced post-harvest losses. In addition, hermetic

23 KAVES Annual Report FY2013
24 KAVES Maize Value Chain Analysis, 2015
25 KAVES Annual Report FY2017
26 KAVES Annual Report FY2017
27 http://www.kalro.org/fileadmin/publications/brochuresII/Post_harvest_handling_and_protection.pdf

bags reportedly enhanced the quality of maize and other staples (e.g., green grams) for selling at local markets and for household consumption.

BOX 3. AWENDO AGROVET STORE, HOMABAY AND MIGORI

Awendo Agrovet's proprietor, John Okello, reported that after introducing HST bags in Migori and Homa Bay, he has seen an exponential growth in demand. Despite being the main distributor of these bags in the two counties, he is barely able to cope with demand: "HST bags are the fastest-moving commodity in my shop."

All producer groups interviewed in all visited counties had adopted the use of HST bags. Locally manufactured grain silos were not as widely adopted as hermetic bags due to high initial investment (KES 25,000). Nevertheless, this also reportedly was effective in providing a first-level aggregation storage facility. By the end of FY 2017, 1.7 million HST bags had been sold country-wide. Interview data suggests that the joint collaborative effort from KAVES, media companies and private sector manufacturers and distributors helped galvanize popular use of this technology among smallholder farmers.[28] Interviews with county government officials in Migori, Nandi and Uasin Gishu further support this view, citing that the overarching success of the KAVES activity was the introduction of the HST bags.

D. HORTICULTURE VALUE CHAIN

Besides improving the quality of produce to meet international market requirements, training targeting farmers also improved farm household productivity. At the end of the activity,[29] 287,767 beneficiaries (44 percent of total KAVES beneficiaries engaged in horticulture production for income) produced 1,137,463 MT of horticultural produce valued at USD $215 million. KAVES beneficiaries had incremental sales of horticultural produce of USD $189 million. The average gross margin for French beans for FY 2017 stood at USD $2,429 per hectare, compared to USD $1,265 per hectare at baseline. Findings in this report were supported by interview data. The Loiri farmers group that supplies Veg Pro, a fresh produce exporter/subcontractor of KAVES working with farmers in Meru, Trans Nzoia and Bungoma counties, reported a production increase from 1 ton to 6 tons per week following engagement with KAVES/Veg Pro.

Production of fruits and vegetables among KAVES beneficiaries reportedly increased from 697,344 MT in 2015[30,31] to 1,137,463 MT in 2017.[32] To increase productivity, farmers received support to ensure that they produced the quantity and quality required in both the local and international markets. Subcontractors indicated that they trained farmers in GAP, provided extension services and linked them to input suppliers. In a discussion with a farmer group, Meru Herbs, which started working with subcontractor Kilimo Biashara in 2016, respondents reported that this group received training in yellow passion fruit farming and in land preparation and planting, including spacing and pest and disease control and harvesting.

Farmers also reported that KAVES encouraged them to grow new crops. In the high-rainfall regions of Migori and Siaya, KAVES introduced French bean farming. The project also introduced yellow passion fruit in many of its zones of influence. While the volume of yellow passion fruit produced by some farmers the

28 KAVES Annual Report FY2017
29 KAVES Annual Report FY2017
30 Total produce volume of KAVES beneficiaries first reported in 2015
31 KAVES Annual Report FY2015
32 KAVES Annual Report FY2017

team spoke to in Kitui and Meru (Meru Herbs) was not sufficient for export, the fruit was absorbed by the local market. Subcontractors held the view that low production was likely to be due to slow uptake of yellow passion fruit farming.

BOX 4. CAROLINA FRESH

Carolina Fresh, a successful KAVES exporter/subcontractor (2014–2017), exports French beans and yellow passion fruit. Carolina Fresh targets women (approximately 60 percent) and youth (approximately 20 percent). According to the Carolina Fresh interviewee, youth are attracted to horticulture due to quick cash, unlike other value chains.

Subcontractor Kilimo Biashara introduced tissue banana culture, yellow passion fruit and Irish potatoes. For the farmers who took up tissue banana culture, Kilimo Biashara did soil testing and pathological analysis and identified and acquired culture from a certified supplier.

A key driver to increased production was market linkages created under KAVES. Subcontractors mentioned having developed contracts with farmers of French beans and passion fruit who presented market or fixed prices. This was a big motivator for production, as farmers were assured of markets.

Support to other value chain actors created demand for farmer produce, increasing productivity. To be able to absorb increased produce, processors and exporters received support in the form of equipment, such as storage facilities and pasteurizers to minimize post-harvest losses. One subcontractor received solar dryers, air dryers, sinks and tables and was able to increase their processing capacity from 2 tons to 5 tons of dried mangoes for the entire December to April season.

BOX 5. E&A INDUSTRIES (RAMBA FRUIT PROCESSORS)

KAVES support to E&A Industries and farmer members of Ramba Fruit Processors to increase produce has enabled the company to improve women's livelihoods.

This woman-owned company packages water and juices, mainly mangoes and yellow passion fruit. It started working with KAVES during the last two years of the project. E&A's managing director chose to employ women, most of them widows. During peak season, the owner can employ about 30 women.

The cold storage purchased with the support of KAVES increases the processor's capacity to receive more produce.

According to published reports, most equipment-related processor support occurred during the final months of the project, including equipment sent to Sweet and Dried, Ramba Food Processing and Gradale.

A key gap in the horticulture value chain was transportation support for smaller processors and aggregators. The evaluation team noted that smaller agro-traders depended on independent transporters, while larger and more mature firms owned vehicles for transportation of produce. Discussions with Transu, an established aggregator working in multiple value chains, revealed that having trader-owned transport helped control costs, while also ensuring that produce would remain fresh.

BOX 6. SWEET AND DRIED

Sweet and Dried, a woman-owned company that launched in 2009, is primarily involved with drying mangoes. The company is located in a region where the incidence of female genital mutilation (FGM) is high. Girls who have gone through FGM, usually in their pre-teens or early teens, are considered to be ready for marriage and therefore do not continue their education. For this reason, illiteracy is high among girls, disempowering them so that they are not able to get meaningful employment. Further, the region has a high incidence of alcoholism among men, who in turn are not able to provide for their families.

The directors of Sweet and Dried chose to have a workforce that is 90 percent women to provide them with a source of livelihood and lift them out of poverty. Support to Sweet and Dried ensures that these women have gainful employment. The company is now able to employ even more women and they can process more mangoes.

With a truck capable of transporting only 500 kilograms, transport is a challenge for this firm. Increased processing capacity will increase income, allowing for an investment in a suitable truck.

Most farmers reported receiving KAVES support for new technologies. The most prominent and useful technologies introduced to horticulture farmers were solar pumps and cost-effective irrigation methods such as drip irrigation. Farmers stated that this was particularly useful, as horticulture is water-intensive and the technology allows farms to produce year-round. Further, farmers were introduced to water conservation methods and technologies such as mulching, water bottle drip watering and Belsap polymer and knapsack pumps. Farmers were also introduced to new and better seed and seedling varieties, such as tissue culture bananas and grafted passion fruit.

NUTRITION-RELATED BEHAVIORS AND ACCESS TO DIVERSE AND QUALITY FOOD

The Nutrition Component was measured by three FTF nutrition indicators and one water, sanitation and hygiene (WASH) indicator, as Table 5 shows:

TABLE 5. NUTRITION AND WASH INDICATORS

Indicator Description	Baseline 2013*	Target 2017	Actual 2017
Number of people trained in child health and nutrition through USG-supported health area programs	0	350,000	344,085
Number of children under 5 reached by USG-supported nutrition programs	0	350,000	299,015
Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age	4.5	6.6	5.23
Number of people in target areas with access to improved drinking water supply	63%	50,000*	148,835

Source: Baseline 2013, MEL plan 2016 and Annual Report 2017
*Only targeted communities with drinking water shortages: Busia, Machakos and Tharaka Nithi

The goal of KAVES was to enhance food security and improve nutrition by increasing incomes of farm families, and improving nutritional behaviors, especially of women. KAVES was one of the first program models to integrate agriculture and nutrition on a large scale. In theory, the activity aimed to use behavior change communication (BCC) approaches at the community level and trainings on agri-nutrition in cooperating aspects of infant and young child feeding and essential hygiene actions (EHA) to improve the nutritional status of children under age 5 years (Fintrac, 2014).

In determining the extent to which KAVES achieved the intended goals and objectives, the findings of the evaluation team can be divided into the subtopics that follow.

INTEGRATION OF NUTRITION INTERVENTIONS INTO AGRICULTURE INTERVENTIONS

KAVES did not comprehensively meet its objective of integrating nutrition within the target agricultural value chains, as envisioned in the activity design. After its launch in 2013, KAVES first focused on agricultural aspects and postponed its nutrition component. Interventions related to nutrition were first rolled out in SA2 counties. Interviews with subcontractors suggest that there was no clear approach on how to reach target communities for nutrition. This resulted in non-KAVES communities receiving nutrition interventions, as seen in Meru County, for example. This led to confusion among beneficiaries at the community and county levels, as the nutrition-focused interventions did not appear to be integrated with the value chain interventions. Respondents assumed that interventions, while USAID-funded, were from two separate activities.

> *"KAVES was not implementing nutrition, our women sometimes benefit from health talks when they visit health facilities when the children are sick."*
>
> *Chairman, Kirethini Water Project, Tharaka Nithi*

In 2015, KAVES rolled out nutrition interventions in HR1 counties. Annual reports indicate that nutrition targets in these areas were lagging. To achieve the project targets, subcontractors with no previous experience in supporting nutrition-focused activities were tasked to deliver interventions as an add-on to their SOWs. This resulted in both positive and negative results across the 22 counties. In SA2, two of three subcontractors supporting nutrition interventions reported that the nutrition training for subcontractors took place just once and was not sufficient to impart enough knowledge for the subcontractors to be effective community nutrition educators/trainers.

Only one subcontractor in HR1 had experience integrating nutrition and agriculture activities.

BOX 7. EXAMPLE OF SUBCONTRACTORS EXCELLING IN INTEGRATION

Subcontractor Animal Draft Power Program (ADPP), covering Homa Bay and Migori, had noticeably better implementation of the KAVES activity. The following were noted as initiatives that led to their success:

1. ADPP hired a fully certified nutrition staff to support the implementation of the nutrition component. This staff was responsible for training all of the organization's staff on agri-nutrition modules provided by USAID, as well as maintaining relations with the county-level staff to support them in community-level trainings. This was an effective sustainability mechanism, as evidenced by continuing nutrition education at the community level by community health volunteers (CHVs) during the evaluation period.
2. Apart from the one-time training for subcontractors carried out by the contractor and the main subcontractor for nutrition, African Medical and Research Foundation (AMREF), ADPP had its 11 agronomists trained regularly on agri-nutrition modules, hence providing continuous capacity building.
3. Apart from using mother support groups (MSGs), ADPP ensured that all of the trainings at the community level had modules for nutrition covered.

DIVERSIFICATION OF DIETS

Women's Dietary Diversity

Although women's dietary diversity reportedly improved (from 4.3 in 2013 to 4.9 to in 2017), not much evidence linked this improvement to KAVES interventions. Primary data suggests that improvements in Meru and Nandi counties were attributed to ongoing trainings supported by the Ministry of Health. Most farmer groups were not trained in nutrition. Of 22 visited farmer groups, only eight reported receiving training on nutrition. According to the interviewees, the trainings took place only once and covered a wide range of topics. MSGs were formed as an approach to foster a learning environment for mothers with children under age 5 years. Reports state that these groups dissolved shortly after registration due to lack of follow-up[33] (CHV and KII).

During the interviews, subcontractors expressed that they missed an opportunity to work with county health management teams (CHMTs). In their view, a CHMT would have been able to support nutrition trainings at the community level. Interviews with nutritionists, public health officers and CHVs suggest that KAVES did not support any nutrition trainings or follow-ups (nutritionist, CHV and public health officer interviews). Nutrition officers in SA2 and HR1 counties reported that KAVES nutrition trainings included information on nutrition only, without addressing behavior change. This was cited as a challenge in the effectiveness of the project, as human behavior is complex and it generally takes a combination of influences to trigger a person to test, adopt and ultimately internalize and sustain improved behaviors in nutrition.

Review of the KAVES strategy documents indicates that the project intended to employ PD Hearth,[34] a BCC approach, to drive its nutrition programming. Interestingly, interviews with subcontractors,

33 This information was gathered from key informant interviews with community health volunteers, public health officers and government nutritionists interviewed at the ZOI.

34 PD/Hearth is a well-established methodology for sustainably reducing malnutrition in young children using community wisdom. It is one of World Vision's core project models in nutrition. For more information, visit: https://www.wvi.org/nutrition/project-models/positive-deviancehearth.

government officials and community members indicate that none of these groups received any formal training on BCC and were not familiar with the PD Hearth approach.

CHVs expressed that trainings were too short and not comprehensive. Subcontractors serving HR1 and SA2 said nutrition trainings for the staff were not sufficient to build their capacity to train the communities, as noted during interviews with Kilimo Biashara, Carolina and CGA. In HR1 subcontractors included aspects of nutrition in training, reporting that they were trained in nutrition.

GENDER INCLUSION AND CONSIDERATIONS IN NUTRITION TRAININGS

Men and women have different yet complementary roles and responsibilities in securing the nutritional well-being of all members of the community in the African setting. Women often carry out meal preparation, provide childcare and work as laborers on farms. In contrast, men are the decision-makers on how resources (financial and other) are utilized at the household level, and this includes land use. The issue of role differentiation came out strongly in discussions with beneficiaries in SA2 and HR1. Gender inclusion in nutrition trainings was viewed to be a challenge, as most nutrition trainings targeted women. This view was expressed by women interviewed in SA2 and HR1. These issues (role differentiation at the household level) were not taken into consideration.

Nutritional Status for Children Under 5 Years

As indicated earlier in this section, KAVES did not successfully implement nutrition-focused interventions over the period of performance. As a result, it would be difficult to attribute any changes in nutritional status (i.e., reductions in underweight and stunting) to the activity.

The evaluation sought to assess the nutrition status of children under age 5 in the 22 KAVES counties. Kenya Demographic and Health Survey (2014) data shows national estimates for underweight, malnutrition (stunting) and wasting to be 11 percent, 22 percent and 4 percent[35] respectively.

Baseline survey data from the project on the nutrition status of children under 5 in Machakos, Makueni, Kitui, Meru, Tharaka Nithi and Taita Taveta (SA2 regions) found an estimated 37 percent suffering from chronic malnutrition (stunting), 4.6 percent were wasted and 14 percent were underweight. The rate of stunting (defined as low height for age) in SA2 is classified as high.[36] Despite capturing this baseline data, no nutrition-focused interventions were implemented over the project period, making it impossible to document the contribution that KAVES made to the change in the nutritional status of children under 5 across the target counties. Review of the activity MEL plan also established that no indicator was assigned to monitor changes in the nutritional status of children under 5.[37] The evaluation team did not employ use of the middle-upper arm circumference (MUAC) approach to measure each of the key indicators of undernutrition, as no comparable data was collected over the life of the project. In addition, the MEL plan did not have an indicator to track changes among pregnant women and mothers with links to BCC interventions. Therefore, it was difficult for this evaluation to examine any positive behavioral change among this cohort.[38]

35 Kenya Demographic Health Survey 2014
36 World Health Organization, 1997
37 KAVES annual work plans, MEL plan 2013, revised MEL plan 2016
38 Evidence: KII county nutrition coordinator in Meru, community strategy focal person in Meru, nutritionist in Nandi, public health officer in Nandi.

IMPROVED HYGIENE AND SANITATION PRACTICES

The KAVES activity contributed to the improvement in the hygiene and sanitation practices in the ZOI. Public health departments supported the choice of community-led total sanitation (CLTS) as an approach to improve sanitation in a subset of counties (Nandi, Siaya and Tharaka Nithi). Interestingly, public health officers lauded use of the CLTS approach, despite having limited resources to support implementation. The public health officer in Tharaka Nithi reportedly received support to trigger open defecation-free (ODF) in 100 villages (20 per subcounty). Community members from Tharaka Nithi also reportedly received training on hygiene and sanitation.[39]

There was evidence of *tippy taps* (hand-washing stations) distributed to the communities, observed in Tharaka Nithi and Siaya counties. Communities in these counties had also been targeted with intensive messaging in hygiene and sanitation. The goal was to reduce the incidence of childhood illness, with emphasis on reducing the occurrence of diarrheal disease. A 2017 report states that changes in the availability of hand-washing stations were introduced at the household level. The proportion of households that had hand-washing stations with soap was 9 percent, which has increased to 36 percent; and those with hand-washing stations without soap increased from 0 to 27 percent. However, public health officers also reported that the installation of hand-washing stations was limited to small areas. In the two counties with intensive hygiene and sanitation messaging, government public health officers confirmed that they were still engaged with KAVES and supporting sanitation activities at the time of evaluation.

MISSED OPPORTUNITIES FOR NUTRITION PROGRAMMING

In 2015, KAVES leadership attempted to streamline agriculture and nutrition interventions during the second half of the activity. Changes noted included nutrition-focused interventions in HR1 and change in the overall implementation design to support nutrition activities in SA2. This evaluation has identified key resources that USAID and KAVES did not utilize. This was viewed to be a missed opportunity for the activity, with little use of the following resources from existing FTF projects and their predecessors:

- The USAID FTF nutrition lab in Uganda — with the mission "to discover how integrated interventions of agriculture, nutrition and health can achieve large-scale improvements in maternal and child nutrition in Asia and Africa and enhance institutional and human research capacity around agriculture, health and nutrition in Africa and Asia through graduate-level training (M.S. and Ph.D.) and support for short courses and conferences" — has numerous reports offering practical experience relative to the integration of agriculture and nutrition across the globe. There was no mention of these resources in the KII with KAVES staff.
- The FTF Nutrition lab offers expertise and hands-on training (following the example of USAID missions in Malawi and Tanzania).
- The FTF report on leveraging agriculture for nutritional impact through FTF's landscape analysis of activities across 19 focus countries was specifically intended to target the circumstances KAVES was dealing with during the second half of the activity.

39 Migori, Kuria East, CHV FGD in Siaya, KII Public Health Officer Nandi East Sub-County

- The USAID Development Experience Clearinghouse (DEC) was easily accessible and provided a means to retrieve all reports, including those noted above. The KAVES nutrition staff could have accessed this resource at any time, but this was not noted in interviews or documents.

LOCAL ORGANIZATION SUSTAINABILITY

The KAVES SOW described this component as: "*Activities to build sustainable local organizations (including public sector agencies, non-governmental organizations (NGOs), civil society organizations, private sector entities, trade and professional associations, including producer associations) that are currently capable of, or will be strengthened to receive direct USAID funding to undertake agricultural value chain activities in Kenya*." The KAVES MEL plan took a broader approach to sustainability, which included sustainable technological operations and climate resilience, as well as individual skills and resources and the institutional sustainability of partner organizations, as demonstrated by selected MEL plan indicators in Table 6.

TABLE 6. GROSS MARGINS AND YIELDS: BASELINES, TARGETS AND ACTUALS

Indicator Description	Baseline 2013*	Target 2017	Actual 2017
Number of food security private enterprises (for profit), producer organizations, water users' associations, women's groups, trade and business associations, and CBOs receiving USG assistance	0	11,300	17,595
Number of micro, small and medium enterprises (MSMEs), including farmers, receiving business development services from USG-assisted sources	0	350,000	339,032
Number of people implementing risk-reducing practices/actions to improve resilience to climate change as a result of USG assistance	0	250,000	250,000
Score, in percent, of combined key areas of organizational capacity among USG direct and indirect local IPs	58 (2015)	80	80
Number of public-private partnerships formed as a result of FTF assistance	0	25	26
Number of people with a savings account or insurance policy as a result of USG assistance	0	137,500	151,476

Sources: MEL plan 2013, Revised MEL plan 2016, Annual Report 2017 and Final Report 2018

It was difficult to reconcile the breakdown of the 17,595 local organizations supported by KAVES as presented in the 2017 report with the numbers of MSMEs, business associations and partner companies reported by KAVES elsewhere:

TABLE 7. TYPES OF MSMES SUPPORTED BY KAVES

Type of MSME	Number of MSMEs
Private Enterprises	1
Producer Associations	12,399
Youth Groups	991
Cooperatives	261
Traders and Businesses	-
Water Users Associations	81
Women's Groups	2,771
TOTAL	17,595

The numbers of officially registered partner organizations also vary in various final reports. The evaluation carried out a survey of a sample of organizations supported by KAVES to evaluate the type of institutional capacity strengthening support provided and capture the sustainability potential. Table 8 provides an overview of the type and legal status of the organizations surveyed.

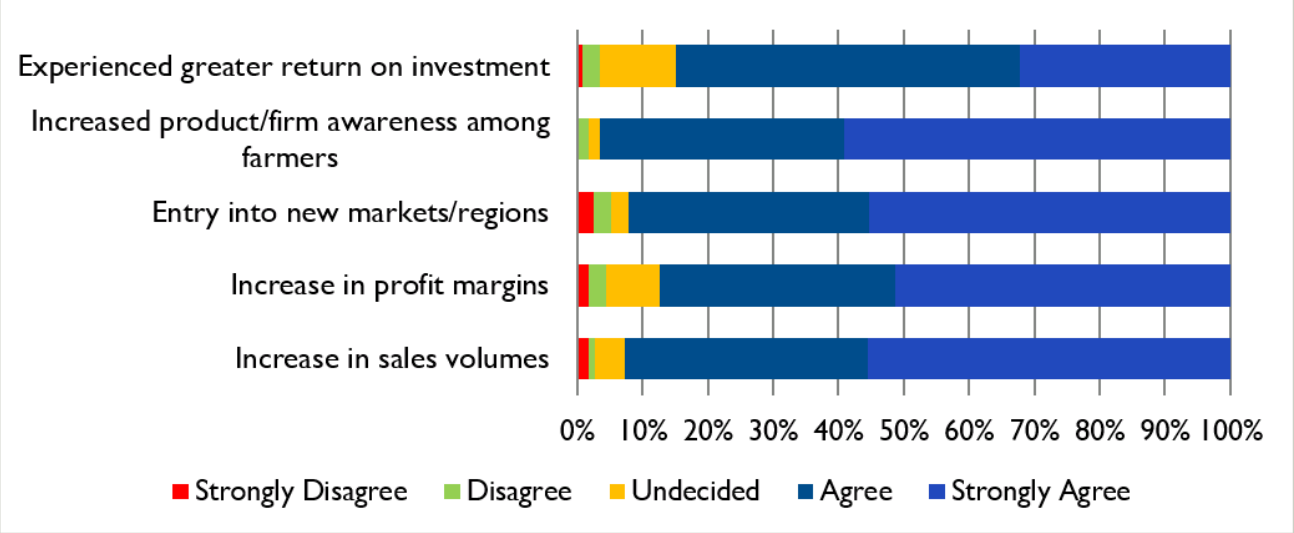
TABLE 8. TYPE AND LEGAL STATUS OF ORGANIZATIONS SURVEYED

Type of Business	Limited Company	Sole Proprietorship	Partnership	NGO	Farmers Association	CBO	Government Institution	Cooperative Society	Total
Total	**92**	**10**	**6**	**6**	**4**	**3**	**3**	**2**	**126**
Input supplier	46	5	1				1		53
Subcontractor	12	1		5	4			2	24
Processor	15	2	1	1		2			21
Agro-technology supplier	17	1		3					21

Type of Business	Limited Company	Sole Proprietorshi	Partnership	NGO	Farmers Association	CBO	Government Institution	Cooperative Society	Total
Agricultural extension services	7	1	1	1	2	1			13
Aggregator	3		2					1	6
Exporter	5		1						6
Financial services provider	1		1				1		3

The survey demonstrated that 77 percent of interviewees received help in establishing linkages to farmers, 40 percent received capacity building support, 37 percent received financial support, 27 percent received linkages to value chain actors, 13 percent attended field training fairs and 24 percent received other organizational and technical support. (Some interviewees reported receiving more than one type of support.) Most surveyed organizations reported satisfaction with KAVES support, citing improved operations as an indication of potential sustainability (see Figure 1).

FIGURE 1. RESULTS FROM KAVES SUPPORT TO PARTNER ORGANIZATIONS & BUSINESSES



The survey responses indicate that the organizations' capacity has been strengthened and potential for sustainable operations after KAVES ends is good.

SUSTAINABILITY OF EXTENSION SERVICES

According to the activity's SOW, "KAVES will train extension agents in its hands-on, field-based extension model where actual farmers are utilized as lead demonstrators for groups of 10 to 20 farmers, with

minimum weekly visits that include direct technical assistance and group trainings (in agronomy, business skills, household nutrition and other related technical areas)."

Interviews with producers indicated little to no evidence of the above mandate having been fulfilled. Based on results from the internal KAVES statistical reports,[40] only 4 percent of a reported 587,280 beneficiaries had three or more direct interactions with the project. The majority (76 percent) of farmer beneficiaries only had one interaction with the KAVES project. Interviews with implementing subcontractors as well as discussions with producer focus groups largely corroborated these statistics.

Based on field observations and interviews, local subcontractors drawn from the private sector experienced greater success in being able to reach farmers. This was particularly the case for subcontractors who relied exclusively on KAVES beneficiaries for produce and resulted in much more frequent contact with producer groups. For example, subcontractors Veg Pro and Carolina Fresh Produce were actively engaged in the export of horticultural produce to the EU. These two companies instructed their field staff to meet with producer groups at least once per week. Another example was fruit processor E&A, which reportedly met with the members of Ramba Cooperative regularly to coordinate raw product production. KAVES initially began working with Meru Dairy on improving milk quality, with focus on reducing aflatoxin levels. Because of this interaction, this firm learned from KAVES the value of investing in extension staff to work with the cooperative members supplying Meru.

KAVES experienced challenges in identifying and selecting exporters with proven expertise in institutional capacity building for producer groups to serve as activity subcontractors. Ideally, KAVES sought to engage subcontractors who were also experienced in leveraging donor support to facilitate growth of export markets and sales. KAVES interventions on institutional capacity building focused on aiding local organizations and businesses to improve internal management practices, administrative functions and financial systems. During the final year of the activity, subcontractors such as Carolina Fresh and Veg Pro exhibited the correct balance of skills to result in successful sustainable producer groups, as well as a growing international market base.[41]

FTF GOAL AND IMPACT LEVEL

The USAID/ KEA FTF goal is to "sustainably reduce poverty and hunger in Kenya."[1] FTF measures impact at a ZOI level using surveys rather than requiring individual activities to measure impact. However, changes found at the ZOI level can't be attributed to any one individual activity.

The original KAVES MEL plan did not include measurements of income or any proxy for income such as expenditure. In 2016 KAVES introduced an expenditure measure into its annual household survey in order to address this gap in data. FTF guidance supports this approach, with expenditure data capturing volumes and value of food and non-food items that households consumed.[2] In lieu of baseline data, KAVES utilized expenditure data drawn from the 2013 Kenya National Bureau of Statistics (KNBS) SID survey, which

40 Annex 5

41 KAVES Annual Report FY2017

[1] FTF Multi-Year Strategy Kenya 2011–2015

[2] FTF Indicator Handbook, 2011. "*Measurement is based on the value of average daily consumption expenditure per person, where food and other items that a household consumes out of its own production are counted as if the household purchased those items at market prices.*"

covered all 22 KAVES counties. In 2016 and 2017, KAVES measured expenditure in its annual panel survey, planning to compare with the SID 2013 data.

The 2017 KAVES annual report purports a reduction in poverty among KAVES beneficiaries, based on its comparison of 2016 and 2017 panel survey data to 2013 SID data. However, the evaluation team noted serious methodological flaws with this claim. For example, approximately 75% of the original panel survey population changed from 2016 to 2017. The 2017 report does not present population figures that were used to make inferences. In addition, comparing panel data with SID survey data glosses over differences in sampling and methodology. While the evaluation team appreciates KAVES' attempt to overcome the data gaps at baseline, the solution was not found to be methodologically sound.

FOOD SECURITY AND NUTRITION INDICATORS

The evaluation team found that the 2013 KAVES baseline established some nutrition indicators but no food security indicators. Nutrition indicators were only included from 2015 onwards.

Review of the KAVES baseline report, shows that the activity did not monitor or report performance against the "hunger" indicator, reported to be 12 percent (moderate) at baseline. However, the FTF ZOI interim assessment estimated a hunger prevalence of 13.5 percent in 2013 and 14 percent in 2015 (17 percent and 24 percent respectively for women). The hunger indicator was not included in the KAVES MEL plan, in spite of the SOW requirement: "Aggressive targets will be set and met for inclusion of extreme poor households as direct program beneficiaries."

It is important to note that the KAVES MEL plan set out to measure improved nutrition guided by three FTF indicators. Progress is discussed under Component 3: Nutrition section. The evaluation team found that the Objective 2 indicator, "Prevalence of wasted children under 5 years of age," was not established at baseline. The evaluation team also noted that the FTF ZOI Interim Assessments, carried out in 2013 and 2015, estimated an increase in prevalence of wasted children from 5.05 percent to 9.69 percent, respectively.

PERFORMANCE AGAINST HOUSEHOLD TARGETS

As of the 2013 MEL plan, KAVES had a target of 500,000 rural households benefiting directly from USG assistance. By 2016, this target increased to 565,000 for the 22 FTF counties. According to the KAVES final report in 2018,[42] the project exceeded the target and had reached 587,280 beneficiaries between January 2013 and December 2017. The definition of a beneficiary in this project is provided in the initial 2013 MEL plan (and summarized in the text box).

42 http://pdf.usaid.gov/pdf_docs/pa00ssx7.pdf

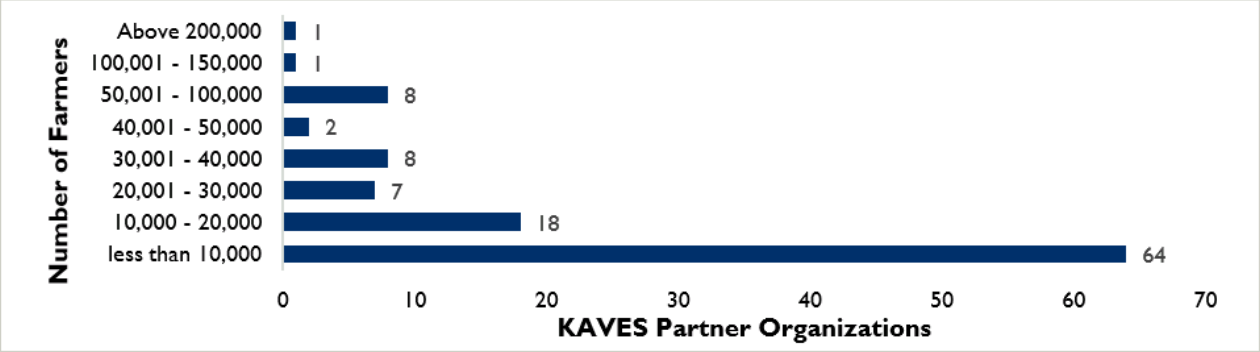
BOX 8. DEFINITION OF 'BENEFICIARY'

A household is a beneficiary if it contains at least one individual who is a beneficiary. An individual is a beneficiary if s/he is engaged with a project activity or s/he comes into direct contact with the set of interventions (goods or services) provided by the project. Individuals merely contacted or involved in an activity through brief attendance (non-recurring participation) do not count as beneficiaries. Beneficiaries include the households of people who receive the goods and services of an IP or participate in training, in which "training" is defined as individuals to whom knowledge or skills have been imparted through interactions that are intentional, structured and purposed for imparting knowledge or skills. The definition of "rural" should be the definition used by the Kenya National Bureau of Statistics. This indicator can include vulnerable households if they are in rural areas.

Source: KAVES MEL plan 2013

Qualitative interviews and survey data from the 109 local organizations surveyed by KSP indirectly confirmed the scale of the project in terms of numbers of beneficiaries, as Figure 2 shows.

FIGURE 2. NUMBER OF FARMERS REACHED BY KAVES (2013-2017)



The survey also showed that partner organizations across the KAVES counties received adequate support. However, the depth of the KAVES intervention is questionable. According to the data presented in the December 2017 KAVES report, 76 percent of beneficiaries were involved in only one project activity;[43] 16 percent in two activities; and 8 percent in three or more activities (see Table 9).

TABLE 9. NUMBER OF ACTIVITIES THAT BENEFICIARIES PARTICIPATED IN OVER THE LIFE OF THE PROJECT

County	# of Beneficiaries	Number of Activities					
		1	2	3	4	5	6
Bomet	29,129	67%	25%	5%	2%	1%	1%

43 Project reports and KIIs used the words "activity" and "interactions" intermittently, both defined as "formal trainings" and "farm visits after the trainings," e.g., communication with the chief of party (COP), 1/10/18, where the COP also confirmed that "the beneficiaries were counted by collecting names at formal training events and then made an assumption that farmers who *attended a minimum number are classified as 'beneficiaries'."* This is in line with the KAVES MEL plan definition of the beneficiaries that requires "direct contact" with the project.

County	# of Beneficiaries	Number of Activities					
		1	2	3	4	5	6
Bungoma	43,184	73%	15%	6%	2%	2%	2%
Busia	28,585	72%	18%	5%	2%	1%	2%
Elgeyo Marakwet	17,532	69%	22%	5%	2%	1%	1%
Homa Bay	19,144	81%	12%	4%	1%	1%	1%
Kakamega	29,598	79%	14%	4%	1%	1%	1%
Kericho	21,010	82%	14%	3%	1%	0%	0%
Kisii	27,895	83%	11%	3%	1%	1%	1%
Kisumu	35,356	83%	12%	3%	1%	1%	1%
Kitui	22,177	73%	19%	4%	2%	1%	1%
Machakos	27,540	77%	14%	4%	2%	1%	2%
Makueni	24,999	77%	15%	4%	2%	1%	1%
Meru	42,283	72%	18%	6%	2%	1%	1%
Migori	27,976	75%	15%	5%	2%	1%	2%
Nandi	21,188	75%	18%	4%	1%	1%	1%
Nyamira	16,524	80%	14%	3%	1%	1%	1%
Siaya	25,139	73%	18%	5%	2%	1%	1%
Taita-Taveta	25,838	57%	27%	7%	4%	2%	3%
Tharaka Nithi	19,508	79%	13%	4%	2%	1%	1%
Trans-Nzoia	30,227	71%	18%	6%	2%	1%	2%
Uasin Gishu	29,035	79%	16%	3%	1%	1%	1%
Vihiga	23,413	80%	14%	4%	1%	1%	1%
Grand Total	587,280	76%	16%	4%	2%	1%	1%

Source: KAVES data received in December 2017

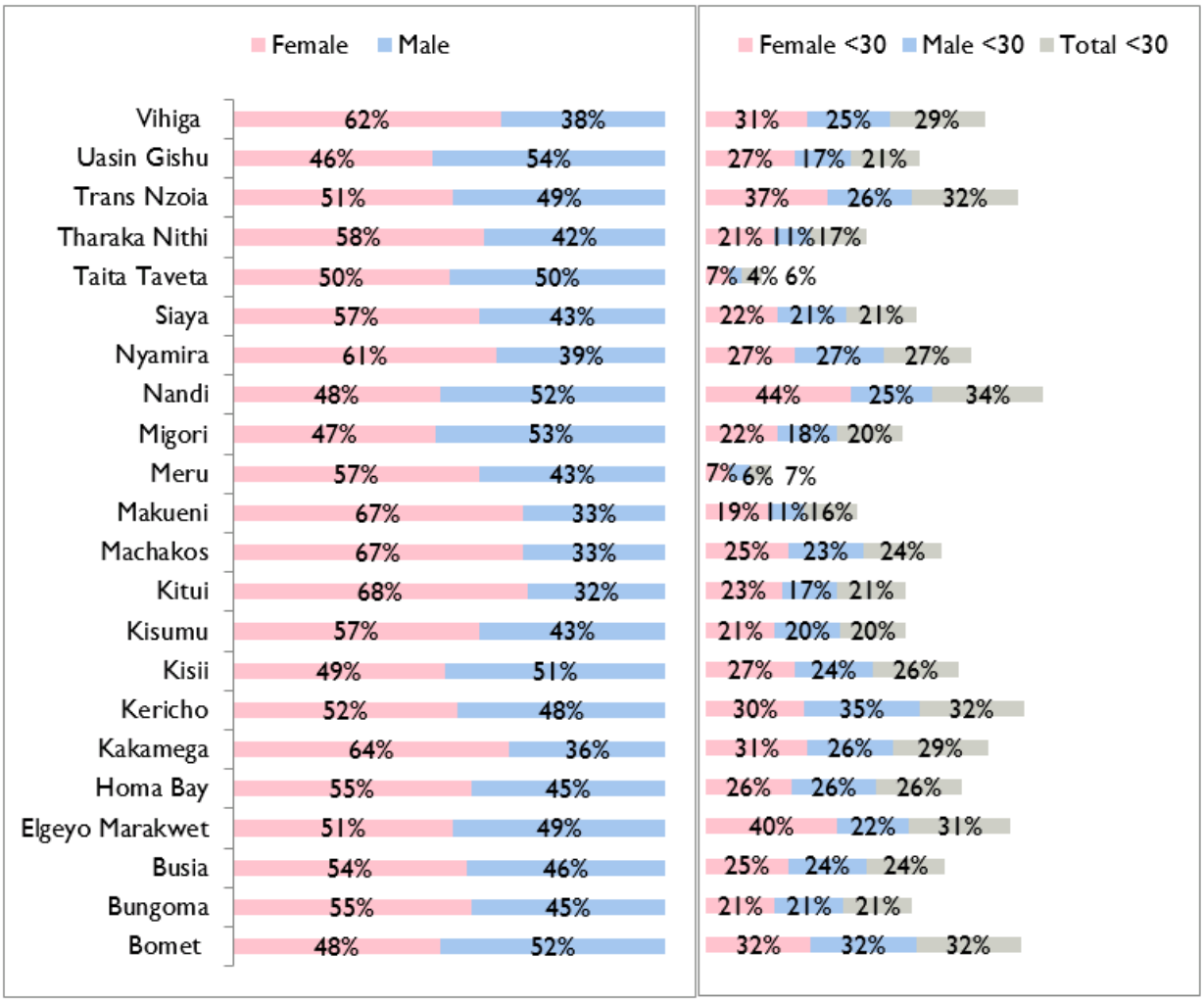
The numeric data presented in Table 9 was partially explained by interview data that suggest that KAVES made a concerted effort to engage subcontractors tasked to disseminate best practices in farmer communities. While the project may have come into contact on more than one occasion with farmers as a follow-up to the initial activity, there is no evidence of the frequency or quality of contact (i.e. records and other physical documentation). Qualitative interview data points to inconsistencies and gaps in the subcontractor records.

When queried on the lack of frequency in contact with produce groups, subcontractors stated that they were required to meet with beneficiaries only once to satisfy contractual requirements. Interview data also suggest that an underlying factor that may have influenced frequency of contact with beneficiaries was the requirement for compensation as issued to subcontractors. Moreover, reports suggest far more emphasis placed on providing evidence of reaching farmer groups (by collating lists of beneficiary names and identification numbers) as opposed to providing in-person support, as the SOW specified.

It was also not possible to establish with any level of confidence that panel survey respondents were representative of project beneficiaries. This casts doubt on the validity and extrapolation of the survey findings to the whole beneficiary population, which other sections of this report will discuss in more detail.

Of 587,280 total beneficiaries recorded by KAVES in the final report, 55 percent were women and 45 percent were men. Approximately 24 percent and 21 percent were female and male youth under 30 years, respectively, as Figure 3 shows.

FIGURE 3. KAVES BENEFICIARIES BY COUNTY



PROGRAMMING COVERAGE AND INTENSITY

What was the effectiveness of proportion of the components (competitiveness, productivity, nutrition, sustainable local organizations) in achieving the goals and optimal breakdown moving forward?

Component 1: Improved Competitiveness and Trade (relates to Objective 1 and comprises approximately 30 percent of total effort).

Except in a few cases, the evaluation findings point to increased competitiveness and trade in the staples and horticulture value chains. Dairy products meet the primary demand of food security, but as consumers become more sophisticated and demand more in the quality of milk and other dairy products available in the market, the competitiveness of the dairy value chain will need to be re-evaluated to improve both competitiveness and trade.

The 30 percent of total activity effort was adequate to achieve the objective of increasing the competitiveness and trade in selected agricultural value chains to augment incomes, mitigate food insecurity, improve nutrition and raise the incomes of the rural poor.

Component 2: Increased Farm Household Productivity and Market Access (relates to Objective 1 and comprises approximately 40 percent of total effort).

The KAVES activity achieved increased productivity in all of the value chains, and remarkable results occurred when farmers ventured into value chains that were not the primary enterprises in their zones, particularly the dairy and horticulture value chains in the SA2 regions of Makueni, Kitui and Tharaka Nithi and the HR1 regions of Migori, Homa Bay, Kisumu and Siaya. The recurrence of "lack of market access" as a challenge facing sorghum and horticulture farmers in the SA2 regions, and the markedly lower milk prices paid to dairy farmers by cooperatives compared to informal traders, point to a market access gap that could be corrected by allocating a larger proportion of total effort to fill this gap.

Component 3: Improved Nutrition-Related Behaviors and Improved Access to Diverse and Quality Food (relates to Objective 2 and comprises 15 percent of total effort).

The evaluation team's findings on nutrition indicate that activities were not implemented as planned and consequently failed to achieve the envisioned results. This was due to programmatic challenges related to integrating nutrition in food security activities, not to funding allocations. The budget allocation for nutrition was adequate to implement the nutrition activities, if done through the provision of training using existing manuals. Nutrition activities are also well-articulated in government departments and devolved at the county level.

Component 4: Building Sustainable Local Organizations (relates to Objective 3 and comprises approximately 15 percent of total effort).

By the IP's own admission in its 2014 annual report, the capacity gap among local subcontractors was bigger than anticipated at the start of the activity. The wide geographic coverage and number of beneficiaries targeted by KAVES compounded this challenge significantly. The evaluation team, for instance, interviewed a subcontractor staff member in Nandi County who had no access to basic transportation, despite overseeing a county that spans 2,884 km². This subcontractor was working with maize value chain farmers, and the team's interviews with maize producer groups revealed that interactions with KAVES were minimal, likely due to inadequate capacity of the subcontractor. The funding allocation was not

adequate because many functions up and down the value chains (e.g., aggregation and collection centers, growth intermediary, processing and marketing enterprises, extension services, faith-based organizations and emerging sector associations) lack sustainability and access to financial, knowledge and business advice resources. Hence, the reality is that a bigger budget should be allocated to both strengthen local organizations and provide adequate resources to sub-operators.

COVERAGE AND INTENSITY

KAVES reports provide evidence that the activity was active throughout all 22 counties. To track progress and results, the KAVES activity IP, Fintrac, developed the Client Impact and Results Information System (CIRIS), a database used specifically for tracking indicators relevant to agriculture and nutrition projects, as related in the KAVES MEL plan:

> *"To monitor and analyze USAID-KAVES M&E data it will be integrated into all M&E activities and all project staff and implementing partners will use a common system to report on specified indicators. While CIRIS was designed to track principally standard foreign assistance indicators as well as indicators useful for Fintrac project management, the application is also customizable to incorporate new indicators as necessary. With accessibility on handheld mobile devices and tablets, CIRIS allows for quick and effortless data collection, even in the most remote areas. This will be combined with the Feed the Future Management System (FTFMS) to enhance timely and accurate reporting."*[44]

The KAVES statement of work notes, "To achieve its objectives, the KAVES project shall be: (a) market-driven; (b) flexible and responsive to targets of opportunity; and (c) results-oriented."

In addition, KAVES activity documents indicate that initially the activity aimed to provide support to 550,000 smallholder farmers and their households. In 2016, this goal was amended to reflect 565,000 smallholder farmers and their households to receive support in 22 of Kenya's counties designated as the USAID ZOI. According to statistics maintained by the IP, the activity exceeded the 565,000 goal by 22,280 beneficiaries.

KAVES employed a reputable third-party survey firm (ETC – East Africa) to track progress and results. Issues with subcontractor performance were exemplified within the September 2015 survey titled "USAID-KAVES Field Experiences Report for Panel Survey Data Collection," which revealed substantial challenges in finding beneficiary groups that acknowledged involvement with or even awareness of KAVES. In addition, substantial discrepancies occurred between information provided by CIRIS and experiences of survey enumerators in the field. Nearly half of CIRIS-selected groups either did not exist or had never heard of KAVES.

The evaluation found low confidence levels in the panel surveys, lack of consistency (system) in probability proportional to size sampling and a lack of stratification to justify the extrapolation of the sample data to the whole KAVES population. The survey results indicate a clear lack of interaction between IP statistical staff and operational staff leading to anomalies, as well as a failure to properly train survey enumerator staff. For example, a total of 9,763 beneficiaries reportedly adopted crop insurance during the life of the project as a result of the extrapolation from the panel data.[45] However, KAVES operational staff report

44 KAVES Performance Monitoring Plan Revised 2016
45 KAVES Annual Report FY2017

that the only crop insurance the project supported was a pilot focused within the Kisumu hub involving a total of 150 beneficiaries.

Poor training and monitoring of survey enumerators was routinely seen across counties in the ZOI. Based on focus group interviews with smallholder groups, a majority of KAVES beneficiaries were or had been engaged with other donor-funded projects. KAVES M&E staff attempted to select respondents at random. Survey results indicate that ETC enumerators typically conducted interviews with individuals who confused the KAVES activity and interventions with other donor-funded projects, which led to questionable data — as seen in the insurance anomaly.

Similarly, the evaluation has noted some questionable conclusions drawn from ETC surveys related to financial credit concerning smallholders. Several KAVES reports cite access to financing as a critical constraint for smallholders:

> ***"Credit remains a critical constraint:*** *To become fully competitive, smallholders need technology. Availability and access to technology requires new financial products for equipment and inputs suppliers and distributors operating in rural areas. Buyers operating at village level are key to creating the market pull that drives increased production, but they are beyond the reach of current finance and credit projects supported by donors. If finance is made available to these two critical groups in the value chain, farmers will benefit directly and probably faster and more sustainably than from efforts to provide credit to the farmers themselves, who have little or no capacity or inclination to receive personal loans on commercial terms."*[46]

However, an ETC survey in 2017 reported the following:

> *"About 28.8 percent of the 2,791 households studied had adopted a financial product in the last six months prior to the survey."*[47]

The same survey also reported:

> *"An analysis of the three types of financial products promoted by USAID-KAVES project showed that majority of the respondents had adopted savings as a financial product (90 percent of the 803 households who had adopted some financial product)."*[48]

Concerning the intensity of the activity, interviews with KAVES staff members and subcontractors revealed that the goal to impact 565,000 beneficiaries was not conducive to achieving the activity's objectives. As reported elsewhere in this report, KAVES data indicates that 76 percent of all beneficiaries had only one interaction with KAVES. Only 4 percent were reported to have had three or more interactions with the activity. The data provided by KAVES did not suggest any value chain bias or regional preferences related to a lack of repetitive interaction with activity beneficiaries. Generally, subcontractors reported that the requirement to document large numbers of beneficiaries depended on the capacity to perform additional interventions and increase human resource capacity to acquire new beneficiaries. In most cases, subcontractors opted to engage in repeated interaction with those already established.

46 KAVES Qtr 4, FY2016 Report.
47 Draft report: Panel Surveys: Coordination, validation and data services for USAID-KAVES Project, Submitted by ETC East Africa to Fintrac, November 2017.
48 Ibid

Using another approach, KAVES began an aggressive campaign to promote the innovations and new technologies that the activity was encouraging smallholders to adopt. News releases, field days, trade fairs and similar activities carried information to a wide audience engaged in agricultural activities. While these public activities logically had a significant, positive impact, KAVES did not employ any measurement tools to determine their impact. But reports from respondents suggest that it was a successful endeavor, with some farmers stating that they were familiar with some of the campaign messaging.

GENDER

In Kenya, women constitute as much as 80 percent of the agricultural producers.[49] While women produce more than 70 percent of the food consumed in the country, they face severe constraints in accessing productive resources including markets, credit, education and training, as well as support services such as agricultural extension services.[50] The *USAID/KEA Gender Analysis for Regional Development Cooperation Strategy 2016* notes discernable gender-based disparities in access to resources, which results in a productivity gap between men and women farmers. This gap can be explained by limited mechanization coupled with a lower use of advanced agricultural technologies, including pesticides and inorganic fertilizers.[51] Accordingly, USAID/Kenya's FTF strategy notes that inequitable access to finance to purchase technology and inputs, and extension services to improve agricultural practices, results in inequitable benefits to men and women; it cites the inequity as an underlying cause of poverty.

KAVES' SOW includes directives for three activities relative to women's inclusion:

1. The Contractor's M&E plan shall utilize an approach that … monitors the accessibility of the project interventions and benefits to all sectors of the target population especially to women.
2. Training and technical assistance in product development, marketing and promotion, and finance will also be provided … with an emphasis on management and ownership by women and youth.
3. KAVES will … promote new facility investments within target regions to provide expanded employment opportunities (typically filled by women …)

The evaluation team noted that KAVES did not provide any evidence that these three directives were followed. Lacking were monitoring accessibility of interventions, a strong emphasis on management and ownership by women and stronger promotion of employment opportunities that favor women.

To KAVES' credit, during the course of field visits to ZOI counties, the evaluation team interviewed outstanding women beneficiaries who were successfully leading producer groups as well as women managing value-added food processing operations. However, it should be noted that all of the women interviewed who were in leadership positions gained support from KAVES late in the activity.

KAVES reported success in engaging women as participating beneficiaries. Activities and indicator reports were monitored and disaggregated by gender. As early as 2014, reportedly 56 percent of all beneficiaries

49 Njoki Ndwiga, Julie. "Challenges women farmers face in accessing Agricultural Extension Services." University of Nairobi, Institute of Anthropology, Gender and African Studies, p. 1.
50 Ibid
51 Benjamin, Judy, and Lis Meyers. USAID/Kenya and East Africa Gender Analysis for Regional Development Cooperation Strategy 2016-2020, Gender Analysis Report. Banyan Global, Washington, DC, January 15, 2016, pp 21-23.

were women, although it was at the activity midpoint in 2015 that an actual gender integration strategy was developed.

While USAID's Gender Equality and Female Empowerment (GEFE) Policy requires equitable opportunity for men and women to benefit from USAID resources and participate in USAID programs, KAVES management reported that USAID did not place emphasis on gender.

KAVES management promoted the uptake of technology to reduce manual labor that women perform. Recognizing that women have less access to financial resources than men do, KAVES specifically promoted technology to women's groups with encouragement to pool their resources to make purchases. KAVES also collected sex-disaggregated data for the number of people who applied improved technologies and management practices (45 percent men/54 percent women) and reported on the number of MSMEs receiving business development support (37 percent men and 63 percent women). However, data detailing the type of technology and size of MSMEs were not sex-disaggregated.

Initially, KAVES did not take any special measures to encourage applications from subcontractors that were woman-managed or woman-staffed. The process of identifying and selecting subcontractors was gender-blind until the final selection stage, at which point applications from woman-owned and woman-staffed subcontractors received preference. While KAVES did not have sex-disaggregated information on the number of subcontractors who applied or who were dropped at various stages of the selection process, KAVES staff reported the majority of subcontractors and staff were men.

Although KAVES should be credited with efforts to integrate women at all levels of value chains targeted by the project, Table 10 (generated from KAVES monitoring data) shows the majority of jobs KAVES created were filled by men. The data also indicates short-term technical assistance (STTA) was provided to men and women in proportions that reflect stereotypical gender roles. The majority of STTA for men was in the government and private sector, while the majority of STTA for women was directed toward producers and civil society.

TABLE 10. KEY SEX-DISAGGREGATED INDICATORS FROM CIRIS*

Indicator	Men		Women	
Number of full-time equivalent jobs created	4,037	63%	3,142	37%
Number of people with a savings account or insurance policy	72,294	45%	88,945	55%
Number of people implementing risk-reducing practices to improve resilience	114,078	48%	124,604	52%
Number of MSMEs, including farmers, receiving business development services**	36,823	37%	62,074	63%
Number of individuals who have received STTA agriculture sector productivity or food security training				
Producers	185,943	45%	223,353	55%
People in government	1,306	65%	710	35%
People in private sector firms	11,608	64%	6,440	36%
People in civil society	10,954	47%	12,561	53%

Value of agricultural and rural loans	9,426,890	45%	11,637,388	55%
Number of farmers and others who have applied improved technologies or management practices***	230,538	46%	267,609	54%

*Resulting from USG assistance **Not sex-disaggregated by size of MSMEs ***Not sex-disaggregated by technology type

EVALUATION QUESTION 2

To what extent did KAVES achieve the goal of farmer diversification into higher value chains?

The KAVES activity was premised on the theory that increasing maize productivity per acreage and therefore freeing up land for higher-value crops was a key factor in reducing high dependency on maize for nutrition and income generation. A value chain analysis study commissioned by KAVES in 2013 reaffirmed the risks of maize production as the only source of livelihood for smallholders in ZOIs and diversification as a key approach in the KAVES intervention package.[52]

As reported under the Evaluation Question I findings, productivity of maize per acreage increased. Change of maize and other crops' hectarage was not measured by the activity. The KAVES SOW (p.4) states: "*Farmer diversification in this case refers to farmers allocating less land to maize.*" KAVES relied on proxy indicators to monitor changes in diversification as follows:

- Number of crops small holder farmers were growing on their land (for horticulture and staples value chains)
- Proportion of small holder farmers venturing into more enterprises (across all value chains – dairy, horticulture and staples)

Based on information presented in activity reports along with qualitative evidence drawn from group discussions with beneficiaries, the evaluation team found sufficient evidence that smallholder farmers in horticulture value chains diversified into other crops. However, the evaluation team did not find evidence of reduction in maize acreage.

Using reported sales and volumes, the increase discussed in Section I confirms a reasonable degree of KAVES beneficiaries' diversification to other value chains, listed in Table 11.

TABLE 11. VALUE CHAINS BY COUNTY

County	Value Chains before KAVES	KAVES-Recommended Value Chains	
		Primary Products	Secondary Products
Kisumu	Dairy, French beans, sorghum, maize	Dairy, French beans, sorghum	Passion Fruit
Siaya	Maize, bananas, passion fruit, sorghum, groundnuts	Maize, bananas, passion fruit	Pulses, cassava, sorghum
Homa Bay	Dairy, groundnuts, pulses, sorghum, maize	Dairy, groundnuts, pulses	Sorghum, cassava
Kisii	Dairy, banana, maize, French beans, maize	Dairy, banana, maize	French beans
Nyamira	Dairy, banana, French Beans, maize, sorghum	Dairy, banana, French Beans	Maize, passion fruit

52 KAVES Maize Value Chain Analysis, 2013

County	Value Chains before KAVES	KAVES-Recommended Value Chains	
		Primary Products	Secondary Products
Bomet	Dairy, Irish potato, maize	Dairy, Irish potato, maize	Avocado, passion fruit
Kericho	Maize, dairy, Irish potato	Maize, dairy, French beans	Passion fruit, Irish potato
Nandi	Maize, dairy, Irish potato	Maize, dairy, French beans	Irish potato
Uasin Gishu	Maize, dairy, passion fruit, Irish potato, French beans	Maize, dairy, passion fruit	French beans, Irish potato
Marakwet	Maize, dairy, mango, Irish potato	Maize, dairy, mango	Irish potato, banana
Bungoma	Maize, dairy, French beans, sorghum, pulses	Maize, dairy, French beans	Pulses, sorghum, cassava
Busia	Dairy, groundnut, banana, pulses, sorghum	Dairy, groundnut, banana	Passion fruit, pulses, sorghum
Vihiga	Dairy, banana, French beans, sorghum	Dairy, banana, French beans	Avocado, passion fruit
Kakamega	Maize, Dairy, French beans, pulses, sorghum	Maize, Dairy, French beans	Pulses, cassava, avocado
Migori	Dairy, French beans, passion fruit	Dairy, French beans, passion fruit	Maize, groundnut, pulses
Trans Nzoia	Maize, dairy, French beans, pulses	Maize, dairy, French beans	Irish potato, pulses
Meru	Irish potato, banana, passion fruit, French beans, maize, mango	Irish potato, banana, passion fruit	French beans, maize, dairy, pulses
Tharaka-Nithi	Banana, sorghum, pulses, dairy, Irish potatoes, mangoes	Banana, sorghum, pulses	Dairy, Irish potato
Machakos	Dairy, pulses, mango, French beans, sorghum, cassava	Dairy, pulses, mango	French beans, cassava, sorghum
Kitui	Pulses, mango, passion fruit, sorghum, cassava	Pulses, mango, passion fruit	Sorghum, dairy, cassava
Makueni	Pulses, mango, passion fruit, sorghum, cassava	Pulses, mango, passion fruit	Dairy, sorghum, French beans
Taita-Taveta	Dairy, banana, French beans, maize	Dairy, banana, French beans	Maize, passion fruit

Source: KAVES progress reports 2013-2017

Interviews with beneficiaries demonstrated that, in many cases, the criteria for diversification were well developed by KAVES and based on the combination of market, investment and production potential factors, including some consideration of household nutritional needs.[53]

DIVERSIFICATION TO DAIRY AND HORTICULTURE

In the semi-arid zones of Kitui, Machakos, Makueni and Meru (SA2), interviewees reported that maize was traditionally a primary crop, despite poor productivity due to the quality of soils and unfavorable weather patterns. KAVES supported beneficiaries in Kitui and Migori to shift to dairy and horticulture. In spite of initially modest productivity, they finally expanded the production and increased productivity with KAVES support. For instance, in Kitui, a farmer reported that even with increased milk production, the supply was not sufficient to meet the demand of the local community.

53 KAVES Value Chain Analyses, 2013

However, farmers still faced the challenge of having an inadequate and expensive feed supply, particularly the case in dry months. In Kitui specifically, good-quality AI services were often unavailable; instead, expensive but poor-quality AI services were offered.

In the high-rainfall zones of Trans Nzoia, Bungoma, Homa Bay and Migori (HR1), previously nontraditional horticulture zones, farmers are now earning high returns from export horticulture (French green beans, sugar snaps, green peas, etc.). Interviews with subcontractors such as Veg Pro indicated that farmers in Trans Nzoia reportedly have adopted the growing of export crops without major challenges. In promoting diversification, KAVES worked with several horticultural exporters such as Veg Pro, Kenya Fresh and Carolina Fresh, which could have contributed to the high adoption rates, given that this provided a golden opportunity for these companies to expand their volumes and diversify their product portfolio.

The KAVES-inspired fodder value chain proved to be a significant opportunity for small-scale farmers to generate income from baled hay. The team interviewed producer groups that have ventured into hay farming in Makueni and Kitui. The groups reported increased income from the sale of hay bales. However, challenges relating to the low scale of productivity were identified, limiting the farmers' access to economies of scale and inhibiting mechanization. In Migori County, the director of Oyani Farm, a GOK research facility, noted in an interview the challenges related to scaling up the competitiveness of hay production.

KAVES advanced a related business opportunity: the production of improved fodder seed propagation intended for sale, critical to improving the viability of the fodder value chain. During an interview with a commercial hay trader, the team learned that the grass seed market traditionally has been informal. However, the team found an uptake of hay production in all counties visited, with semi-arid zone counties showing promising opportunities to scale up production. A key finding is that farmers who have adopted hay farming have depended on local and freely available inputs (e.g., seeds supplied through KAVES) and intensive and non-mechanized labor. KAVES interventions were intended to mature this value chain and, in turn, upgrade the dairy value chain.

DIVERSIFICATION TO SORGHUM

KAVES promoted small-scale sorghum farming in the SA2 zones of Kitui, Makueni, Machakos and Tharaka Nithi and the HR1 zones of Siaya, Kisumu, Homa Bay and Bungoma to meet the growing market demand from the beer malting industry. Producer groups interviewed were growing and aggregating sorghum as a cash crop for the EABL. This was demand-driven production where farmers had contracts with aggregators, who had contracts with the EABL. The success in farmer diversification into the sorghum value chain did not evenly span across the regions. In the Eastern counties of Makueni and Kitui, nontraditional sorghum-growing regions, the evaluation team interviewed farmers who were frustrated with farming sorghum as contract farmers for the EABL, owing to poor market linkage. While they were able to produce sorghum, the farmers said they were unaware of where to take their produce. As a result, the entire harvest was used for home consumption, resulting in a loss of income. This was compounded by the drudgery of sorghum farming, particularly in dealing with the bird menace during the flowering stage[54] and the labor-intensive nature of planting, thinning and harvesting. They held the view that sorghum had no reliable market and was not a worthwhile investment for the drudgery involved.

54 KALRO, 2018 – Katumani: Improving Sorghum Productivity in Arid and Semi-Arid Lands.

However, in HR1 Siaya and Kisumu, the diversification had a rewarding impact, with both counties recording the highest acreage under sorghum. This could be attributed to the fact that these two counties traditionally produced local varieties of sorghum, so adopting the new variety (Gadam) used by the EABL for beer manufacturing was relatively easy. The farmers produced sorghum as a cash crop for the EABL using production clusters and aggregated the produce into collection centers from which the grain trader, CARD, a KAVES subcontractor, used its commercial arm, Transu Limited, to purchase the produce and deliver it to the consumer, the EABL. Kisumu and Siaya farmers faced the same challenges of bird destruction and drudgery, but these challenges were alleviated by a well-organized and efficient farmer-support and marketing channel. This was done by coordinated collective planting and aggregation. Some of the farmers, however, indicated they had suffered losses due to the birds.

In both instances, sorghum is not the farmers' preferred crop for diversification; instead, they prefer cowpeas and soya beans in HR1 regions and green grams in SA2 regions. Discussions with the Kitui food security and crops officer indicated that the county sought to support green gram farming rather than sorghum.

The above scenarios present an interesting observation on the sorghum potential relating to smallholders. Where one zone complained of a lack of market for sorghum, the other zone had an efficiently organized market system, with a buyer (EABL) reporting inadequate supply of sorghum, suggesting a market imperfection that affects sustained diversification.

DIVERSIFICATION TO YELLOW PASSION FRUIT

In the SA2 counties of Kitui, Makueni, Meru and Tharaka Nithi and the HR1 counties of Homabay and Migori, where the evaluation team held interviews, yellow passion fruit had been introduced as a drought-resistant, high-income horticulture value chain. While the SA2 counties are still grappling with marketing challenges, Migori and Homa Bay counties are well linked to both export and local markets through an exporter, Carolina Fresh. Cases of passion fruit adoption were reported in Kitui, Meru and Tharaka Nithi. In both Kitui and Meru, farmers reported not having sufficient volumes for export, but they fetched good incomes in the local market, creating motivation for continued production. However, farmers in Tharaka Nithi reported challenges in production due to diseases (woodiness and dieback) and water supply deficiencies to sustain production.

EVALUATION QUESTION 3

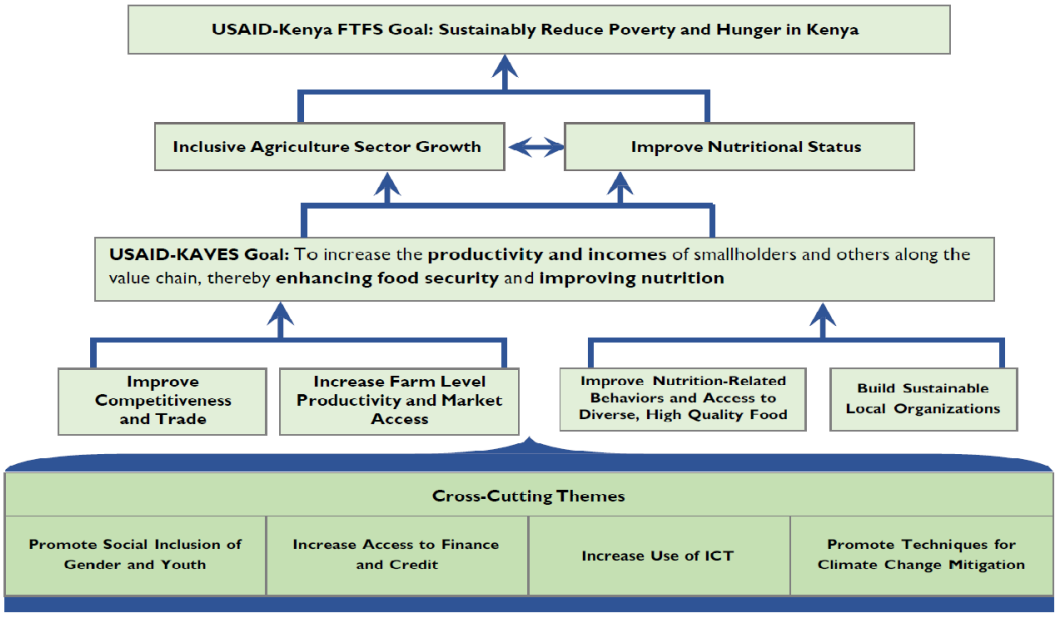
To what extent was the value chain theory of change valid and did the assumptions that drove the theory of change hold?

GAPS IN THE RESULTS FRAMEWORK

The KAVES results framework found within the project MEL plan[55] is reflective of the results framework found in the Kenya FTF Multi-Year Strategy (2011–2015).[56]

55 KAVES Performance Monitoring Plan (MEL plan) 2013
56 USAID Kenya's Feed the Future Multi-Year Strategy 2011–2015

FIGURE 4: USAID-KAVES RESULTS FRAMEWORK



Source: KAVES - Performance Monitoring Plan (MEL plan) 2013

In 2016, USAID funded[57] a global evaluation of FTF stated: "Although Feed the Future has dual goals of reducing poverty and undernutrition (measured through reduction of underweight and stunting), there is a lack of clarity on what constitutes desirable programmatic integration of agriculture and nutrition." As the same report noted: "The theory of change suggested by the FTF results framework should be revisited to incorporate learning about causal pathways between agriculture, poverty and nutrition over the past five years." The KAVES SOW notes that:

> *"Investments in agriculture which result in increased smallholder's incomes do not inexorably lead to the enhancement of the nutritional status of individuals in farm households, or to an improved access to a diverse supply of quality food. While some evidence exists, that well-designed agricultural interventions can also result in nutritional improvements, increases in agricultural production do not necessarily bring about improvements in nutrition and health.*
>
> *The implementation of Feed the Future has given great impetus to the need to better integrate nutrition into USAID's agricultural interventions. However, difficulties abound in linking agriculture and nutrition which comprise two distinct disciplinary domains that are typically institutionally separated in research and development agencies".*

This excerpt shows how the KAVES SOW casts doubt on the FTF theory of change. The KAVES SOW notes that "difficulties abound in linking agriculture and nutrition, which comprise two distinct disciplinary domains." In the first two years of the KAVES activity, the IP failed to follow the results framework guidelines and link agricultural productivity, income and nutrition. Programming focusing on Objective 1, as related to Nutrition and Component 3, was designed to target the general population versus KAVES beneficiaries. In 2015, the requirement to incorporate the USAID Multi-Sectoral Nutrition Strategy within FTF projects was announced. During the final half of the activity, substantial effort was put forth to achieve

57 Feed the Future Global Performance Evaluation Report December 2016

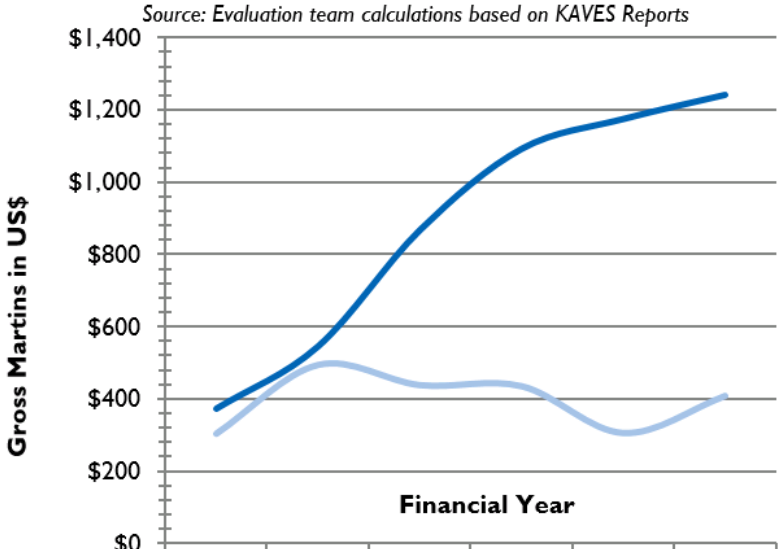
nutrition results among KAVES beneficiaries. The results of this are discussed in subsequent sections of this report.

INCOME DYNAMICS IN VALUE CHAINS

The most appropriate measure of farm income increase is the extent to which farmers were able to diversify income streams by participating in various value chains, as related to the competitiveness of different value chains in each zone. However, given the challenges of measuring incomes, KAVES used gross margins as a proxy measure of incomes. Based on life-of-activity results from the KAVES reports, smallholder farmers' incomes from dairy, maize and horticulture increased due to KAVES interventions. Over the life of the activity, maize incomes increased by 37 percent, from a baseline of USD $302 to USD $407 per hectare, while gross margins per cow increased by 130 percent, from USD $544 to USD $1,243 per cow. The steady rise in the gross margins for dairy from baseline to the final year of the activity did not repeat for maize, which suffered from unfavorable weather and pest effects.

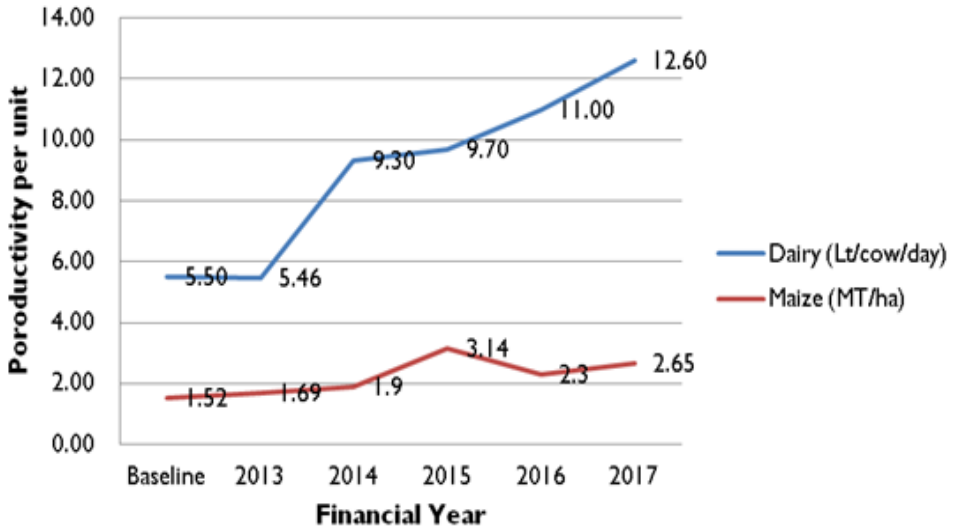
FIGURE 6. GROWTH IN GROSS MARGIN FOR MAIZE AND DAIRY

Source: Evaluation team calculations based on KAVES Reports



	Base line	2013	2014	2015	2016	2017
Dairy (per cow)	$371	$544	$867	$1,093	$1,176	$1,243
Maize (per ha)	$302	$493	$437	$434	$304	$407

FIGURE 7. KAVES MAIZE AND DAIRY PRODUCTIVITY TRENDS



Source: Evaluation team's calculations based on KAVES Reports

The increase in incomes for dairy farmers could be attributed to an increase in dairy productivity from a baseline of 5.46 liters per cow, per day to 12.6 liters per cow, per day, as well as a decrease in the cost of production over the life of the activity from USD $0.10 to USD $0.02, due to KAVES interventions. Farmers' adoption of feed and feed conservation technologies ensured that farmers were able to reduce the cost of feeding their animals, especially during the dry season. The fact that farmers had a ready market for their milk through the cooperatives, which also provided avenues of funding for them (farmers were able to get cash advances to address some of the dairy production inputs to improve their production), led to enhanced revenues. Improving the quality of milk by establishing more efficient milk collection and marketing systems led to reduced losses due to less milk spoilage, resulting in further income opportunities.

The increase in income for maize farmers could be attributed to an increase in maize productivity and reduction in the cost of production and post-harvest losses. However, there was a steady increase in productivity in the first three years, and the decline in the fourth year was primarily due to poor weather. Low and poor distribution of rainfall, especially in HR1, during the fourth year and an army worm attack in the fall were major constraints to the achievement of the productivity increase.

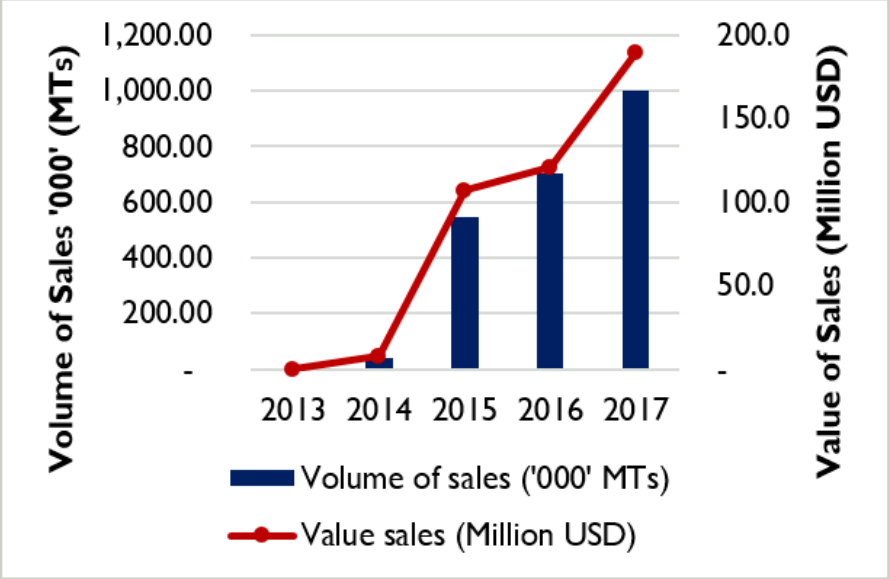
Although the maize productivity increased, interviews with producer groups revealed that the majority of maize farmers still felt the increase in income was not that high, especially given the prices being offered in the market by traders. During the evaluation, the team found the price of 90 kgs of dry maize offered by traders (mainly millers) was between KES 2,500 and KES 2,700 (USD $24.27 to $26.21), while the government price at the national strategic food reserve, the National Cereals and Produce Board (NCPB), was KES 3,200 (USD $31.07). Farmers preferred the traders; they were paying cash, while NCPB payment was delayed by between two weeks and a month.

Limitations in KAVES Income Measures: The KAVES MEL plan used only farm gross margins as a proxy indicator for income generation. The off-farm incomes related to retail, processing, marketing, logistics and other functions in the value chains were not measured. The KAVES 2017 survey reported that 75 percent of the rural households' income came from non-farm activities (99 percent in some

counties). Not measuring those incomes was a missed opportunity for KAVES in understanding rural poverty, the value chain enterprise dynamics, job generation, SMEs and incomes. When KAVES reports that household incomes increased by 37 percent due to staples productivity, this can mean a less than 1 percent increase of certain household incomes, overall.

The horticulture value chain is the most promising in raising the farmers' incomes directly through farming. As per the KAVES final report, "farm-gate sales of horticulture produce remained on a rising trajectory path, increasing from $100,000 in 2013 to $189.7 million in 2017. The sales provided livelihood to 251,117 smallholder farmers involved in various horticulture value chains. The incomes from handling, packaging and other functions in the horticultural value chain remain unknown (not measured)."

FIGURE 8. KAVES FARMERS' SALES TRENDS, 2013 – 2017



Source: Evaluation team's calculations based on KAVES reports.

NUTRITION OUTCOMES

The KAVES activity was based on the assumptions that poor nutritional status is a factor of poor household income and food insecurity. This assumption did not necessarily hold in the ZOI. The theory assumed that the factors affecting nutrition outcomes were the same in all zones. For instance, SA2 is food insecure. Interviews with farmers revealed challenges in accessing food. However, farmers reported to be consuming a bigger variety of foods due to the introduction of drought-resistant crops and the availability of technologies that increased the crop production for household consumption. In contrast, HR1 communities reported not having any challenges in accessing food, yet the rates of stunting were very high (29 percent), as mentioned in an interview with the county nutrition coordinator for Nandi. This suggests that marked increases in household food production and income do not necessarily equate to improved nutritional status of children under age 5 or pregnant and lactating women. Other factors could be at play that impact the utilization of food at the household and individual levels, e.g., cultural aspects affecting access to and preparation and consumption of certain foods requiring different types of interventions.

EVALUATION QUESTION 4

To what extent are the KAVES results sustainable without USG support?

The evaluation team considered the sustainability of the KAVES activity interventions from the perspective of various sources along the value chains. Key aspects of sustainability in this regard included: value chains, existing value chain actors and government and partner stakeholders, smallholder linkages and technology used. According to KIIs and FGDs with the value chain actors, stakeholders and beneficiaries, it was clear that certain factors will sustain results achieved though KAVES interventions.

County government (CG) involvement: KAVES worked with different departments of the CG in the 22 counties, where the levels of collaboration varied between counties as well as between departments. The CG departments involved in the KAVES activity included crop production, livestock production, health and nutrition. The evaluation team found that in counties where the CG was deeply involved in various stages of the project implementation, the project had better results. In such counties, the CG was aware of KAVES and was ready to complement KAVES interventions. This was especially apparent in interventions that required technical support, which is easily provided by extension personnel (subcounty agriculture officers and ward agriculture officers). Such successful collaboration between KAVES and the CG was evident in Machakos and Makueni with the livestock department, where the two teams worked hand in hand to promote the use of AI and proper animal husbandry to promote dairy farming.

Effective collaborations were also observed in Tharaka Nithi, where the CG worked with the KAVES nutrition team to promote nutrition as well as WASH activities. In Migori, the same effective collaboration was observed between KAVES and the health and nutrition departments. Findings pointing to poor collaboration with the CG were documented in Uasin Gishu and Kitui, and top-level officials' involvement only in Nandi resulted in county headquarters seemingly collaborating with KAVES, but such collaboration did not trickle down to the local county echelons. The CG teams reported that they were not fully involved in the KAVES activity and could not confidently affirm the sustainability of the activity's interventions.

ORGANIZATIONS SUPPORTED AND STRENGTHENED

Based on KAVES progress reports (quarterly and annual), the survey and interviews held with IPs, value chain actors and beneficiaries, the activity supported various organizations across the target value chains to strengthen their capacity through training and mentoring at all levels. Most of these organizations had been in existence long before KAVES, were involved in various value chain activities and had varying capacities in carrying out their value chain activities, management and governance structures.

KAVES worked with these organizations to train farmers with the aim of strengthening the capacity of the farmers to improve their productivity and the effective management of group dynamics. Practical learning events such as demonstration plots, field days, exchange programs for grassroots groups and training targeting compliance to quality standards were some of the methods used to build the capacity of these organizations. The evaluation team interviewed more than 23 farmer groups (farmers' cooperatives, producer groups and self-help groups); CBOs; and inputs suppliers, traders, processors and exporters across the three value chains. Interviews indicated mixed views of sustainability.

Some of the organizations that exhibited a high degree of sustainability include the following:

- Farmers' cooperatives that had strong management and governance structures, in part with KAVES support and in part due to the dairy sector's being more organized than other value chains;

- Processors who received support from KAVES and had good linkages for the supply of raw materials, including Sweet and Dried dealing with dried mangoes and E&A Industries (Ramba Fruit Processors) dealing with yellow passion fruit and mangoes, to name a few; and

- Horticultural farmers linked by KAVES to well-established horticultural exporters such as Veg Pro and Carolina Fresh, hence getting entrance to a ready market for their produce.

Training farmers on feed, fodder production and fodder conservation technologies and their adoption went a long way toward helping dairy farmers increase milk productivity. An assured market through the dairy cooperatives, which were collecting the milk for delivery to processors, will continue to ensure that the promoted interventions will be sustainable. Interviews with farmers and other stakeholders, such as the county livestock production director, confirmed this as a step in the right direction.

KAVES work with the farmers to improve breeding helped ensure increased milk production. Support to dairy cooperatives and processors in addressing aflatoxins and microbial load helped increase the quality of the milk and hence the competitiveness in the dairy sector, helping farmers fetch better prices for their milk and securing the sustainability of dairy farming. Meru Dairy confirmed that setting up the laboratory to check milk quality helped increase milk deliveries to the processor.

The maize farmers interviewed indicated that promotion of minimum tillage technologies, proper usage of fertilizers and technologies to reduce post-harvest losses more than doubled their maize productivity. Changing weather patterns notwithstanding, this indicates a good potential for sustainability.

KAVES supported agro-processors with diverse types of equipment that helped expand their processing capacity. Linking this increased capacity to the farmers helped stimulate higher volumes produced and supplied by them. Sweet and Dried, which processes dried mangoes, received an air dryer, several solar dryers, sinks and tables, increasing the company's processing capacity by over 100 percent (from 1.5-2 tons to 3-5 tons) while E&A Industries (Ramba Fruit Processors) received a cold chain facility that will increase mango and passion fruit juice production by about 150 percent. Meru Dairy was supported with laboratory equipment to check for high levels of aflatoxins and microbial load; this helped reduce losses. The supply from smallholders is expected to grow after the activity ends.

The KAVES project's work with horticulture exporters helped address some challenges that both producers and the exporters faced, such as maximum residue levels, which were affecting horticultural exports. KAVES interventions resulted in full compliance to the export market standards and thus helped exporters increase volumes, meeting required export parameters. This provided a ready market for farmers' produce. Discussions with exporters indicated that the project's facilitation of smallholder-exporter linkages was instrumental in improving their volumes and quality of produce and helped re-establish their position in the international markets.

Linkages established: KAVES progress reports, the partner organization survey and interviews with the IP, subcontractors, value chain actors and beneficiaries indicate that the project has helped establish linkages between smallholder farmers and other value chain actors. Over the project life, milk production

increased from 5.5 to 12.6 liters per cow, per day and gross margins increased by 128 percent, resulting from fodder production among other dairy animal management practices, including market linkages.

Linkages between horticulture-involved smallholder farmers, exporters and processors have enabled them to consolidate their fruit and vegetable production for joint marketing, and hence increased production and farm incomes. FGDs with beneficiaries and KIIs with value chain actors and stakeholders supported the view that these linkages are commercially viable and sustainable long-term.

Input technology used: Based on KAVES progress reports and field interviews, the activity achieved a certain level of sustainability through new input technologies. In the dairy value chain, some promoted technologies include AI, vaccinations, value addition, recordkeeping and feed preparation, with adoption rates of about 95 percent of KAVES dairy farmers reported in FY 2017. In counties where AI technology was supported through government subsidies, this technology had higher uptake and was cited as a successful intervention to enhance productivity through improved genetics. However, the genetic improvement is long-term; thus, it may not be possible to attribute the adoption of AI to increased dairy productivity under KAVES. In horticulture, KAVES promoted several climate-smart technologies, such as solar water pumps and water-efficient irrigation systems that enabled farmers to produce outside the main production seasons.

In maize and other staples, 61 percent (297,948) of all staple farmers reached by the project had adopted at least one new technology or management practice by the end of FY 2016 to help increase productivity and reduce post-harvest losses. Reports and discussions with farmers and other value chain actors of the three value chains indicate that they appreciated the benefits of technology and intended to use them further. Therefore, these technologies were evidence of having good sustainability potential.

Partners with deep roots in the community: To ensure sustainable development and local solutions, KAVES worked with a variety of local partners, including local CBOs, private agencies such as cooperatives and producer groups, input suppliers, consulting firms, NGOs, farmers, and trader lobbies or interest groups and exporters. KAVES endeavored to encourage local partnerships that foster the establishment of business relationships between subcontractors and various value chain actors. Beneficiaries exhibited a great deal of confidence about the partners with whom they were working, and some partners confirmed that they will be willing to continue supporting the farmers after the activity ends.

Crops/production diversification: KAVES also contributed to the smallholders' sustainability through diversification of their income and food sources beyond maize (e.g., drought-tolerant sorghum and millet, horticulture and/or dairy) and nutritional education to help them translate a more diverse basket of food into improved nutrition. Improvements in productivity included behavior change components that promoted diversification and innovations. Some of the farmers interviewed confirmed diversifying into new value chains based on the benefits they saw in the new crops. However, the remaining challenges with markets and bird control present a risk for the continuity in production of these crops.

CONCLUSIONS

OVERALL GOAL AND RESULTS ACHIEVEMENT

The KAVES activity demonstrated certain successes in supporting the target value chains and delivered most of the interventions required in its SOW. The horticulture and dairy/fodder interventions are likely

to have positive sector-wide effects. However, KAVES operations, while broad in scale, lacked depth in their outreach support to smallholders and vulnerable households. The requirement to serve 550,000 beneficiaries was an overly ambitious quantitative target, resulting in superficial interventions at the cost of quality and sustainability.

POVERTY REDUCTION

The activity reported that it achieved or exceeded indicator targets across all the four components as set in the MEL plan. However, the evaluation team concluded that a lack of consistency and quality affected the establishment of baselines, data collection and processing. The high-level FTF poverty, food security and nutrition indicators have not been measured in a way to document success or substantiate learning. Hence, there is no reliable evidence that KAVES increased the incomes of beneficiary smallholders or raised any beneficiary's incomes above the poverty line. The gross margin indicators used by the activity are no substitute for poverty prevalence or hunger measures.

NUTRITION IMPROVEMENT

The evaluation team concluded that nutrition programming failed to meet the desired objectives of the activity. KAVES failed to utilize existing USAID resources that are intended to assist FTF projects to improve productivity and incomes as an avenue to enhanced nutrition and health among smallholder farm families. Nutrition programming was not well-integrated into a predominantly agriculture-focused activity.

PRODUCTIVITY AND ACCESS TO MARKETS

Although unsuccessful at demonstrating the validity of the FTF theory of change as it relates to nutrition and health, the activity was able to demonstrate the validity of the FTF theory of change as it relates to increased productivity.

The positive impact and necessity of successful aggregation was clearly seen relating to all value chains supported by KAVES. Conversely, a lack of access to market-level storage and bulking facilities remains a general constraint related to smallholder agricultural production.

While findings related to the sorghum value chain demonstrate that the crop may have been successful in several counties, the evaluation concludes that poor coordination and a lack of sufficient extension support led to avoidable disappointment and failure among many producers.

COMPETITIVENESS AND PUBLIC-PRIVATE PARTNERSHIPS

The evaluation team concluded that the success seen in the KAVES activity's support to the horticulture value chain was largely due to deliberate efforts to address issues within the value chain through public-private partnerships. Increased competitiveness would have otherwise been unattainable in the absence of KAVES leadership in coordinating efforts among multiple sector players to revive the horticultural value chain.

GENDER

KAVES provided support to numerous woman-owned ventures, and a majority of beneficiaries were reported to be women. However, as with nutrition, the activity was late in developing a gender integration strategy and failed to take advantage of numerous USAID resources intended to assist projects in the development of gender integration and gender-sensitive programming.

In the interest of advancing USAID GEFE Policy, KAVES would have benefited from analyzing gender-based disparities in time and domestic responsibilities, roles in the home and access to finance.

SUSTAINABILITY

Counties in which KAVES engaged CG officials as partners in relation to activity implementation resulted in enhanced results and a higher probability of sustainability. The support provided to local institutions by KAVES demonstrated the potential to be sustainable in the long term, particularly due to improved financial management systems and linking and tracking systems to farmers, among others.

At the farmer level, many adopted GAP, but where farmers did not receive financial gain, the evaluation team concludes that beneficiaries are unlikely to continue farming activities for which they received support.

RECOMMENDATIONS

POVERTY, NUTRITION AND SCALE

- Especially for an activity the size of KAVES, USAID should endeavor to measure indicators such as income, poverty and hunger, even if not required by FTF.
- FTF projects should be equipped with the methodology to support the measurement of high-level outcome and impact results.
- FTF project implementers should understand that economic gains are intended as pathways to improved nutrition and health, as they relate to children under age 5.
- Subsequent FTF projects in Kenya should be designed with a smaller footprint within the ZOI. Projects covering vast geographic areas within numerous climatic zones and with the intention of assisting several hundred thousand beneficiaries have limited effectiveness and do not result in large-scale sustainability.
- Projects should also avoid setting overambitious quantitative targets for direct interventions at the cost of quality and depth. Projects must take advantage of all available USAID resources.
- Numerous USAID resources related to merging agriculture and nutrition were available, but KAVES did not utilize them. Project implementers must gain awareness of other donor projects to enhance results.

MEASURING VALUE CHAINS

- Subsequent FTF projects and their monitoring, evaluation and learning plans should consider measuring the value added, jobs created, and income generated across all functions in the targeted value chains, not only in primary production.
- More emphasis should be placed on youth engagement in both off-farm and farm-based activities as an opportunity and path to higher-level skills and incomes.
- Subsequent FTF projects should consider measuring the value added to farm produce across the value chains under review.

PARTNERSHIPS AND FINANCE

- USAID should continue efforts to encourage aggregation, as this will bring smallholders additional income and provide cost-effective raw product supply options for dairies, fruit processors, fresh produce exporters and breweries.
- Implementers of FTF projects should work closely with USAID missions, donor-funded projects, private sector actors and public offices (Ministry of Agriculture, Ministry of Health) with similar goals and objectives. Implementers should consider assigning experienced program staff to liaise with donors and project implementers engaged with similar activities.
- FTF projects should promote competitive financing for key value chain actors at the village level for improved value chain operations and enhanced prosperity.

PRODUCTION AND PROCESSING

- The dairy value chain should continue to be a key focus of FTF programming.
- FTF interventions related to food safety, especially fresh produce for exporting and milk for domestic consumption, should be continued.
- Development of food and fruit processing should encourage smallholder involvement through cooperatives with an interest in the financial success of processing facilities.
- When encouraging smallholders to switch to value chains promising higher returns on investment as a program strategy, production must be demand-driven. In addition, there must be a well-structured market system, demand-driven production and the support of extension services.

ANNEX 1: EVALUATION STATEMENT OF WORK

SECTION C – STATEMENT OF WORK

BACKGROUND INFORMATION

A. Identifying Information

Activity Name:	Kenya Agricultural Value Chain Enterprises Project
Implementing Partner:	Fintrac
Agreement Number:	AID-623-C-13-00002
Activity COR:	Harrigan Mukhongo
Life of the Activity:	5 years
Total Activity Funding:	$44,664,475
Type of Evaluation:	Final Performance
Period to be Evaluated:	January 2013 - June 2017
Date Completed Evaluation is Needed:	December 1, 2017

B. Development Context

Awarded on January 16, 2013, the five-year Kenya Agricultural Value Chain Enterprises (KAVES) Project is the flagship Feed the Future Initiative (FTF) project in Kenya. The project promotes value chain growth and diversification and increases the productivity and incomes of smallholder farmers and other actors along the value chains working in the dairy, maize, and other staples and horticulture crops in Kenya.

The project develops smallholder enterprises growing and producing staple food crops, high-value horticultural crops, and dairy products. The enterprises generate wealth for value chain actors, enhance food security, improve nutrition, and increase economic opportunities for women, youth and other vulnerable populations. Under KAVES, engagement with the private sector is being carried out in mutually beneficial partnerships that will increase the potential for sustainability after the project.

After five years of project implementation in January 2018, KAVES will have supported 550,000 smallholder farmers and their households to rise out of poverty in 22 of Kenya's counties. In addition, several actors along targeted value chains will benefit beyond the focus production counties. Target production enhancement counties include Bomet, Trans Nzoia, Elgeyo-Marakwet, Uasin Gishu, Nandi, Kericho, Bungoma, Busia, Kakamega, Vihiga, Siaya, Homabay, Kisumu, Nyamira, Kisii and Migori in the western region, and Meru, Tharaka Nithi, Machakos, Makueni, Kitui and Taita-Taveta in eastern regions of Kenya.

The project works with smallholder farmers, businesses and government partners to address constraints up and down the value chain—such as agro-processors, input suppliers, transporters, exporters, retailers, financing, and to develop fully-functioning, competitive value chains. The project is expanding the number

of micro, small and medium enterprises that can compete in selected markets, increasing the gross value of products and services overall, and expanding market share in local and export markets. The project fosters innovation and promotes technologies and techniques to increase the quality and quantity of nutritious foods consumed in rural households in order to sustainably reduce chronic under nutrition. It is also working to build the capacity of local organizations to undertake value chain work so that the project's gains and achievements can be sustained. KAVES is supporting growth and diversification of the agriculture sector to perform its central role in Kenya's development strategy as the main source of employment for more than 75 percent of the workforce.

C. Intended Results

Project Goal: to increase the productivity and incomes of smallholders and other actors along the value chain, thereby enhancing food security and improving nutrition.

Project Objectives:

1. Increase the competitiveness of selected agricultural value chains to increase incomes, mitigate food insecurity, improve nutrition, and increase the incomes of the rural poor;

2. Foster innovation and adaptive technologies and techniques that improve nutritional outcomes for rural households, sustainably reduce chronic under nutrition, and increase household consumption of nutrition-dense foods; and

3. Increase the capacity of local organizations to sustainably undertake value chain work.

D. Approach and Implementation

Project components included the following four components:

Component 1: Improved Competitiveness and Trade (relates to Objective 1 and comprises approximately 30 percent of total effort).

Component 2: Increased Farm Household Productivity and Market Access (relates to Objective 1 and comprises approximately 40 percent of total effort).

Component 3: Improved Nutrition-Related Behaviors and Improved Access to Diverse and Quality Food (relates to Objective 2 and comprises 15 percent of total effort).

Component 4: Building Sustainable Local Organizations (relates to Objective 3 and comprises approximately 15 percent of total effort).

EVALUATION RATIONALE

A. Evaluation Purpose:

USAID seeks the services of the contractor to evaluate the performance of the USAID/Kenya and East Africa (KEA) Kenya Agricultural Value Chain Enterprises (KAVES) Activity. The purpose of the evaluation is to assess the project's design, in order to inform relevant future designs for innovation activities. It will also inform management on whether the approach successfully met its goals of increasing incomes, improving nutrition and enhancing food security status in the zone of influence.

Based on the Feed the Future Theory of Change for Transforming Agriculture and Reducing Poverty and Hunger which stated that: To generate the economic growth needed to reduce poverty and hunger and to achieve the GOK's vision of a commercial and modern agricultural sector, FTF will invest in transforming agriculture through improved competitiveness of high-potential value chains and the promotion of diversification into higher-return on- and off-farm activities. The development of selected value chains will have multiplier effects that spawn off- and non-farm employment opportunities.

B. Audience and Intended Use

The KAVES evaluation findings will be used to interrogate and validate the Feed the Future Theory of Change, by assessing the project's design and performance of the implementing partner in order to enlist lessons learned to inform future value chain intervention activities. The report will also be used by management to determine whether the approach successfully met its goals of increasing incomes; enhancing food security; improving nutrition indicators; and enhancing resilience of the target communities.

The primary audience for the evaluation report will be the Office of Economic Growth (OEG), current implementing partners; dairy, horticulture and staple crops value chain actors, and government of Kenya.

Who are the audience	Purpose	How we will share
OEG staff and Mission Management	The KAVES activity was the flagship FTF value chain activity. The evaluation will help assess the success of the activity, including validation of the theory of change and help inform the new market systems activities under design	Draft report will be shared with OEG staff A presentation shall be made to OEG staff prior to a presentation to Mission management A mission out brief presentation shall be made by the evaluation team The Final Evaluation report shall be shared with the mission
Implementing Partner	To enable them to understand what worked well and what did not work in their activity enabling them replicate positive feedback to upcoming activities	A findings validation workshop will be held between the IP/USAID and contractor at the IPs office, thus not incurring additional costs. COP will attend the mission out brief presentation made by the evaluation team. The draft final report shall be shared with the COP for comment and the final report shared as well.

Who are the audience	Purpose	How we will share
Stakeholders Government - Ministry of Agriculture, Livestock and Fisheries	Encourage them to adopt the innovation Help the understand and address county Government related constraints	Copies of the report will be shared with them by Email/hard copies delivery by KAVES
Dairy, horticulture and staple crops value chain actors	To enable innovators to understand how to improve and scale up their innovations	
Bureau of Food Security (BFS)	To inform decision making on food security issues and programming	Final report emailed to BFS

A. Evaluation Questions

Question 1: To what extent did the KAVES achieve the intended goals and objectives? Please consider the following four components while answering this question.

a. The effectiveness of proportion of the components (competitiveness, productivity, nutrition, sustainable local organizations) in achieving the goals and optimal breakdown moving forward.

b. Whether the type of programming directed at each of the four objectives was designed to provide enough coverage and intensity to effect change.

c. Whether the interventions were gender sensitive. Disaggregate outcomes by gender.

Question 2: To what extent did KAVES achieve the goal of farmer diversification into higher value chains?

Farmer diversification in this case refers to farmers allocating less land to maize. USAID wants to know to what extent farmers moved from maize into higher value crops and what motivated them to move or not.

Question 3: To what extent was the value chain theory of change valid and did the assumptions that drove the theory of change hold?

Identify gaps revealed in the results framework during implementation and extent KAVES addressed them e.g.:

- Where in the value chain were incomes increased the most? Did farmer incomes increase
- Were there notable improvements as a result of improved nutrition

Question 4: To what extent are the KAVES interventions sustainable without USG support?

Provide details on if the interventions are sustainable and the reason for their sustainability or lack thereof. Please include illustrative examples in your analysis.

EVALUATION DESIGN AND METHODOLOGY

A. Evaluation Design

USAID expects the most rigorous evaluation design, and methodology that is appropriate for the scope of the project, resources, and target audience. To the extent possible, a mixed methods evaluation design may be used. USAID is open to an alternative design that is agreed upon in consultation with the evaluation team prior to inauguration of the evaluation exercise. A meeting will be held with the contractor to answer any questions that may arise from the Statement of Work, clarify the evaluation questions, and address any concerns, including the required evaluation team composition, methodology, and implementation timetable. Evidence collected, and analyzed in this evaluation must be both qualitative and quantitative data. Where applicable, data must be disaggregated by gender, and documented whether activities are reducing gender gaps or not. Data triangulation is encouraged in this evaluation.

B. Data Collection Methods

At a minimum, the following data collection methods must be used:

a. Secondary Data

A desk review of key relevant documents listed below and provided by USAID/KEA with the RFP is required. Content analysis of all available secondary data relevant to the evaluation will also be undertaken. Key documents to be reviewed must include but are not limited to:

- Activity Statement of Work, including any and all Modifications there to Work plans
- Activity M&E Plan with Results Framework
- The FTF Project Approval Document including the development hypothesis and theory of change that guided the project design
- KAVES project reports and lessons learned.
- Subcontracts with partners

b. Primary Data

The evaluation team must sample at least 6 counties from 3 regional hubs (SA2, Eldoret and Kisumu Regions). Counties sampled should also be representative of the value chains. In addition, the evaluation team will visit a sample of the twenty-two (22) KAVES counties. The evaluation team will at a minimum meet with USAID staff, KAVES in Nairobi and in the field staff as well as staff from the sub- contractors, smallholder farmers, and other value chain actors. A list of existing and former sub- contractors with their contacts shall be provided by USAID. In addition, the team will meet with county government officials where necessary including the Directors' of Agriculture, as well as hold group interviews with community members related to the various technology activities and impact investors. We expect that

interviewees shall be representative of the value chain actors in the different broad value chains (dairy, horticulture and staples) promoted by the activity.

Target production enhancement counties include Bomet, Trans Nzoia, Elgeyo-Marakwet, Uasin Gishu, Nandi, Kericho, Bungoma, Busia, Kakamega, Vihiga, Siaya, Homabay, Kisumu, Nyamira, Kisii and Migori in the western region, and Meru, Tharaka Nithi, Machakos, Makueni, Kitui and Taita-Taveta in eastern regions of Kenya. The activity organized its operations into 3 regional hubs as per the table below.

ZOI	Regional hub county	Counties served
SA2	Kitui	Meru, Tharaka Nithi, Machakos, Makueni, Kitui, Taita-Taveta
HR1	Eldoret	Bomet, Trans Nzoia, Elgeyo-Marakwet, Uasin Gishu, Nandi, Kericho
HR1	Kisumu	Vihiga, Siaya, Homabay, Kisumu, Nyamira, Kisii, Migori Bungoma, Busia, Kakamega

The evaluation team must sample at least 9 counties from 3 regional hubs (SA2, Eldoret and Kisumu Regions) 3 counties from each region. Counties sampled should also be representative of the value chains.

The evaluation team must use key informant interviews or focus groups to meet with farmers benefiting from each of the technologies and value chains presented. The evaluation team may suggest additional data collection methods and analysis approaches that, in their opinion, best accommodate the objectives of the evaluation. The final evaluation approach must be discussed and agreed upon with USAID, and will be retained as part of the inception report.

C. Data Analysis Methods

The contractor must have a clear plan for analyzing and triangulating data from various methods, and sources to generate high quality, and credible evidence to answer the evaluation questions. To the extent possible analysis should be disaggregated by value chains (dairy, horticulture and staples) and sex. The analysis method(s) must be relevant to the data collection tools proposed. Potential limitations of the methodologies must be thoroughly considered along with ways to mitigate the limitations and presented in the Inception Report.

All conclusions made by the evaluation team must be substantiated by clear, verified evidence. Anecdotal evidence and allegations will not be considered sufficient for drawing conclusions and providing recommendation.

D. Methodological Strengths and Limitations

Contractor must spell out the strengths and limitations of evaluation methods adopted.

Team Composition

Evaluation Team Composition

The offeror must propose the most effective team composition based on the proposed methodology. Key personnel must have demonstrated relevant prior experiences in Africa; familiarity with USAID's business models; and prior evaluation and assessment experience. In addition, individual team members should have the technical qualifications identified for their respective positions. The team must have sufficient relevant experience in agriculture, agribusiness, private sector, and business incubation.

Please see Section F.4 for key personnel.

Evaluation Products

See Section F.5 for deliverables.

Evaluation Management

a. Logistical Support: USAID/KEA will provide other relevant documents and information for this assignment. USAID/KEA Strategic Planning and Analysis Office will manage this contract and coordinate with the technical office, Office of Economic Growth (OEG). The offeror will be fully responsible for all logistical and secretarial support including local and regional travel and will be required to demonstrate ability to obtain any security and medical clearances required by USAID.

b. Scheduling: USAID/KEA expects this evaluation to take place between October 15, 2017 and February 15, 2017.

USAID Evaluation Policy standards must be met by the offeror throughout the contract.

[END OF SECTION C]

ANNEX 2: EVALUATION MATRIX

Evaluation Questions	Type of Answer/ Evidence Needed (Check one or more, as appropriate)		Methods for Data Collection e.g., Records, Key Informant Interviews, Mini-Survey[58]		Sampling or Selection Approach (if one is needed)	Data Analysis Methods, e.g. Frequency Distributions, Trend Analysis, Cross-Tabulations, Content Analysis
			Data Source(s)	Method		
1. To what extent did the KAVES achieve the intended goals and objectives?	**Yes/No**		**Documents**: Activity reports, KAVES Technical description document, contract modifications, baseline and annual survey data **Stakeholders**: USAID/KEA, KAVES staff and management, subcontractors, government representatives, farmer associations or cooperatives, household level beneficiaries, value chain actors	Secondary data review KIIs, group discussions, and survey (to be confirmed)	Purposive sampling[59] of stakeholders and documents	Content analysis Pattern analysis Comparative analysis (for data source triangulation)
	X	Description				
	X	Explanation[60]				
	X	Comparison				
2 To what extent did KAVES achieve the goal of farmer diversification into higher value chains?	**Yes/No**		**Documents:** Activity reports and M&E data, baseline and annual survey data **Stakeholders**: KAVES staff and management, subcontractors, farmer associations or cooperatives, household level beneficiaries, value chain actors	Secondary data review KIIs, group discussions	Purposive sampling of stakeholders and documents	Content analysis Pattern analysis Comparative analysis (for data source triangulation)
	X	Description				
	X	Comparison				
	X	Explanation				

58 Data from evaluations are a deliverable and methods should indicate how data will be captured, i.e., for focus groups USAID requires a transcript.
59 Purposive sampling will be based on type of activities in the county, value chain and role played in the project.
60 Explanation – for questions that ask "why" or about the attribution of an effect to a specific intervention (causality)

Evaluation Questions	Type of Answer/ Evidence Needed (Check one or more, as appropriate)		Methods for Data Collection e.g., Records, Key Informant Interviews, Mini-Survey[58]		Sampling or Selection Approach (if one is needed)	Data Analysis Methods, e.g. Frequency Distributions, Trend Analysis, Cross-Tabulations, Content Analysis
			Data Source(s)	Method		
3. To what extent was the value chain theory of change valid and did the assumptions that drove the theory of change hold?	**Yes/No**		**Documents**: Activity reports, KAVES Technical description and results framework, contract modifications, baseline and annual survey data **Stakeholders**: KAVES staff and management, subcontractors, government, farmer associations or cooperatives, household level beneficiaries, value chain actors	Secondary data review KIIs, group discussions	Purposive sampling of stakeholders and documents	Content analysis Pattern analysis Comparative analysis (for data source triangulation)
	X	Description				
	X	Comparison				
	X	Explanation				
4. To what extent are the KAVES interventions sustainable without USG support?	**Yes/No**		**Stakeholders**: KAVES staff and management, subcontractors, government, farmer associations or cooperatives, household level beneficiaries, value chain actors	KIIs, group discussions	Purposive sampling of stakeholders	Content analysis Pattern analysis Comparative analysis (for data source triangulation)
	X	Description				
	X	Comparison				
	X	Explanation				

ANNEX 3. DATA COLLECTION INSTRUMENTS

Key Informant Interview Questionairres

Producer Groups (Focus Group Interviews)

1. How many members are there in this group? Disaggregate by gender (Male, Female, Youth)
2. Where was the first interaction with the project?
3. Did KAVES explain what benefits would accrue from participating in this project?
4. Did this group exist before the KAVES project?
5. What farming activities were you involved in before the KAVES project?
6. What was the motivation in engaging in these activities?
7. What farming KAVES project activities are you presently involved in?
8. What is the motivation of engaging in the current activities?
9. Do you farm as individuals or collectively? Why?
10. What benefits would you consider to have received from the KAVES project?
11. What benefits did you obtain from the KAVES project that you would not have if you were not part of the project?
12. Did you receive any training from the KAVES Project? If so, which ones?
13. How have you benefited from these trainings? If so, how?
14. To what extent did you experience changes in…… as a result of KAVES project:
15. Income
16. Extension services
17. Knowledge transfer /Training
18. Inputs supply/ pricing
19. Credit
20. Technology
21. Market linkages
22. To what extent has the KAVES project improved your family's food security and nutrition status?
23. Have there been any challenges with the implementation of the KAVES activities?
24. What do you consider to have been the major successes of the KAVES project?

25. What would you consider to have been the major failures of the project?

26. What do you think should have been done differently in this project?

27. When the KAVES program ends, will you be able to continue with these activities? Yes/No

    a. If Yes, how?
    b. If No, why?
    c. What is required?

USAID STAFF

1. The USAID ZOI was initially developed in 2010. Is the area targeted still relevant as related to projects like KAVES or should there be consideration of changing the ZOI?

2. Were you involved in the development of the KAVES design and methodology?

3. Are you aware of any modifications of the results framework for the project?

4. Were you involved in reviewing or critiquing KAVES performance during the period of implementation?

5. The KAVES project design placed a heavy focus on the performance of subcontractors. Was this concept normal for USAID projects in Kenya? Based upon your knowledge, was the concept successful in this case?

6. Were there any instances where some of the subcontractors were not able to deliver on their mandate? What was USAID's role in ensuring delivery?

7. The MEL plan for KAVES was amended midway through the project. Do you know why?

8. Based upon the evidence to date, has the KAVES project met its objectives as related to the expected contribution to the "Whole of Government Roadmap for Kenya's Feed the Future Strategy"?

9. Based upon your knowledge of KAVES, was the project successful in relating to governmental institutions as well as other projects and donors as directed by the SOW for the project?

10. Was the methodology and reporting as related to M&E satisfactory?

11. What would you say are of the lessons learned as related to the KAVES project?

12. How sustainable do you consider the interventions implemented by KAVES would be sustainable? What interventions implemented by KAVES do you think would continue after the project closes?

13. As KAVES is closing, do you have any recommendations as to USAID FTF interventions going forward?

Government & Government Agencies

1. What do you know about the KAVES project?

2. Did you have any interaction with the KAVES project? How long have you been involved with the project?

3. What was the nature of your interaction with the KAVES project? Please describe.
4. Are you familiar with the objectives of the KAVES project? Please describe
5. Whom would you consider to have been the biggest beneficiary of this project? Why?
6. What support did this office provide toward the implementation of the KAVES project? Please describe.
7. Are you aware of any challenges the project implementers experienced? What would have made some project implementers successful over others?
8. How did the KAVES project interventions impact on the productivity, commercialization, food security and nutrition of its beneficiaries (positively or negatively)? Please describe.
9. Were there any new or existing innovations introduced by the KAVES project? Please describe the innovation(s) and how it has impacted on productivity, commercialization, food security and nutrition in the county. Is the innovation(s) easily replicable?
10. What would you consider to have been the enabling or limiting factors to the adoption of the innovation(s) sited in Qn. 9?
11. Do you know of any notable examples of how the KAVES project impacted the producers and actors along the value chains where KAVES intervened, positively or negatively? Please describe.
12. In general, how would you describe your experience with the KAVES Project?
13. What would you consider to have been the major successes and failures of the project?
14. What would you say are the lessons learned from this project?
15. In your opinion, when the project comes to an end, will the projects interventions continue being enjoyed by the projects beneficiaries? Please expound.
16. What would your recommendations be to other development partners who would like to support farming and value addition activities in the county?
17. If USAID were to fund another activity similar to KAVES, what kind of support would you like to receive?

Implementing Partners

1. What need was the KAVES project designed to meet? To what extent did the KAVES project meet this need?
    a. How do you know?
    b. How many people would you estimate to have been reached by this intervention(s)?
    c. Were there any unintended results of the project? How did they come about? Who were the beneficiaries?
2. What more can you tell us about the key indicators reported? Were targets achieved as expected? If no, what were the reasons?

3. The KAVES project design placed a heavy focus on the performance of subcontractors. Based upon your experience, was the concept successful?
4. Were there instances where the subcontractors were unable to meet their obligations?
    - How did you, as the lead agency handle that to ensure there were no delays in achieving the proposed targets?
5. Based on your experience, were the implementation activities per component sufficient to achieve the results expected?
    - Where did you experience the least results, and why?
    - Where did you experience the highest results and why?
6. Did you integrate Nutrition and WASH in your activity? How did you integrate?
7. Was the value of nutrition adopted by beneficiaries?
    - If Yes, how?
    - If not, why?
8. Did you collaborate with other organizations?
    a. How effective was KAVES work with collaborating organizations toward project implementation and project outcomes?
9. Were the KAVES interventions purposively gender sensitive? Examples?
10. Were there any changes in the project objectives, and the implementation activities/ plans?
    - How?
    - Why?
11. Will the interventions being provided by sub contractors continue after the project ends?
12. Will the relationships between producers and various value chain actors continue after the project ends? Explain.
13. What Agricultural policy gaps has the KAVES project been able to address?
    - Which ones will be met after the project?

Input Suppliers

1. How and when did you learn about the KAVES project?
2. How long have you been involved with the KAVES project?
3. Were the objectives of the project explained to you? Please explain.

4. Were you in this business before KAVES?

5. What was the range (variety, volume, etc.) of products traded in your business before the KAVES project?

6. What is the range of products traded in your business after your involvement with the KAVES project?

7. What has been the impact (to your business) of your involvement with the KAVES project?

8. What benefits did you derive from the project that you would not have if you did not participate in the project? (*Guide for the researcher: hybrid seeds, seeds diversification, fertilizer diversification, chemical diversification*).

9. When the KAVES program ends, will you be able to experience these benefits? Yes/No

   i. If Yes, how?
   ii. If No, why?
   iii. What is required?

10. Have there been any challenges you have experienced with the implementation of the KAVES activities?

11. What do you think could have been done differently to make this project more successful?

Agro-Traders (Brokers, Transporters, Aggregators, Exporters & Processors)

1. How and when did you learn about the KAVES project?

2. What is the structure of your business? (Sole-proprietor, Company, Partnership, Coop, etc.)

3. What does your business deal with? (Horticulture, Staples, Dairy, etc.)

4. Did KAVES explain to you what the objectives of the project were? Please explain

   a. Were the objectives of KAVES relevant to you as a ----------(broker, transporter, aggregator, exporter, processor)?

5. Did you participate directly in the KAVES project? If so, how?

6. To what extent did this support from KAVES affect your business? Please describe.

7. What are your major challenges in running this business?

8. Has your participation in the KAVES project addressed any of the above challenges? Explain

9. How has your business been impacted by your involvement with KAVES project (positively or negatively)? Please describe.

10. Did participation in the KAVES project change the way your institution does business? How?

    a. Knowledge
    b. Skills
    c. Input

d. Technology
e. Other

11. Were there any new or existing innovations introduced by the KAVES project? Please describe the innovation and how it has impacted on your business.

12. What would you consider to be the limiting or enabling factors in the adoption of the innovation(s) introduced by the project?

13. Do you know of any notable examples of how the KAVES project impacted the producers and actors along the value chain, positively or negatively? Please describe.

14. To what extent would you consider the project to have achieved its objectives?

15. In general, how would you describe your experience with the KAVES Project?

16. When the project comes to an end, would you be able to continue with your business activities? Please describe.

17. If USAID were to fund another activity similar to KAVES, what kind of support would you like to receive?

Financial Institutions and Insurance Carriers

1. What is the mission or mandate of your financial institution (insurance carrier)?

2. Given the experience of your financial institution (insurance carrier), what factors enable access to finance (insurance) in rural areas?

3. Given the experience of your firm, what are the barriers to access to for smallholders and/or the actors, stakeholders engaged in staple foods, horticulture or dairy?

4. Does your institution offer products targeted at any of the following groups/sectors:

    a. Rural borrowers
    b. Women
    c. Youth
    d. Smallholder farmers
    e. Clean energy
    f. Water, Hygiene and Sanitation (WASH)

    If yes, please describe.

5. Did your firm have any interaction with the USAID/KAVES project? What was the nature and level of interaction?

6. What was the benefit to the above groups of your interaction with KAVES? Did it translate to business opportunity(ies) to your firm?

7. If there was a connection to KAVES, did this relationship affect your services to the above listed groups/sectors? If so, how?

8. Do you know of any notable examples of how KAVES impacted rural Kenyans, positively or negatively? Please describe.

9. How could KAVES improve the support offered to smallholder farmers?

10. Based upon your knowledge and observation of KAVES; do you believe the results of the project to be sustainable?

11. In general, what would you describe your experience with KAVES? What worked well and what did not work well? What should have been done differently?

12. If USAID were to fund another activity similar to KAVES, what kind of support would you recommend?

Other Implementers (including USAID projects) and Donors

1. What do you know about the KAVES project?

2. What has been the nature and level of your project's interaction with the KAVES project?

3. Based on your interaction with KAVES, what would you say has been the major contribution of KAVES to the lives of the smallholder farmers in the following:

    a. Household productivity and diversification
    b. Market access
    c. Nutrition

4. What projects/ activities related to smallholder farmers has your organization implemented over the past five years?

5. Are you familiar with the USAID ZOI where projects funded by USAID have been focused?

6. Has your organization been engaged or supported interventions related to smallholder farmers within the USAID ZOI during the past five years? What are those interventions?

7. Many donor projects provide assistance in the same geographic area. Has this factor been an issue as related to KAVES?

8. Based upon your knowledge and observation of KAVES, do you consider the project methodology and design to be a successful model?

9. Do you believe the KAVES interventions will be sustainable?

10. What would you consider to have been the major challenges with KAVES to the achievement of its program goals?

11. What would you consider to have been key lessons learnt from this project?

PART I. Screening Tool

Respondent Identification:

Instructions: Information to be filled ahead of telephonic interview

Date of Call	
Time of Call	
Name of Business	
Name of Respondent(*Optional)*	
Gender	
Designation of the Respondent	
Respondent's contact (Email and phone number)	
Location of the Business	
County	
City in county	
Hub county *(Enter one: Kitui; Eldoret; Kisumu)*	
Scheduler's Name	

Instructions: Read section out loud.

Good morning/ afternoon/evening. My name is …….from Research Solutions Africa. We are an independent market research company based in Nairobi.

We are calling you today to request 5 minutes of your time as part of a screening exercise to understand how your business has been involved with the USAID-funded KAVES project. KAVES project was implemented between January 2013 and June 2017. KAVES main aim was to promote value chain growth & diversification by supporting actors along the value chains of dairy, maize, staples and horticulture crops in Kenya.

A final evaluation of the KAVES project is underway. RSA has been contracted to support the evaluation and reach out to businesses/ organizations that have been supported by KAVES (directly or indirectly). KAVES sought to strengthen capacity for businesses/ organizations by providing training in the following areas (to name a few):

- Business/ Administrative management
- Financial management
- Planning
- Monitoring & Tracking
- Service delivery
- Governance

The primary aim of this call is to identify two people within your business/ organization/ enterprise that are aware of KAVES and the kind of support that KAVES has provided.

This information will be used to help us update our list of contacts as we plan to contact your business/ organization/ enterprise in a few days to hold a brief interview that will take no longer than 30 minutes.

Please note that your participation is voluntary. You are free to not answer any question with which you are not comfortable, and you may stop the interview at any time, in which case we will only use the data up to the point you withdrew from the interview. Your responses will be aggregated with other participants' responses and your name will not appear on any of our reports.

If you have any questions about the survey, you may contact [state name] at [state organization].

May I begin?

Screening Questions

1. Are you the person who was solely or mostly involved in the KAVES project?
    a. Yes …….. CONTINUE TO QUESTION (3)
    b. Another Person……. ASK TO SPEAK TO THE RELEVANT PERSON THEN CONTINUE TO QUESTION (2)
    c. I am not aware of the KAVES project……BEFORE SELECTING C, DESCRIBE THE ACTIVITIES SUPPORTED BY USAID/KAVES PROJECT TO BE SURE THEY ARE NOT FAMILIAR.
2. Please state your name, job title/ position and confirm your primary contact?
    a. [DOCUMENT FULL NAME]
    b. [DOCUMENT JOB TITLE/ POSITION]
    c. [DOCUMENT TELEPHONE CONTACT INFORMATION]
3. What type of support did your firm/ business receive from KAVES?

SUPPORT	CODE	
Capacity building/ training: (financial management, governance, procurement systems, business management, strategic planning, bench marking and other best practices)	1	
Financial support	2	
Equipment	3	
Linkages to farmers	4	
Linkages to other value chain actors		
Other (specify):	6	[DOCUMENT ENTRY FOR OTHER BELOW]
None (specify):	7	[DOCUMENT RESPONSES TO QUERIES BELOW & CLOSE INTERVIEW IF IT IS CLEAR THAT THERE WAS NO KAVES SUPPORT RECEIVED]

Other:

_____

None:

- Why was there no interaction with KAVES?

  _____

- Was support discussed but not provided?

  _____

4. Is there another person at your business that is aware of support provided by KAVES?

    a. Yes……CONTINUE TO QUESTION (5)
    b. No……DOCUMENT THEIR RESPONSE AND CLOSE INTERVIEW.

_____

_____

5. Please state their name, job title/ position and their primary contact:

    a. [DOCUMENT FULL NAME]
    b. [DOCUMENT JOB TITLE/ POSITION]
    c. [DOCUMENT TELEPHONE CONTACT INFORMATION]

Instructions: Read out loud

Thank you for your time. We would like to schedule and interview with you during the period of ……. [PROCEED TO SCHEDULE AN INTERVIEW OR TO CONDUCT SURVEY INTERVIEW WITH RESPONDENT UPON THEIR REQUEST]

CLOSE THE INTERVIEW

PART II. Survey Questionnaire

Section A. Business/ Organization/ Enterprise Profile

***Instruction**: Capture information by referencing the appropriate code from the list available in answer selection.*

A1. What are your primary business activities?

ACTIVITIES	CODE
Input supplier	1
Broker	2
Transporter	3
Aggregator	4
Exporter	5
Processor	6
Subcontractor	7
Other [specify]	8

A2. How long has been your business in operation?

TIME IN OPERATION	CODE
Less than one year	1
More than 1 year, up to 2 years	2
More than 2 years, up to 5 years	3
More than 5 years, up to 10 years	4
More than 10 years	5

A3. What is the nature of your business (legal status)?

NATURE OF BUSINESS	CODE
Sole Proprietorship	1
Partnership	2
Co-operative	3
Limited Company	4
Non-governmental organization (NGO)	5
Community-based organization (CBO)	6
Self-help group	7
Other(Specify)	8

A4. What are the major challenges you face in operating your business? [INTERVIEWER TO PROBE AND CAPTURE MORE THAN ONE CHALLENGE AS NEEDED]

_____

_____

_____

_____

_____

_____

Section B. History with KAVES

Instruction: *Capture information by referencing the appropriate code from the list available in answer selection. For queries that require open-ended responses, capture the respondent views in the space provided.*

B1. When did the relationship between your firm/business and the KAVES project begin?

YEAR	CODE
2013	1
2014	2
2015	3

2016	4
2017	5

B2. Based on the support you received as mentioned above, which of the following challenges did KAVES activities address?

CHALLENGES	CODE
Few personnel to reach farmers	1
Low purchasing power of farmers	2
Lack of knowledge to correctly utilize input	3
Poor farming practices	4
Poor access to finance	5
Poor quality	6
Other (specify)	7

Other:

_____

B3. The next set of questions seek to understand your opinion on training you received from KAVES.

1. In what areas did you receive support in? [MARK ALL RELEVANT TRAINING AREAS AND SKIP TO RELEVANT QUESTION]

2. In which year(s) did you receive this training? [ENTER YEAR OF TRAINING INTO ADJACENT COLUMN LABELED 'YEAR RECEIVED']

AREA OF SUPPORT RECEIVED	CODE	YEAR RECEIVED (2013-2017)
Administrative support		
Business management systems	1	
Financial Management (budgeting, accounting, financial security)	2	
Human Resource Management (staffing, skills)	3	
Technical support		
Management of other resources (equipment/ machinery, etc.)	4	
Service delivery	5	
Planning	6	
Tracking	7	
Organizational support		

Governance & Leadership	8	
Vision & Mission	9	
Linkages	10	

B4. Thinking about the challenges you faced before your engagement, how relevant was the support/capacity building (training etc.) received from KAVES? 1=very irrelevant and 5 = very relevant.

***Instruction**: Pick one answer option to reflect respondent views.*

AREA OF KAVES CAPACITY BUILDING SUPPORT	VERY IRRELEVANT	IRRELEVANT	UNDECIDED	RELEVANT	VERY RELEVANT	N/A
Administrative support						
Business management systems	1	2	3	4	5	6
Financial Management (budgeting, accounting, financial security)	1	2	3	4	5	6
Human Resource Management (staffing, skills)	1	2	3	4	5	6
Technical support						
Management of other resources (equipment/ machinery, etc.)	1	2	3	4	5	6
Service Delivery	1	2	3	4	5	6
Planning	1	2	3	4	5	6
Tracking	1	2	3	4	5	6
Organizational support						
Governance & Leadership	1	2	3	4	5	6
Vision & Mission	1	2	3	4	5	6
Linkages	1	2	3	4	5	6

B5. I will read out a list of attributes related to training. Please tell me how would you rate the quality of training that you received based on these statements? 1 =very poor quality and 5 very good quality

***Instruction**: Pick one answer option to reflect respondent views.*

ATTRIBUTES	VERY POOR QUALITY	POOR QUALITY	AVERAGE	GOOD QUALITY	VERY GOOD QUALITY	N/A
The trainer was knowledgeable in the area of training	1	2	3	4	5	6
The material used were adequate	1	2	3	4	5	6

The content was useful	1	2	3	4	5	6
Training included both theory and practical aspects	1	2	3	4	5	6

B6. To what extent do you agree with the following statement as a result of the training you received? 1= Strongly disagree 5 = Strongly Agree

***Instruction**: Pick one answer option to reflect respondent views.*

STATEMENT	STRONGLY DISAGREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE	N/A
I am able to produce better financial reports	1	2	3	4	5	6
I am able to monitor, track and meet reporting requirements	1	2	3	4	5	6
I am able to do benchmarking for my company/ business/ organization	1	2	3	4	5	6
I have a good understanding of procurement systems	1	2	3	4	5	6
I have the ability plan strategically for my company/ business/ organization	1	2	3	4	5	6
I understand the link between what I do and the organizations mission, vision and goals	1	2	3	4	5	6
I am able to assess farmer needs and respond with appropriate extension services	1	2	3	4	5	6
My company/ business/ organization now has governance structures in place	1	2	3	4	5	6
My company/ business/ organization is now formally register our organization	1	2	3	4	5	6

B7. How would you rate your satisfaction with the support that you received from KAVES? 5=very satisfied, 1=Very dissatisfied

***Instruction**: Pick one answer option to reflect respondent views.*

AREA OF KAVES CAPACITY BUILDING SUPPORT	VERY DISSATISFIED	DISSATISFIED	UNDECIDED	SATISFIED	VERY SATISFIED	N/A
Administrative support						
Business management systems	1	2	3	4	5	6
Financial Management (budgeting, accounting, financial security; benchmarking)	1	2	3	4	5	6
Human Resource Management (staffing, skills)	1	2	3	4	5	6

AREA OF KAVES CAPACITY BUILDING SUPPORT	VERY DISSATISFIED	DISSATISFIED	UNDECIDED	SATISFIED	VERY SATISFIED	N/A
Procurement systems	1	2	3	4	5	6
Technical support						
Management of other resources (equipment/ machinery, etc.)	1	2	3	4	5	6
Service Delivery	1	2	3	4	5	6
Planning	1	2	3	4	5	6
Tracking	1	2	3	4	5	6
Organizational support						
Governance & Leadership	1	2	3	4	5	6
Vision & Mission	1	2	3	4	5	6
Strategic planning	1	2	3	4	5	6
Linkages	1	2	3	4	5	6

a. For anything rated 1-3, ask, why do you say so?

_____

_____

B8. How satisfied are you with each of the following in regards to the capacity building you received? 5=very satisfied, 1=Very dissatisfied

ASPECT OF KAVES CAPACITY BUILDING SUPPORT	VERY DISSATISFIED	DISSATISFIED	UNDECIDED	SATISFIED	VERY SATISFIED	N/A
The training duration (actual training days)	1	2	3	4	5	6
The timing of KAVES support (right on time, too early, too late)	1	2	3	4	5	6
The frequency and/or intensity of the support	1	2	3	4	5	6
The areas of support received	1	2	3	4	5	6

[BASED ON THE SELECTION OF RESPONSES ABOVE, ASK RESPONDENT TO ELABORATE ON THEIR VIEW BELOW:]

Training duration:

_____

Timing of KAVES support:

_____

Frequency or Intensity of the support:

Areas of capacity building/ training received:

Section C. Results of KAVES Support

Instructions: Capture respondent views on whether core elements were adequately addressed for each of the following functions: (i.e. use an ordinal scale)

C1. As a result of the KAVES project, to what extent do you agree with the following statement? 1= Strongly disagree 5 = Strongly Agree

STATEMENT	STRONGLY DISGAREE	DISAGREE	UNDECIDED	AGREE	STRONGLY AGREE	N/A
We have improved our recordkeeping	1	2	3	4	5	6
We have improved target setting	1	2	3	4	5	6
We have increase in sales volumes	1	2	3	4	5	6
We have increase in profit margins	1	2	3	4	5	6
We have gained entry into new markets/regions	1	2	3	4	5	6
Increased product/firm awareness among farmers	1	2	3	4	5	6
We have introduced new innovation/new products	1	2	3	4	5	6
We have experienced greater return on investment	1	2	3	4	5	6

C2. What areas or training would you think your organization will need support in going forward? 5=extremely urgent to 1=not urgent at all

	NOT URGENT AT ALL	SOMEWHAT URGENT	URGENT	VERY URGENT	EXTREMELY URGENT	N/A
Administrative support						
Admin management systems	1	2	3	4	5	6
Financial management (budgeting, accounting, financial security)	1	2	3	4	5	6
Human Resource Management (staffing, skills)	1	2	3	4	5	6

	NOT URGENT AT ALL	SOMEWHAT URGENT	URGENT	VERY URGENT	EXTREMELY URGENT	N/A
Management of other resources (equipment/ machinery, etc.)	1	2	3	4	5	6
Technical support						
Service Delivery	1	2	3	4	5	6
Planning	1	2	3	4	5	6
Tracking	1	2	3	4	5	6
Organizational support						
Governance & Leadership (I.E. Address Gender)	1	2	3	4	5	6
Vision & Mission	1	2	3	4	5	6
Linkages (I.E. Address Gender)	1	2	3	4	5	6

C3. Based on the support provided by KAVES, what is the most significant improvement in your business operation?

_____

_____

_____

C4. Based on the support provided by KAVES, what is the one area of support that you feel your business/ organization/ enterprise could benefit from?

_____

_____

_____

C5. Based on your interactions with KAVES/ KAVES partners, what is the one area that you would like to see improved?

_____

_____

_____

ANNEX 4. LIST OF DOCUMENTS REVIEWED

The evaluation team reviewed KAVES project documents provided by USAID/Kenya and Fintrac. The main documents consulted are listed below.

Award Documents and Modifications

1. KAVES Contract Section C

M&E Plans Data

2. K-YES Year 1 M&E Plan
3. K-YES Year 2 M&E Plan

Work Plans

4. Workplan 2013
5. Workplan 2014
6. Workplan 2015
7. Workplan 2016

MEL plans

8. KAVES MEL plan 2013
9. Revised KAVES MEL plan 2016
10. KAVES MEL plan-Final

Project Reports (Monthly, Quarterly and Annual)

Survey Reports

11. Baseline Report 2013
12. Survey Report 2014
13. Survey Report 2015
14. Survey Report 2016
15. Survey Report 2017

Annual Reports

16. KAVES Annual Report 2013
17. KAVES Annual Report 2014
18. KAVES Annual Report 2015
19. KAVES Annual Report 2016
20. KAVES Annual Report 2017

Quarterly Reports

21. Quarterly Report 2013 Q2
22. Quarterly Report 2013 Q3

23. Quarterly Report 2014 Q1
24. Quarterly Report 2014 Q2
25. Quarterly Report 2014 Q3
26. Quarterly Report 2015 Q1
27. Quarterly Report 2015 Q2 (GIS Report)
28. Quarterly Report 2015 Q3
29. Quarterly Report 2016 Q1
30. Quarterly Report 2016 Q2
31. Quarterly Report 2016 Q3
32. Quarterly Report 2017 Q1
33. Quarterly Report 2017 Q2
34. Quarterly Report 2017 Q3

Evaluation Reports

35. African Medical Research Foundation Africa (AMREF) (2016) Mid-term Evaluation Report
36. African Medical Research Foundation (AMREF) (2014) Final Evaluation Report
37. Animal Draft Power Program (ADPP) (2014) Evaluation Report
38. Animal Draft Power Program (ADPP) (2016) Midterm Evaluation Report
39. Cereal Growers Association (CGA) (2016) Evaluation Report
40. Carolina Fresh (2015) Close Out Evaluation Report
41. Community Action for Rural Development (2014) Evaluation Report
42. Community Development Consultants (2015) Final Evaluation Report
43. Community Development Consultants (2016) midterm Evaluation Report
44. East Africa Market Development Associates (2014) Evaluation Report
45. East Africa Market Development Associates (2016) Evaluation Report
46. ETC East Africa Ltd (2015) Inception Report for Panel Surveys-Coordination, validation and data Assistance Service
47. ETC East Africa Ltd (2016) Survey Report for Panel Surveys-Coordination, validation and data Assistance Service
48. Farm Concern International (FCI) (2017) Evaluation Report
49. Lengo ADTC (2015) Evaluation Report
50. Kenya Promotions and Marketing Company (2014) Final Evaluation Report
51. Kenya Promotions and Marketing Company Ltd (2015) Mid-term Evaluation Report
52. Ukamba Christian Community Services (UCCS) (2014) Final Evaluation Report
53. Western Region Christian Community Services (WRCCS) (2014) Final Evaluation Report

Other Documentation

54. USAID Nutrition Portfolio Assessment April 2016
55. Kenya's Feed the Future (FTF) 2011-2015 strategy
56. Multi-Stakeholder Evaluation of Agriculture and Livestock Value Chain Activities in Kenya March 29, 2012
57. Kenya Horticulture Competitiveness Project (KHCP) (June 2011 – March 2012) Final Report: Horticulture Retail Audit
58. KHCP – Horticultural Report 2014

59. Sectoral Synthesis of Fy2015 Evaluation Findings Bureau for Economic Growth, Education, and Environment
60. Feed the Future Global Performance (2016), Evaluation Report
61. Kenya Feed the Future Zone of Influence (2013), Baseline Report
62. USAID-KAVES (2013) Value chain Analyses
63. USAID-KAVES (2013-2017) Top 60 KAVES Success Stories
64. USAID (2014-2025) Multi-Sectoral Nutrition Strategy
65. https://www.spring-nutrition.org/technical-areas/sbcc
66. http://www.wageningenportals.nl/nutritionsecurity/topic/behaviour-change-and-nutrition-education
67. http://www.gainhealth.org/wp-content/uploads/2015/04/SBCC_report1_-final_lores.pdf

ANNEX 5: ABRIDGED TEAM BIOS

Mr. John Willsie, Team Leader

Mr. John Willsie is an agri-business expert with unique donor development experience and an extensive evaluation, value chain and private sector business development background. Team Leader or member of numerous evaluations and assessments on behalf of USAID, the World Bank and the European Commission. Decades of private sector management experience and business development. Over a decade of donor development experience with USAID, EU and World Bank Development in Africa, Eastern Europe, Central and South Asia. Thirty years of private sector experience as CEO of producer organizations as well as food processing firms. Direct experience in management of agricultural input cooperatives.

Ms. Irene Wangari Kinuthia, Evaluation Specialist

Ms. Irene Wangari Kinuthia has over 15 years' experience in market and social research in both private and non-governmental organisations. She has extensive experience working with development partners such as the World Bank, IFC, Abts Associates, Plan International, PSI/PS and Kenya Market Trust managing research project among farmers, small and medium business enterprises, general population and professionals. Ms. Kinuthia specializes in research design/research protocol writing, planning, management and implementation; and quantitative and qualitative methodologies. Irene is a holder of Bachelor of Arts (Economics), Monitoring and Evaluation Fundamentals.

Ms. Agnes Waithera, Private Sector Specialist

Ms. Agnes Waithera is an economic research consultant with extensive expertise in agribusiness, financial economics, SME development and value chain analysis. She has extensive experience conducting research-driven evaluation and assessments of agricultural and financial programming in Kenya and the wider East African region. She is a holder of Master of Science Degree in Financial Economics from Jomo Kenyatta University of Agriculture and Technology, 2013 and Bachelor of Commerce, Marketing, Catholic University of Eastern Africa, Nairobi, Kenya, 2006.

Mr. Lewis Karienyeh, Agricultural Economist

Mr. Lewis Karienyeh is an Agricultural Economist with over 10 years of experience working on food and agriculture projects throughout Africa. He brings expertise in rural economic growth, agriculture and food security, microfinance, and monitoring and evaluation. Mr. Karienyeh has consulted with institutions such as the Norwegian Refugee Council, Mercy Corps, Concern Worldwide and African Development Solutions and managed agricultural projects in the private sector. Mr. Karienyeh holds a Master's degree in Agricultural Economics from Egerton University.

Ms. Wairimu Mungai, Agriculture Specialist

Ms. Wairimu Mungai has nearly a decade of experience as an Agribusiness Manager with Allen Valley Ltd., where she oversaw farm production and productivity for both animal and crop husbandry and managed the value chain process across the operation. Previously, Ms. Mungai served in various roles with the USAID/Regional Center for Southern Africa, specializing in program design and monitoring and evaluation. Her expertise spans both the private and non-profit sectors and includes value chain analysis, production management, and program design and evaluation. Ms. Mungai holds a Master of Arts degree in Business Administration from the United States International University in Nairobi, Kenya.

Ms. Sarah Ayodi Shiononya, Nutrition and Health Specialist

Ms. Sarah Ayodi Shiononya is a certified nutritionist, public health specialist and humanitarian worker with over 7 years experience in implementation of integrated nutrition programs in Kenya. She has successfully implemented and managed nutrition projects funded by various donors including USAID, OFDA, UNICEF, WFP, GIZ, Tearfund and Ericks Sjalpen. Ms Shiononya's experience ranges from managing donor relations, proposal writing, project management, monitoring and evaluation of integrated nutrition projects, working with the Ministries of Health and Agriculture at the National and the county levels. Sarah is a holder of Bachelor's Degree in Food Science, Nutrition and Dietetics from the University of Nairobi.

Ms. Geraldine Kaari Nthiga, Nutrition and Health Specialist

Ms. Geraldine Kaari Nthiga has over 10 years of experience in Nutrition and Health Advocacy, Health System Strengthening, Information Management, Monitoring and Evaluation, Nutrition Surveillance and Food Security, Research techniques, Nutrition Programming, Implementation and Coordination and Maternal, Infant and Young Child Nutrition. Geraldine holds a Master's Degree in International Cooperation & Humanitarian Aid (MDICHA)

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