

# Kenya Crops and Dairy Market Systems Activity

## FY 2019 Annual Report



# FEED THE FUTURE -KENYA CROPS AND DAIRY MARKET SYSTEMS ACTIVITY

## ANNUAL REPORT, FY 2019

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#### Photo Caption:

Front Cover: Various USAID-KCDMS activities in the counties:

1. Photo1: [REDACTED] on her 0.25 acre of improved sweet potato varieties in [REDACTED] village, [REDACTED] County.
2. Photo 2: [REDACTED] on her 0.75-acre desmodium bulking plot in [REDACTED] village, [REDACTED] County. [REDACTED] feeds the nutritious fodder to her three-months in calf cow.
3. Photo 3: [REDACTED], a youth farmer on his brachiaria plot in [REDACTED] village in [REDACTED] County.
4. Photo 4: [REDACTED] of [REDACTED] village in [REDACTED] County holding one of his 250 brachiaria bales. [REDACTED] sold over 1,000 bales for USD. 3,000 during the year.

Photo credits: USAID-KCDMS activity

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## ACRONYMS AND ABBREVIATIONS

|         |   |
|---------|---|
| AAER    | Adopt-Adapt-Expand-Respond                            |
| AFC     | Agriculture Finance Corporation                       |
| AI      | Artificial Insemination                               |
| AOR     | Agreement Officer Representative                      |
| APS     | Annual Program Statement                              |
| ASGTS   | Agriculture Sector Growth and Transformation Strategy |
| AVCD    | Agriculture Value Chain Development                   |
| B2B     | Business to Business                                  |
| BDS     | Business Development Services                         |
| CBO     | Community-Based Organizations                         |
| CGA     | Cereal Growers Association                            |
| CIDPs   | County Integrated Development Plan                    |
| CLA     | Collaborating, Learning and Adapting                  |
| COP     | Chief of Party  |
| DCOP    | Deputy Chief of Party                                 |
| DQA     | Data Quality Assessment                               |
| EAMDA   | East Africa Market Development Associates             |
| FAO     | Food and Agriculture Organization                     |
| FAW     | Fall Army Worm  |
| FIPS    | Farm Inputs Promotions Africa                         |
| FPC     | Fresh Produce Consortium of Kenya                     |
| FPEAK   | Fresh Produce Exporters Association of Kenya          |
| FSP     | Financial Strengthening Plan                          |
| FTF     | Feed the Future                                       |
| GFSS    | Global Food Security Strategy                         |
| GOK     | Government of Kenya                                   |
| HCD     | Horticulture Crops Directorate                        |
| HR1     | High Rainfall 1                                       |
| ICT     | Information Communication and Technology              |
| ILRI    | International Livestock and Research Institute        |
| IP      | Implementing Partners                                 |
| IPM     | Integrated Pest Management                            |
| J2SR    | Journey to Self-Reliance                              |
| JAS     | Joint Agriculture Secretariat                         |
| JASSCOM | Joint Agriculture Sector, Steering Committee          |
| KALRO   | Kenya Agriculture and Livestock Research Organization |
| KAP     | Knowledge, Attitude and Practice                      |
| KCB     | Kenya Commercial Bank                                 |
| KCDMS   | Kenya Crops and Dairy Market Systems                  |
| KDB     | Kenya Dairy Board                                     |
| KFC     | Kenya Flower Council                                  |
| KNCCI   | Kenya National Chamber of Commerce and Industry       |
| K-YES   | Kenya Youth Employment and Skills                     |
| LGDF    | Local Governance Development Framework                |
| LREB    | Lake Region Economic Bloc                             |
| MCA     | Members of the County Assembly                        |
| MCI     | Making Cents International                            |
| MEL     | Monitoring, Evaluation, and Learning                  |
| MoALF   | Ministry of Agriculture, Livestock, and Fisheries     |
| MOU     | Memorandum of Understanding                           |
| MSD     | Market Systems Development                            |
| MSMEs   | Micro, Small and Medium Enterprises                   |
| MT      | Metric Tons   |
| NGOs    | Non-Governmental Organizations                        |

---

|       |  |
|-------|--|
| NHTS  | National Horticulture Traceability System          |
| NSA   | Non-State Actors                                   |
| PA-1  | Priority Area 1 – Market Systems                   |
| PA-2  | Priority Area 2 - Productivity                     |
| PA-3  | Priority Area 3 - Policy                           |
| PIF   | Partnership and Innovation Fund                    |
| PMP   | Performance Monitoring Plan                        |
| PPDs  | Public, Private Dialogues                          |
| PSDAG | Private Sector Driven Agricultural Growth          |
| Q3    | Quarter Three                                      |
| RFA   | Request for Application                            |
| SA2   | Semi-Arid 2  |
| SACCO | Savings and Credit Cooperative Society             |
| SEKEB | South East Kenya Economic Bloc                     |
| SI    | Social Inclusion                                   |
| SMEs  | Small and Medium Enterprises                       |
| STTA  | Short Term Technical Assistance                    |
| TEC   | Technical Evaluation Committee                     |
| TOC   | Theory of Change                                   |
| TOT   | Train of Trainers                                  |
| TVET  | Technical and Vocational Education Training        |
| USAID | United States Agency for International Development |
| USD   | United States Dollars                              |
| VBA   | Village Based Advisors                             |
| VC    | Value Chain  |
| VSLA  | Village Savings and Loans Associations             |
| ZOI   | Zone of Influence                                  |

## EXECUTIVE SUMMARY

The Feed the Future Kenya Crops and Dairy Market Systems Activity, hereafter referred to as KCDMS, is a five-year (October 2017– September 2022) USAID program, funded as part of Feed the Future, the U.S. Government’s global hunger, and food security initiative. KCDMS aims to strengthen market systems in Kenya for horticulture and dairy. RTI International leads the activity in partnership with East Africa Market Development Associates (EAMDA), Farm Inputs Promotion Africa (FIPS), Making Cents International, Open Capital Advisors, International Livestock Research Institute (ILRI), and the Busara Centre for Behavioral Economics. This report gives an account of the progress in activity Year 2 (October 1, 2018, to September 30, 2019). In this reporting period, KCDMS achieved significant progress towards key milestones. Targeted market systems are showing positive indications of changes that will enable sustainable, agriculture-led economic growth, well-nourished populations, and increased self-reliance.

Key achievements include:

- 79,392 new individuals in Year 2 (cumulative total of 105,651) participating in KCDMS activities such as agricultural trainings and market linkages. Of these, 14% were youth (age 15-29), and 53% were women.
- Collaborative partnerships with all 12 county governments to address policy issues that constrain private agricultural investment and value chain growth.
- Facilitative, co-investment grants to 63 private sector organizations including exporters, aggregators, farmer cooperatives, input suppliers, technology suppliers, nutrition promoters, as well as youth and women-led enterprises, to expand in response to market opportunities across all KCDMS counties and value chains.
- Partnerships with over 3,800 additional private sector organizations in activities such as access to finance, commercial linkages to markets, services, and technology suppliers, business development services (BDS), ICT support, farmer profiling and training, and establishment of demonstration sites.
- \$10,559,519 in sales of participating firms and farms in Year 2.
- 4,736 market actors accessed agricultural credit worth \$2,434,443 in Year 2. The loans primarily supported investments in the purchase of inputs, seeds, fertilizer, and equipment for mango and fodder, heifers for dairy farming, and solar lamps for general farm use.

Year 2 was foundational for KCDMS; through careful cultivation of partnerships with public and private actors, the activity laid the groundwork for a ramp up of transformational and layered interventions in Years 3 and 4. Because KCDMS uses a facilitative approach, most activities are implemented through private sector actors, and therefore KCDMS farm household beneficiaries are often their clients or suppliers—determined by the market, not the project. The sustainability of our efforts depends on selecting the right private partners and designing support in a way that catalyzes, rather than displaces, private investment, which takes time to ensure. With 63 active grants and more than 30 in final stages of negotiation, KCDMS has identified our beneficiary farming communities and is beginning to layer additional interventions to maximize our depth of impact. These include nutrition behavior change communications, VSLA strengthening, access to finance and market linkages, agro-dealer strengthening, service market development, media support, and farmer cooperative capacity building. This will test the KCDMS hypothesis that reaching households with a holistic set of interventions to address multiple constraints will have a greater impact on poverty reduction than reaching a greater breadth of households with minimal intervention aimed at only one constraint.

Year 2 highlights from each of the five KCDMS priority areas are summarized below.

**Priority Area 1: Competitive, Inclusive, and Resilient Market Systems.** In addition to direct support for the expansion and strengthening of private sector actors, KCDMS has contributed to multi-actor activities that strengthen the overall system. Stakeholder forums and commercial linkages between producer groups, off-takers, finance, and equipment service providers have strengthened market relationships and contributed to improved information flow in target value chains. KCDMS has observed

an increasing number of MoUs and agreements among participating actors indicating sustainable commercial relationships, a key systemic change needed for sustainable agri-led economic growth. We have also seen success in expanding access to agricultural finance, both through direct partnerships with microfinance institutions and through financial linkage activities, which have led to ten different financial institutions lending to new clients in target value chains.

**Priority Area 2: Diverse Agricultural Production and Improved Productivity.** KCDMS has facilitated access to improved planting materials and agronomic training through our private sector partners. In particular, in Year 2, our partners produced and marketed over 500,000 avocado and mango seedlings and 1,011 acres worth of fodder seed and splits to farmers. Fodder production has proven to be a profitable and popular venture; KCDMS has engaged more than 20,000 farmers in fodder production to date, 1,600 of whom are youths. To unlock the European export market, KCDMS has mobilized a multi-stakeholder technical working group comprised of public and private actors to adopt and implement a two-year fruit fly free zone campaign (FFFZ) strategy in Makueni county.

**Priority Area 3: Policy Environment for Market Systems Development.** KCDMS continues to support all counties to address the recommendations from the Institutional Architecture Assessment (IAA) and Public-Private Dialogue (PPD) reports. KCDMS is currently facilitating IAAs on the secretariat of the regional blocks for Eastern counties (SEKEB) and Western counties' (LREB) to identify gaps and draw a road map for addressing the gaps in a manner that will allow for better business enabling environments for increased investment and self-reliance of the counties. KCDMS partnered with East Africa Grain Council (EAGC) to develop and gazette quality standards for Hermetic Storage (HST) bags, which help reduce post-harvest losses and increase food safety.

**Priority Area 4: Integration of Women and Youth into Agricultural Market Systems.** KCDMS has mainstreamed youth and women into all interventions, achieving 55% female participation and 11% youth participation. KCDMS collaborated with USAID's Kenya Youth Employment and Skills (KYES) activity to train 695 youth in agri-preneurship and facilitate access to loans for youth groups. Also in Year 2, KCDMS launched a VSLA strengthening program which is expected to reach over 7,200 members of women's and youth groups with increased financial services.

**Priority Area 5: Collaborative Action and Learning for Market Systems Change.** KCDMS finalized its Learning Agenda which will guide several studies and learning activities already underway for Year 3 to strengthen our implementation and build the evidence base for market systems development. Additionally, KCDMS has onboarded and mentored 63 grantees to promote stakeholder-driven data collection and the use of data for business decision making.

**Operations:** KCDMS systems have become more formalized and streamlined in Year 2. Through the Partnerships and Innovations Fund, the Activity has reviewed over a thousand concept notes from market actors and incorporated financial capacity building into grant activities to expedite implementation. Additional staff have been recruited and trained to support implementation. The activity underwent an RTI internal audit, a USAID Financial Review, and a USAID Data Quality Assessment in Year 2 and is continuously identifying opportunities for improvement.



## 1 INTRODUCTION

This document covers FY 2019 (October 2018 to September 2019) of the Feed the Future Kenya Crops and Dairy Market Systems Activity (KCDMS). KCDMS seeks to contribute significantly to the achievement of the GFSS goals of poverty reduction, enhanced nutrition, social inclusion, and resilience in Kenya; and adheres to the new initiatives described as the Journey to Self-Reliance (J2SR); especially that of private sector engagement. KCDMS' core approach to achieving these objectives is by strengthening market systems with local partners, enabling farmers to intensify and diversify into higher-value crops, and building capacity for value-added activities, off-farm employment and agricultural enterprises. The Activity builds on the results of the initial round of Kenya Feed the Future projects, which introduced new technologies, identified opportunities for growth, and supported training to build awareness and foster adoption by farmers. The Activity applies a facilitative approach, working through a local partner concept with committed public and private market actors best positioned to drive positive change and self-reliance that will reverberate throughout the system.

The KCDMS Activity targets 12 of the initial 22 FtF counties with the highest poverty index scores. In these counties, KCDMS' focus value chains are under-commercialized, yet show high potential for growth. Pre-intervention analysis of the counties and value chains revealed systemic constraints to sustainable economic growth. At the smallholder farmer level, constraints include low on-farm productivity and dependence on traditionally grown crops. Resulting low volumes, limited access to and usage of inputs, and generally poor agronomic practices contribute to low participation in agricultural markets. At the market level, systemic constraints include:

- Unstructured and unreliable markets;
- Inconsistent supply of poor-quality produce;
- Poor infrastructure, transportation, and warehousing services leading to high post-harvest losses;
- Poor and imbalanced information flow on demand and supply of produce and services;
- Poor penetration of support services technologies;
- Market distortions and crowding out of the private sector resulting from donor-funded programs and county governments' provision of free planting materials;
- Lack of compliance with certification and traceability requirements required by the export market; and
- Weak enabling policy environment, including unregulated county cess charged at county border points.

The Activity targets 12 focus counties: Kitui, Makueni, Taita Taveta, Homa Bay, Migori, Kisii, Kisumu, Siaya, Kakamega, Bungoma, Busia, and Vihiga. Priority crops include dairy, feed and fodder, avocado, banana, mango, passion fruit, pineapple, sweet potato, and African leafy vegetables. Tier 2 crops are still emerging. Those identified include green grams, sorghum, maize, and poultry. Increased emphasis on Tier 2 crops is expected in year 3 with targeted interventions in poultry, green grams, and sorghum.

As a Feed the Future initiative, KCDMS will contribute significantly to the core GFSS strategic objectives, including:

**Objective 1: Inclusive and sustainable agricultural-led economic growth**

**Objective 2: Strengthening resilience among people and systems**

**Objective 3: A well-nourished population, especially among women and children**

KCDMS's primary route to achieving these objectives is by transforming agricultural market systems to enable intensification and diversification into higher-value commodities and non-farm activities. KCDMS is implementing interventions to address the systemic constraints mentioned above. The KCDMS theory of change operates across the Global Food Security Strategy Objectives and posits that growth in agricultural market systems is predicated on the ability of market system actors to take risks at the individual, production, and business levels and to absorb economic, sociopolitical, environmental, and demographic shocks.

Market pull interventions will reduce business risk, and productivity interventions will reduce production risk to enable farmers with profit potential to step up into competitive value chains and branch out into higher-value crops, value-added activities, and off-farm employment and enterprises. The resulting intensification and diversification of horticulture, dairy, feed, and fodder will increase food availability, smooth cash flows, promote dietary diversity, and improve natural resource management.

These interventions lead to higher incomes, better health outcomes, and improved household resilience. Moreover, the transformation of predominantly agricultural areas enables households without on-farm profit potential to step out of agriculture into vibrant rural economies.

The market systems approach which compliments J2SR, focuses on private sector engagement and capacity building along value chains, supplemented with strategic interventions for mobilization and empowerment of women and youth; social behavior change communication to promote greater dietary diversity; policy interventions to improve the business enabling environment; and enhanced access to credit, financial services, and insurance. An essential focus of this approach is the emphasis on long term sustainability of these changes, and eventual self-reliance, rather than short term reactions by market actors to external factors.

The Activity aims to improve the overall agricultural landscape in Kenya for horticulture and dairy, with a focus on five priority areas, including:

- Priority Area 1: Competitive, Inclusive, and Resilient Agricultural Market Systems
- Priority Area 2: Diverse Agricultural Production and Improved Productivity
- Priority Area 3: Policy Environment for Market Systems Development
- Priority Area 4: Integration of Youth and Women into Agricultural Market Systems
- Priority Area 5: Collaborative Action and Learning for Market Systems Change

The report is structured to cover each of these areas.

The following table summarizes KCDMS progress against indicator targets for Year 2.



*A three hour-old calf at Peter Okeng'a farm in Lwanda Vihiga County, conceived with AI by AISP through the KCDMS activity with support to the Lwanda AISP Business Club. Photo: KCDMS/ Boniface Musembi*

## FY2019 Progress against overall KCDMS indicator targets

| No | Indicator Source | INDICATOR LISTING   | Targets 2018 | Results 2018 | % Achieved 2018 | Targets 2019 | Results 2019 | % Achieved 2019   | LOP Target | Cumulative Results To-Date | % Achieved vs LOP |
|----|------------------|---|--------------|--------------|-----------------|--------------|--------------|-------------------|------------|----------------------------|-------------------|
| 1  | EG.3-2           | Number of individuals participating in USG food security programs   | 20,307       | 26,259       | 129%            | 69,772       | 79,392       | 114% <sup>1</sup> | 354,925    | 105,651                    | 30%               |
|    |                  | New + Continuing  | 20,307       | 26,259       | 129%            | 81,956       | 101,435      | 124% <sup>2</sup> |            |                            |                   |
| 2  | YOUTH - 3        | Percentage of participants in USG assisted programs designed to increase access to productive economic resources who are youth (15-29)                    | 5%           | 11%          | 220%            | 15%          | 14%          | 93%               | 25%        | 14%                        | 56%               |
| 3  | GENDER - 2       | Percentage of female participants in USG-assisted programs designed to increase access to productive economic resources [IM-level]                        | 40%          | 55%          | 138%            | 42%          | 67%          | 160% <sup>3</sup> | 48%        | 67%                        | 140%              |
| 4  | FTF 01           | Estimated number and percentage of FTF beneficiaries holding 5 hectares or less of arable land or equivalent units of livestock (smallholders) [IM Level] | 85%          | <b>83%</b>   | 98%             | 85%          | 99%          | 116% <sup>4</sup> | 90%        | 99%                        | 110%              |
| 5  | KCDMS custom 1   | Number of organizations participating in USG food security programs   | 2,113        | 2876         | 136%            | 287          | 962          | 335% <sup>5</sup> | 4,874      | 3,838                      | 79%               |

<sup>1</sup> The number of participating individuals is higher than expected in 2019 due to successful informal and formal linkages with non-grantee stakeholders.

<sup>2</sup> Due to the increase in participating individuals the level of continuing participation from year 1 is higher than expected.

<sup>3</sup> Many of the MFIs we collaborated with have a heavy emphasis on availing credit to women resulting in a higher proportion than expected in 2019. Going forward, as we strive to increase agricultural lending among larger financial institutions, we expect this percentage to decrease slightly as reflected in our targets

<sup>4</sup> KCDMS has been successful in targeting smallholder farmers through our stakeholders in 2018 and 2019. Goring forward it is expected that our stakeholders will be working with some larger commercial farmers as reflected in our targets.

<sup>5</sup> Due to growing interest in the KCDMS activity, attributed to the success of the B2Bs, trade fairs, and county forums, the program has attracted a significant following amongst dairy and crop cooperatives and SMEs. A large part of the organizations counted here are agro-vets including the over 1500 agro-vets trained by CGA on a KCDMS contract to control Fall Army Worm, reduce aflatoxin, and promote hermetic sealed technology to reduce post-harvest loss.

| No | Indicator Source | INDICATOR LISTING  | Targets 2018 | Results 2018 | % Achieved 2018 | Targets 2019 | Results 2019 | % Achieved 2019   | LOP Target    | Cumulative Results To-Date | % Achieved vs LOP |
|----|------------------|--|--------------|--------------|-----------------|--------------|--------------|-------------------|---------------|----------------------------|-------------------|
|    |                  | New + Continuing   | 2,113        | 2876         | 136%            | 1,554        | 1,732        | 111% <sup>6</sup> |               |                            |                   |
| 6  | EG.3.2-27        | Value of agriculture related financing accessed as result of USG assistance [IM-Level]   | \$50,000     | \$69,211     | 138%            | \$2,441,281  | \$2,434,443  | 100%              | \$14,643,496  | 2,503,654                  | 17%               |
| 7  | KCDMS Custom 2   | Number of micro, small, and medium enterprises (MSMEs), including farmers, receiving agricultural-related credit as a result of USG assistance | 10           | 17           | 170%            | 16,934       | 4,736        | 28% <sup>7</sup>  | 38,754        | 4,753                      | 12%               |
|    |                  | New + Continuing   | 10           | 17           | 170%            | 16,934       | 4,753        | 28%               |               |                            |                   |
| 8  | EG.4.2-7         | Number of individuals participating in group-based savings, micro-finance or lending programs with USG assistance [IM-level]                   | N/A          | N/A          | N/A             | 5,419        | 0            | 0%                | 21618         | 0                          | 0%                |
| 9  | EG.3.1-14        | Value of new USG commitment and private sector investment leveraged by the USG to support food security and nutrition.                         | \$50,000     | \$69,211     | 138%            | \$4,897,300  | \$4,043,414  | 83% <sup>8</sup>  | \$28,646,255  | 4,112,625                  | 14%               |
| 10 | EG.3.2-26        | Value of annual sales of farms and firms receiving USG assistance [IM-level]   | \$48,969     | \$149,684    | 306%            | \$39,697,711 | \$10,559,519 | 27% <sup>9</sup>  | \$161,618,728 | 10,709,203                 | 7%                |

<sup>6</sup> See footnote #7

<sup>7</sup> Access to finance programs start in 4<sup>th</sup> quarter FY 2019 and will gain traction in FY 2020. PIF grants, BDS services and MFI MOUs with KCDMS will have a significant impact on access to finance results in Y3.

<sup>8</sup> Private sector investment as determined by the PIF cost-share program is lower than expected with private companies participating for the first time, and gradually gaining traction on internal expenditure as well as grant spending protocol.

<sup>9</sup> Delays in grant startups caused several companies to miss the 2018 harvest season. With many current grant companies being extended into FY 2020, and with the addition of new grants in the pipeline coming online in the next few weeks, sales and other PIF related indicator results will improve significantly in FY 2020.

| No | Indicator Source   | INDICATOR LISTING   | Targets 2018 | Results 2018 | % Achieved 2018 | Targets 2019 | Results 2019 | % Achieved 2019   | LOP Target | Cumulative Results To-Date | % Achieved vs LOP |
|----|--------------------|---|--------------|--------------|-----------------|--------------|--------------|-------------------|------------|----------------------------|-------------------|
| 11 | EG 3.2-29          | Number of organizations with increased performance improvement with USG assistance  | N/A          | N/A          |                 | 48           | 0            | 0%                | 5%         | 0                          | 0%                |
| 12 | KCDMS Custom 3     | Number of organizations adopting improved management practices or technologies or any other organization improvement with USG assistance      | N/A          | N/A          |                 | 30           | 28           | 93%               | 1,068      | 28                         | 3%                |
| 13 | EG.3.2-24          | Number of individuals in the agriculture system who have applied improved management practices or technologies with USG assistance [IM-level] | 5,394        | 9,729        |                 | 49,180       | 31,328       | 64% <sup>10</sup> | 205,405    | 41,057                     | 20%               |
|    |                    | New + Continuing  | -            |              |                 | 68,852       | 39,598       | 58%               |            |                            |                   |
| 14 | EG.3.2-25          | Number of hectares under improved management practices or technologies with USG assistance [IM-level]   | 1,604        | 608          |                 | 15,945       | 10,242       | 64% <sup>11</sup> | 47,236     | 10,850                     | 23%               |
|    |                    | Hectares under production for (New+ Continuing) adopters  | 1,605        | 608          |                 | 22,455       | 10,850       | 48%               |            |                            |                   |
| 15 | EG. 3-10, -11, -12 | Yields of targeted agricultural commodities among program participants with USG assistance -  |              |              |                 |              |              |                   |            |                            |                   |
|    |                    | Dairy Yields  | N/A          | N/A          |                 | 6.9          | 5.92         | 86% <sup>12</sup> | 7.8        | 5.9                        | 76%               |
|    |                    | Mango yields  | N/A          | N/A          |                 | 21.2         | 24           | 113%              | 22.6       | 24.0                       | 106%              |

<sup>10</sup> In a manner similar to the process of setting targets for sales, the targets for adoption were based on a rough estimate of the proportion of farmers in the value chain in each county. Now that the private sector grants program has rolled out, we have a much better idea of the number of participating farmers and the level of adoption we can expect to achieve.

<sup>11</sup> The area under improved practices is directly proportional to the number of farmer adopters. Failing to achieve the number of adopters, leads directly to underachievement in area under improved practices.

<sup>12</sup> The level of dairy intervention was less intensive than expected in year two due to delays in rolling out BDS and grant support to the dairy cooperatives. For this reason, adoption of productivity enhancing technologies in dairy did not meet expectations. The intensive support and extension planned for Y3 is expected to have a significant impact on milk yields.

| No | Indicator Source | INDICATOR LISTING  | Targets 2018 | Results 2018 | % Achieved 2018 | Targets 2019 | Results 2019 | % Achieved 2019    | LOP Target | Cumulative Results To-Date | % Achieved vs LOP |
|----|------------------|--|--------------|--------------|-----------------|--------------|--------------|--------------------|------------|----------------------------|-------------------|
|    |                  | Avocado yields   | N/A          | N/A          |                 | 20.5         | 36           | 176% <sup>13</sup> | 22.6       | 36.0                       | 159%              |
| 16 | KCDMS Custom 3   | Number of individuals engaged in value chain services provision, diversification and stepping out into non-agriculture rural economies as result of USG assistance | 0            | 118          | 100%            | 4,448        | 1,082        | 82% <sup>14</sup>  | 2,989      | 1,200                      | 40%               |
|    |                  | New + Continuing   | 0            | 118          | 100%            | 4,448        | 1,082        | 82%                |            |                            |                   |
| 17 | EG.3.3-10        | Percentage of female participants of USG nutrition-sensitive agriculture activities consuming a diet of minimum diversity [IM-level]                               | 40%          | 40%          | 100%            | 40%          | 47%          | 118% <sup>15</sup> | 60%        | 47%                        | 78%               |
| 18 | HL.9-2           | Number of children (0-23months) reached with community level nutrition interventions through USG supported programs  | 3,249        | 3,899        | 120%            | 11,772       | 1,435        | 12% <sup>16</sup>  | 17,837     | 5,334                      | 30%               |
|    |                  | New + Continuing   | 3,249        | 3,899        | 120%            | 13,769       | 5,334        | 39%                |            |                            |                   |
| 19 | HL.9-15          | Prevalence of children (6-23 months) receiving a minimum acceptable diet   | 20%          | 20%          | 100%            | 25%          | 69%          | 276% <sup>17</sup> | 55%        | 69%                        | 125%              |

<sup>13</sup> Avocado yields were based on a very small number of dedicated farmers in year two who exceeded our expectations. We believe that the larger number of avocado farmers expected to participate in Y3, especially those with newly planted trees, will significantly lower the average yields in the coming year.

<sup>14</sup> The delay in roll out of the AAK SSP program significantly reduced the expected numbers projected for this year

<sup>15</sup> Better than expected results are due to the addition of KiWash groups that participated a long-term nutrition training program before joining KCDMS.

<sup>16</sup> This result was to be expected, based on KCDMS sequencing. The Activity started by identifying the households in our target supply chains, based on grantee selection, with household nutrition training scheduled in the coming weeks through several nutrition subawards.

<sup>17</sup> The level of dietary diversity for children under two in 2019 was higher than expected according to the baseline. We believe the reason is because most of the 2019 households reached were originally participating in Kiwash groups that had been trained repeatedly for several years. Even though our nutrition program will be intensifying in year 3 we don't expect to see that level repeated for the newly "first-time" trained households.

| No | Indicator Source | INDICATOR LISTING   | Targets 2018 | Results 2018 | % Achieved 2018 | Targets 2019 | Results 2019 | % Achieved 2019    | LOP Target | Cumulative Results To-Date | % Achieved vs LOP |
|----|------------------|---|--------------|--------------|-----------------|--------------|--------------|--------------------|------------|----------------------------|-------------------|
| 20 | KCDMS Custom 6   | Number of women who report improved participation in HH decision making on value chain-investment/expenditure as a result of USG assistance.  | N/A          | N/A          | -               | 10,623       | 14,587       | 137% <sup>18</sup> | 68,493     | 14,587                     | 21%               |
| 21 | EG.3.1-d         | Number of milestones in improved institutional architecture for food security policy achieved with USG support [National-Level]   | 12           | 12           | 100%            | 36           | 50           | 139% <sup>19</sup> | 164        | 79                         | 29%               |
| 22 | KCDMS Custom 6   | Number of agricultural and nutritional enabling environment policies/regulations/processes/norms analyzed, consulted on, drafted or revised, approved, and implemented/ altered with USG assistance | 2            | 2            | 100%            | 4            | 20           | 500% <sup>20</sup> | 82         | 22                         | 27%               |

<sup>18</sup> We are pleased that the level of empowerment that women would feel as a result of their involvement in the value chain interventions was higher than anticipated. We hope this trend continues with our various household-level initiatives.

<sup>19</sup> The KCDMS policy program is collaborating very well with county governments who appear committed to their internal development.

<sup>20</sup> The KCDMS policy program is collaborating very well with county governments who appear committed to their internal development.

## 2 COUNTY PARTNERSHIPS

In alignment with the Journey to Self-Reliance, KCDMS's approach to market systems development hinges on the principles of sustainability and self-reliance. KCDMS believes that direct implementation can create dependency and fails to create sustainable change beyond the life of the activity. Instead, KCDMS partners with private sector players who have the commitment and the commercial incentive to co-invest in innovative solutions that generate a commercial gain and favorable return on investment, creating long term commercial relationships with the smallholder farmers that enhance productivity, income, and nutrition. KCDMS anticipates that the participating private sector players, as they realize gains from these investments, will scale up operations with smallholder farmers in geographies and commodities beyond the KCDMS focus. Other private sector players, recognizing commercial opportunities, will crowd into the same practices, and additional smallholder farmers will copy what their successful neighbors do. KCDMS also works with relevant industry-level business associations at county and national levels to collectively address barriers to trade and market systems transformation. Some of the signs of sustainable development and market transformation are captured and narrated using the Adopt-Adapt-Expand-Respond framework<sup>21</sup> in the CLA section of this report. KCDMS will undertake a range of studies starting in Y3 to support evidence-based decision making to support resilience as part of our Learning Agenda.

KCDMS contributes significantly towards National and County Governments' capacity to plan, finance, and implement solutions to challenges to agriculturally led economic development by positively influencing change in the economic policy/business environment. To do this, KCDMS plays a significant role in advising institutions and initiatives that are strategic for agricultural transformation, such as the Joint Agriculture Sector Steering Committee (JASSCOM) and the Agricultural Sector Transformation and Growth Strategy (ASTGS). At the county level, KCDMS facilitates Private-Public Dialogues (PPD) on policy issues to enhance the business enabling environment. KCDMS facilitated the Institutional Architecture Assessment (IAA) to identify gaps in policy processes and implementation in all 12 KCDMS county governments as well as the secretariats for the Eastern and Western regional economic blocks (SEKEB and LREB). The IAAs have led to the development of strategic frameworks aligned with CIDPs, and the establishment of appropriate mechanisms like the technical working groups hosted by the county governments that also include non-state actors (private sector, farmers, development partners, and civil society institutions) to develop and implement recommended policy reforms.

On the other hand, KCDMS identifies county capacity gaps and facilitates relevant capacity building to enable self-reliance. Building on efforts of GIZ and Africa Lead, KCDMS plans to roll out the 'Super Champions for Change' leadership course for Members of County Assemblies (MCAs) in all 12 counties. The course aims at improving legislation, policy development, and implementation, including decision making regarding investment for agri-led economic growth in the counties.

KCDMS is promoting sustainable economic growth in several horticultural, dairy, feed and fodder market systems/value chains, and Tier 2 commodities important for economic growth in the counties of focus. The following table summarizes key KCDMS results by county. It shows key value chains, number of partners so far, and selected performance-based indicators of sustainability and systemic change.

A county activity summary is illustrated in the table below: A detailed county by county summary of KCDMS policy interventions is presented in Annex III.

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<sup>21</sup> Adopt Adopt Expand Respond framework is a Springfield Centre developed framework to enable development practitioners describe the sustainable systemic changes happening in the market systems that they work in.



| Region  | # key partnering organizations |              | Counties     | Key Value-Chains                          | Performance Progress to date |                        |         |                   |
|---------|--------------------------------|--------------|--------------|---|------------------------------|------------------------|---------|-------------------|
|         | Grantees                       | Non-Grantees |              |   | Number of new participants   | Access to Finance (\$) |         | Annual sales (\$) |
|         |                                |              |              |   |                              | Number of loans        | Value   |                   |
| Eastern | 15                             | 32           | Kitui        | Horticulture, Feed and Fodder             | 2,787                        | 99                     | 65,490  | 118,172           |
|         |                                |              | Makueni      | Horticulture, Feed and Fodder             | 12,485                       | 243                    | 225,428 | 1,336,065         |
|         |                                |              | Taita Taveta | Horticulture, Feed and Fodder             | 2,522                        | 47                     | 51,910  | 552,061           |
| Nyanza  | 13                             | 8            | Homa Bay     | Horticulture, Dairy and Feed, and Fodder  | 2,575                        | 786                    | 105,547 | 842,515           |
|         |                                |              | Migori       | Horticulture, Dairy and Feed and Fodder   | 2,490                        | 272                    | 54,270  | 1,135,915         |
|         |                                |              | Kisii        | Horticulture, Dairy and Feed, and Fodder  | 3,745                        | 420                    | 605,247 | 1,148,865         |
|         |                                |              | Kisumu       | Horticulture, Dairy, and Feed, and Fodder | 2,030                        | 105                    | 211,697 | 818,709           |
|         |                                |              | Siaya        | Horticulture, Dairy and Feed, and Fodder  | 2,682                        | 241                    | 124,276 | 103,600           |
| Western | 9                              | 23           | Bungoma      | Horticulture, Dairy and Feed and Fodder   | 18,155                       | 785                    | 617,514 | 2,567,954         |
|         |                                |              | Busia        | Horticulture, Dairy and Feed, and Fodder  | 2,039                        | 53                     | 41,530  | 395,640           |
|         |                                |              | Kakamega     | Horticulture, Dairy and Feed and Fodder   | 22,526                       | 942                    | 148,565 | 1,352,076         |
|         |                                |              | Vihiga       | Horticulture, Dairy and Feed and Fodder   | 5,264                        | 742                    | 182,969 | 107,486           |

### 3 COMPETITIVE, INCLUSIVE AND RESILIENT AGRICULTURAL MARKET SYSTEMS

KCDMS continued working with private and public actors (grantees and non-grantees, county institutions, business associations) towards the achievement of their commitments to key systemic changes envisaged under the KCDMS dairy and horticulture strategy. These are willing institutions best positioned to drive positive changes that will reverberate throughout the system by continuously identifying the incentives, attitudes, capacities, and practices that stimulate market players to invest in higher productivity, quality improvements, greater efficiency, and commercial relationships with other value chain actors. The stronger business relationships created by these initiatives are leading to increased social capital and inclusive economic growth. The KCDMS desired outcomes under this priority area are:

- Emergence/expansion of smallholder-dominated market systems linking farmers and farmer groups to SME buyers
- Expansion and development of lead firms and other (up- and downstream) agribusinesses to better manage their businesses
- Expansion of local, regional, national, and international trade that increases market demand from smallholder supply chains
- Transformation of market system actors' relationships to enhance cooperation, shared values, constructive competition, and trust
- Inclusive and competitive markets

#### *Key highlights in 2019*

During the year under review, KCDMS facilitated expanded commercial linkages between partner enterprises and farmer/suppliers of products and services for both local and international markets. These were catalyzed by county-based trade fairs, uptake of ICT and BDS for improved capacity and efficiency, access to finance linkages for business operations, support to the operationalization of the Horticulture Traceability Systems (HTS), and support to industry associations (dairy and horticulture) to better serve their members. These factors significantly contributed to the positive outcome indicator results below. Out of the commercial linkages and other market systems facilitation events, KCDMS realized the sale of commodities, inputs, and services worth **\$10,559,519**.

In addition, a total of \$2,434,443 of formal credit has been disbursed to organizations and individuals through access to finance interventions. Additional investment to the tune of \$4,043,414 was leveraged through KCDMS facilitation. These results were enabled by the market system activities and changes discussed below.

The tables on the following page presents the sales performance of KCDMS stakeholders in FY 2019:

**Table 6: Value of sales (in KES) transacted by private sector players supported by KCDMS as a result of USG assistance.**

| Region      | Dairy       | Feed & Fodder | Horticulture | Assorted Farm Inputs and Others <sup>22</sup> | Poultry   | Total (KES)   |
|-------------|-------------|---------------|--------------|---|-----------|---------------|
| Nyanza      | 112,903,391 | 82,334,939    | 75,179,365   | 137,356,039                                   | -         | 407,773,734   |
| Western     | 62,131,319  | 4,237,339     | 186,315,926  | 184,261,051                                   | -         | 436,945,635   |
| Eastern     | 55,856,316  | 8,748,248     | 132,913,317  | 10,420,659                                    | 3,294,000 | 211,232,540   |
| Total (KES) | 230,891,025 | 95,320,526    | 394,408,608  | 332,037,749                                   | 3,294,000 | 1,055,951,909 |
| Total (\$)  | 2,308,910   | 953,205       | 3,944,086    | 3,320,377                                     | 32,940    | \$10,559,519  |

**Table 7: Value of sales (in KES) by county and value chain transacted by private sector players supported by KCDMS**

| County           | Mango             | Avocado           | Dairy              | Passion Fruit     | Sweet Potato      | Feed & Fodder     | ALVs             | Banana             | Inputs and Others  | Poultry          | Total KES            | Total \$            |
|------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|------------------|--------------------|--------------------|------------------|----------------------|---------------------|
| Bungoma          | 1,155,494         | 28,922,042        | 28,776,729         | -                 | 2,818,904         | 1,434,147         | 291,300          | 24,873,749         | 163,178,301        | -                | <b>251,450,666</b>   | \$2,514,507         |
| Busia            | 96,900            | 871,950           | 12,031,350         | -                 | 5,481,040         | -                 | -                | -                  | 21,082,750         | -                | <b>39,563,990</b>    | \$395,640           |
| Homa Bay         | 207,160           | 95,902            | 32,441,905         | 45,000            | 3,789,555         | 31,647,522        | 43,700           | 762,226            | 36,129,185         | -                | <b>105,162,154</b>   | \$1,051,622         |
| Kakamega         | 1,670,265         | 45,934,271        | 20,369,364         | 3,488,140         | 4,087,468         | 1,604,440         | 861,000          | 56,610,394         | -                  | -                | <b>134,625,342</b>   | \$1,346,253         |
| Kisumu           | 4,766,678         | -                 | 7,494,880          | 11,231,642        | 17,760            | 1,419,416         | 267,600          | 5,284,491          | 25,681,538         | -                | <b>61,713,725</b>    | \$617,137           |
| Kisii            | 4,897,600         | 13,427,300        | 29,561,097         | 2,114,900         | 1,126,000         | 46,397,030        | 3,700            | 17,158,624         | 7,035,710          | -                | <b>116,172,241</b>   | \$1,161,722         |
| Kitui            | 9,827,056         | 1,206,239         | 612,983            | 13,053            | -                 | -                 | 44,500           | -                  | 107,010            | 74,000           | <b>11,884,840</b>    | \$118,848           |
| Makueni          | 70,444,769        | 876,761           | 37,821,887         | 424,080           | 6,716             | 5,888,248         | 1,391,122        | 4,361,625          | 9,413,649          | 3,220,000        | <b>133,848,857</b>   | \$1,338,489         |
| Migori           | 253,196           | 2,949,406         | 39,687,166         | -                 | 1,332,712         | 733,893           | 71,800           | 931,609            | 68,405,847         | -                | <b>114,365,629</b>   | \$1,143,656         |
| Siaya            | 1,205,195         | -                 | 3,718,344          | 1,460,658         | 1,733,550         | 2,137,079         | 1,400            | -                  | 103,760            | -                | <b>10,359,985</b>    | \$103,600           |
| Taita Taveta     | -                 | 4,162,263         | 17,421,446         | -                 | -                 | 2,860,000         | 13,600           | 40,141,534         | 900,000            | -                | <b>65,498,843</b>    | \$654,988           |
| Vihiga           | 584,652           | -                 | 953,876            | -                 | 4,260             | 1,198,752         | 165,500          | 8,398,597          | -                  | -                | <b>11,305,637</b>    | \$113,056           |
| <b>Total KES</b> | <b>95,108,965</b> | <b>98,446,134</b> | <b>230,891,025</b> | <b>18,777,473</b> | <b>20,397,966</b> | <b>95,320,526</b> | <b>3,155,222</b> | <b>158,522,849</b> | <b>332,037,749</b> | <b>3,294,000</b> | <b>1,055,951,909</b> | <b>\$10,559,519</b> |
| <b>Total \$</b>  | <b>\$951,090</b>  | <b>\$984,461</b>  | <b>\$2,308,910</b> | <b>\$187,775</b>  | <b>\$203,980</b>  | <b>\$953,205</b>  | <b>\$31,552</b>  | <b>\$1,585,228</b> | <b>\$3,320,377</b> | <b>\$32,940</b>  | <b>\$10,559,519</b>  |                     |

<sup>22</sup> Includes farm inputs, AI, farm equipment including post-harvest equipment, service provision etc.

### 3.1 Market systems organization and coordination enhanced

Linkages and enhanced sustainable commercial relationships are key to building resilient market systems. During the year under review, KCDMS continued investing in building sustainable commercial relationships amongst market system players. Specific efforts and key outcomes are discussed below:

***Sustainable and inclusive commercial private sector-led linkages developed via Business to Business (B2B) forums:*** During the year, there was increased mutual understanding between producer groups, buyers, financial and equipment providers, as well as regulators regarding quality requirements, price trends, and pricing of commodities. This resulted from KCDMS efforts of providing necessary incentives to bring actors together and positioning private sector off-takers as anchors in targeted and commodity-specific forums, including B2Bs, trade expos, and finance clinics to linking suppliers to buyers. Table 2 below summarizes participation in KCDMS-supported forums.

| Table 8: Producer and buyer forum participation profile |                           |                      |              |            |            |              |
|---|---------------------------|----------------------|--------------|------------|------------|--------------|
| Region  | No. of forum Participants | Unique Organizations | Male         | Female     | 15-29 Yrs. | > 30 Yrs.    |
| Nyanza  | 1,578                     | 388                  | 1,132        | 446        | 207        | 1,371        |
| Western   | 308                       | 255                  | 224          | 84         | 52         | 256          |
| Eastern   | 496                       | 319                  | 253          | 243        | 59         | 437          |
| <b>Total</b>  | <b>2,382</b>              | <b>962</b>           | <b>1,609</b> | <b>773</b> | <b>318</b> | <b>2,064</b> |

The KCDMS vision is to see private sector actors continually using these forums to create coordination in the demand and supply of commodities leading to the development of sustainable, inclusive and resilient market systems. Table 3 below on activities triggered by private sector off-takers present evidence of improved coordination through trade forums:



*A farmer asking a question during a sweet potato B2B forum held in Kabondo, Homa Bay County.  
Photo: KCDMS/Charlotte Kirui*

*[REDACTED]*

**Coordination and linkage among market actors improved:** During the year under review, KCDMS developed two sets of evidence-based engagement strategies: County strategies and Commodity strategies. These strategies inform engagement with county governments as well as market system players. Evidence was gathered from monitoring data, value chain scoping studies, county Public-Private Dialogues (PPDs), IAA and CIDPs. These strategies outline key activities and planned interventions with buyers, sellers and service providers for each of the eight (8) commodities and the twelve (12) counties. They are living documents that continue to evolve as new relationships emerge. Improved coordination among informal traders, producer groups and service providers is one key outcome.

**Improved operational efficiency via the use of ICT:** KCDMS' continued efforts to stimulate demand for ICT services in dairy and horticulture businesses through the KCDMS ICT Promotion Program with a view to encouraging cooperatives and SMEs to use of ICT services. During the year under review, KCDMS launched the ICT promotion program dubbed 'ICT for Development'. The objective is to stimulate demand for ICT services in targeted dairy and horticulture businesses by facilitating ICT solution providers' engagement with cooperatives and SMEs and encourage cooperatives and SMEs to see ICT services as a potential opportunity to transform businesses by improving operational efficiency.

During the year, 11 agribusinesses adopted ICT for agriculture and commenced working with solution providers to incorporate ICT in their business operations. Outcomes of businesses improvement resulting from the adoption of ICT in business will be monitored starting Q1 of Y3, while applications continue to be rolled out to other adopters.

The following results were achieved:

[REDACTED]

The following initiatives are also in the pipeline under the ICT promotion program and will be actualized in Q1 of Y3:

- i. Additional agribusinesses are applying for KCDMS support to adopt ICT solutions from relevant providers. This automation of the dairy and horticultural companies is set to improve organizations' operational efficiency and customer loyalty by reducing the time taken to enter data and increasing transparency through fraud deterrence manually. The ICT promotion program will continue to roll out in Y3.
- ii. 1,400 agro-dealers (serving a minimum of 100 farmers each) are set to benefit from the adoption of Point of Sale (POS) and distribution management systems through partnership with three Technology providers in inputs supply systems (i-Procure, Acumen, and Kuwekeza). Implementation will begin in November 2019.

During the year, the KCDMS ICT Solution Specialist continued identifying and vetting emerging ICT technology firms with a focus on digital finance, access to markets, and access to information packages fitting KCDMS value chains. KCDMS will continue to introduce these firms to KCDMS grantees and other market actors. Identified ICT firms include Precision Agriculture Development, Arifu, CropIn Technologies, Farmster Technologies, and M-Shamba.

**County Stakeholder forums necessary for value-chain growth:** KCDMS continued to work closely with industry associations and county governments on county or commodity specific multi-stakeholder platforms to drive activities that spur economic growth in the counties and the value chains. These forums culminated into strong business relationships developed between commodity suppliers, financial institutions, equipment and input providers. Below are some of the key forums that KCDMS facilitated during the year:

**Kitui County:** Annual County Stakeholders' field day brought together farmers to gain knowledge on modern farming technologies - 36 organizations, including county agriculture and trade ministries, agricultural development partners, and service providers that exhibited their products and services.

Green Grams Stakeholders Forum bringing together over 140 stakeholders including Research and Development (R&D) institutions, regulators, input suppliers, farmers, processors, buyers, policymakers,

and development partners to network, exchange ideas, and identify solutions to address challenges in the green grams value chain. The forum came up with a steering committee to address five thematic areas; enhanced productivity, post-harvest handling, marketing, value addition, value chain financing, and policy facilitation.

Food safety workshop organized by the USAID funded NHPplus using the System-wide Collaborative Action for Livelihoods and Environment (SCALE+)<sup>23</sup> model. The 3-day workshop discussed potential strategies to develop a common way in addressing food safety issues in Kitui county using the three fundamental SCALE+ principles, i) applying a systems lens, ii) building social capital, and iii) facilitating locally driven development.

**Makueni County:** Makueni Fruit Processors Cooperative in partnership with Kenya Crops and Dairy Market Systems (KCDMS) organized a farmer mini expo to sensitize farmers on pest-free zone initiative and provide a platform for input suppliers to engage producers on relevant seed varieties, fertilizers, and chemicals that will enhance productivity. This forum provided opportunities for the cooperative to share progress and future engagements with farmers and service providers.



*The mango technical working group members pose a photo after a consultation meeting on establishment of a pest free area in Wote, Makueni County. Photo: KCDMS/ [REDACTED]*

**Taita Taveta County:** The County Government of Taita Taveta, Department of Agriculture, Livestock, and Fisheries facilitated an Agricultural Stakeholders forum bringing together development partners, regulatory authorities, county government, and other actors promoting agricultural initiatives in the county. Development partners, regulators and the county government entities presented ongoing efforts in the country to identify potential areas of collaboration. The meeting resulted in the development of a county agricultural stakeholder steering committee and a matrix highlighting critical initiatives undertaken by the partners in the agricultural value chains.

The intercounty committee on trade and agriculture from Mombasa and Taita Taveta Counties organized a consultation forum to strengthen agriculture trade between the two counties. Mombasa County is a key off-taker of fruits and vegetables from Taita Taveta, with a particular emphasis on the banana supply chain.

Engagement forum between Taita Taveta County Department of Livestock and development partners working in the dairy sector in Taita Taveta County to discuss strategies for operationalization of four milk cooling plants provided by the national governments in Taita Taveta.

<sup>23</sup> A systems methodology that helps project managers approach development challenges with multiple perspectives and with stakeholders from multiple sectors, to bring about broad and sustained collective impact

**Kisumu County:** KCDMS partnered with Cooltrends Ltd, a Kisumu based company dealing with fodder production, and Nyabon Ltd, a technology firm dealing with farm mechanization, to organize a farmers' field day in Nyang'ande, Kisumu County. The theme of the field day was '*Optimizing resource utilization through diversification and mechanization of production.*' Participating organizations included Bayer, Arysta, Toyota Tsusho, and Magos Agrovvet, while financial institutions included KCB, Equity and APA Insurance.

Kibuye African Traders Association is an association of all traders doing business in Kibuye market, the biggest commodity market in western Kenya. In Q1 KCDMS facilitated registration of the Kibuye Market Horticulture Traders Association representing members of large and medium horticulture off-takers within the market.

**Kisii County:** KCDMS initiated the registration process of Kisii County Banana Traders Association. This association is a member of Kisii county banana platform and is working closely with other stakeholders and the County Government of Kisii in the initiative to construct a banana processing plant. Once registered, the association will take the lead in organizing future banana B2Bs and other banana events in the county.

**Migori County:** KCDMS in liaison with the leadership of the Migori County Sweet Potato Trader's Association successfully lobbied the County Government of Migori to allocate the sweet potato aggregators space within Migori town to ease sorting and loading of the produce on route to various markets in the country. Going forward, KCDMS plans to facilitate a BDS provider to train the association on business management, including record keeping, financial literacy, and business planning.

**Bungoma County:** KCDMS participated in the launch of the Bungoma County Banana Stakeholders' Forum. This forum was created with a view to developing holistic strategies to address key constraints in banana production and marketing in Bungoma county.

**Busia County:** In partnership with the County Government of Busia, KCDMS initiated the Busia county stakeholder forum, bringing onboard stakeholders and development partners working in Busia county to discuss areas of synergy and avoid duplication of effort. Participating partners include the private sector, KEPHIS, KALRO, HCD, Send a Cow, ICRISAT, EABL, County Department of Agriculture, Livestock and Fisheries, County Department of Nutrition.

### 3.2 Improved capacity and profitability of lead firms and agribusinesses

During the year KCDMS worked with Open Capital Advisors (OCA) and East Africa Market Development Associates (EAMDA) to offer BDS services to selected lead firms to expand their operations, increase their efficiency, reach new markets and/or raise capital. OCA held initial exploratory meetings with Meru Greens Ltd, Goshen Export Ltd, Burton & Bamber Ltd, TrueTrade Ltd, Fahari Biashara Ltd, Dahable Ltd, Lucsom, and Biofarms Ltd; resulting in a support contract with TrueTrade Ltd. Meanwhile Meru Greens, Biofarms, Dahable Ltd and Goshen Export Ltd. have confirmed interest and OCA is pursuing further discussions.

**Business positioning support to Sparrow Youth Group by EAMDA:** During the period under review, EAMDA facilitated the development of a strategic plan for Sparrow Youth Group, a 1-year-old private limited company located in Siaya County. The company specializes in direct sourcing of fresh fruits to meet the demand for their fresh juice products. EAMDA worked with the group's management to develop strategies to improve farmer productivity while reliably availing high-quality, safe, fresh juice to its customers. KCDMS will continue monitoring the outcomes of these recommendations.

**Organizational strengthening and capacity building of dairy and horticulture businesses:** During quarter 4, KCDMS launched the BDS promotion program which will target 37 selected businesses in dairy and horticulture during phase 1 of the BDS promotion program. Six (6) BDS firms had been identified through competitive bidding and linked to businesses in different KCDMS regions to offer a 6-month professional management contract with a 60-day Level of Effort (LOE) per business. A BDS provider was also identified to support grantee firms with their systems, policies, and financial management. The BDS promotion Program is set to start during Q1

#### Proposed BDS promotion program beneficiaries

- 17 dairy cooperatives in KCDMS Western, Nyanza and Eastern regions
- 15 horticulture / fodder cooperatives in KCDMS Western, Nyanza and Eastern regions
- 5 Green Grams cooperatives in Kitui and Makueni
- Financial management support to All PIF grantees



of Y3.

| Table 11: BDS firms engaged under <i>KCDMS BDS promotion program</i>  |   |   |
|---|---|---|
|    |  |  |
| <p>Supporting organizational strengthening and capacity building: PKF to work with 7 dairy cooperatives in Eastern region; ASL to support 5 dairy cooperatives in Nyanza region; Social Enterprise Associates to support 6 horticulture cooperatives in Western region.</p> |   |   |
|    |  |  |
| <p>Africa turnaround to support 5 horticulture cooperatives in Nyanza region; Ultimate to work with 4 horticulture and 5 green grams cooperatives in Eastern region; Leowa associates to advise 5 dairy cooperatives in Western region.</p>                                 |   |   |

**Positive behavior changes from KCDMS exposure visits:** KCDMS continued to support producer groups to build competitive businesses through exposure visits to learn from profitable businesses employing innovative and inclusive management practices and innovative ways of doing business. The following changes have been observed as a result of these visits:

- **Exposure visit by Seke Dairy in Kisumu to Kabiyet Dairy in Nandi County** led to Seke Dairy adopting innovative and customer-centric ways of packaging value-added milk products. The cooperative has since ordered [REDACTED] from [REDACTED].
- **The Meru exposure visit by banana farmers from Taita Taveta County** introduced farmers to new banana production methods which are now being adopted. As a result of the visit, the Taita Taveta farmers are now seeking alliances with traders [REDACTED].
- **Samalanga Dairy in Siaya County entered an MoU** for purchase of good quality dairy cows from affiliate farmers from [REDACTED] following their exchange visit to [REDACTED] conducted with co-support from KCDMS.

[REDACTED], a youth and a board member of [REDACTED] Cooperative, is encouraging many other youths to undertake banana production. KCDMS organized an exchange visit to Meru and Kirinyaga counties during which [REDACTED] learned many aspects of banana production which she thinks will transform her banana business. She has since dug a borehole and expanded her banana production. She started with [REDACTED] plantlets of the local varieties and has added [REDACTED] tissue culture bananas on [REDACTED] acres. [REDACTED] and other farmers in Taveta sub-county have engaged a local banana off-taker from [REDACTED] market, [REDACTED], to buy directly from [REDACTED] farmers. Other traders [REDACTED] have started setting up a banana ripening chamber in [REDACTED] town to open up the market for ripe bananas. With the market coming closer, [REDACTED] feels confident of her future in the banana business.

*“My visit to Meru and Kirinyaga was a move in the right direction!” [REDACTED]*

- **Following an earlier exposure visit to Meru Central Dairy Cooperative Union, the dairy cooperatives in Makueni County are now gearing up to establish the Makueni Cooperative Union.** This apex body of Makueni County cooperatives is set to facilitate coordination of business activities including input acquisition, financing, and milk marketing. The apex body under the name [REDACTED] is being registered with [REDACTED] member cooperatives. The Union has completed their by-laws and is currently finalizing a financial plan and a strategic plan which will provide direction to dairy development in the county aligned to the county’s Vision 2025 and CIDP 2018-2022.
- **SPARD Africa Ltd, a KCDMS grantee, established a check-off system for the supply of hay** to [REDACTED] in Taita Taveta County following an exchange visit to Rift Valley Hay Growers Association, Nakuru County and Nyala Dairy in Nyahururu County. As a result of this arrangement two ranches, [REDACTED], have expanded their hay production by [REDACTED] acres to meet the expected demand.

### 3.3 Development of service markets for BDS and value chain specific actors

By developing service markets for BDS and value chain actors, KCDMS aims to help dairy and horticulture businesses access affordable services to expand their operations, increase their efficiency, reach new markets and/or raise capital.

**BDS:** KCDMS developed a catalog of BDS providers in priority value chains and regions. The catalog is being shared with grantees, pipeline grantees as well as county governments for sensitization on the existence of BDS services with packages tailored to fit agribusinesses at all levels within the market systems.

To accelerate the uptake of BDS services by agricultural enterprises, KCDMS has contracted six BDS providers to work directly with cooperative societies to build their capacity. Table 6 above shows the service providers that have been engaged under phase 1 of the KCDMS BDS promotion program.

**Value chain service provision:** KCDMS is supporting several service markets around our value chains, such as artificial insemination service providers (AISPs) for dairy and spray service providers (SSPs) for horticulture.

- GenePlus, a KCDMS grantee, formed [REDACTED] AISP business centers in Western and Nyanza regions and equipped [REDACTED] of them with 45-liter capacity AI cold storage tanks. GenePlus has supplied liquid nitrogen and [REDACTED] straws of semen through its

[REDACTED] AISPs, generating KES [REDACTED] from the sale of semen straws and liquid nitrogen. Over [REDACTED] cows were inseminated via the AI business centers. Reports from the AI providers indicate that the first [REDACTED] calves from this activity have been born. With the service providers now in place, GenePlus is now in position to launch a major marketing and promotion effort in Y3. A similar distributor is coming on board to serve Eastern Region in Y3.

- The Agrochemical Association of Kenya (AAK) has so far trained [REDACTED] Trainers and [REDACTED] SSPs and [REDACTED] spray team members (STMs) with KCDMS support. The training included both technical information on professional spray service provision and business management skills. An SSP accreditation process is underway. The trained SSPs will be linked to agro-dealers and input/agrochemical manufacturers for the supply of quality inputs, and to farmers organizations for demand creation. This program will enable AAK to strengthen the agrochemical quality monitoring system and compliance and provide a viable employment opportunity for youth engaged in spray service provision. Additional training will be rolled out in Y3 with a total target of [REDACTED] SSPs and [REDACTED] STMs to be trained across the [REDACTED] counties.

### 3.4 Expanded access to finance and insurance services

During the year under review, the KCDMS access to finance team focused on finance linkages for enterprises and farmer groups at the micro and SME level. The team also leveraged a financing pipeline for successful PIF applicants to help them finance their portion of the investments. Through the continued linkages between financial institutions (FIs) and potential borrowers in the counties, value-chain stakeholders accessed a total of \$24,344 worth of credit this year. Table 12 below provides a summary of the financing for agricultural activity facilitated by KCDMS through participating financial institutions.

[REDACTED]

***Linkages through finance clinics and forums:*** KCDMS facilitated a number of finance clinics and other linkage forums during Y2 which have enabled financial institutions such as Juhudi Kilimo, Bimas, Musoni, UTS, Unaitas SACCO, Equity Bank, and KCB to significantly increase credit to SMEs and producer groups as shown in the table above. Some of the financial outcomes that resulted from the 12 county level linkage forums include the following:

[REDACTED]

***KCDMS partnerships with Financial Service Providers for increased financing in agriculture:*** KCDMS used various approaches to encourage the financial services sector to finance participating private sector enterprises. These approaches included:

- working directly with MFIs to buy down the risk of expanding their service network through PIF grants,
- establishing collaboration MOUs with financial institutions, and
- providing BDS/technical assistance to financial institutions to enhance their capacity to finance stakeholders in KCDMS counties and value chains.

During the year, the activity fully engaged three FIs; Cherehani Africa (KES [REDACTED]), Juhudi Kilimo (KES [REDACTED]) and BIMAS microfinance (KES [REDACTED]) as grantees. As of close of the year, six more FIs are at very advanced stages of joining the KCDMS grants program, all with the one agenda to accelerate availability and access to finance for agriculture growth.

KCDMS has also signed collaboration MOUs with 11 FIs including Agriculture Finance Corporation (AFC), KCB Bank (Mobicrow), Qwetu SACCO, Unaitas SACCO, Juhudi Kilimo, Musoni Microfinance, Yehu Microfinance, Bimas Microfinance, KUSCCO, Universal Traders SACCO, and Rafiki MfB. In support of these collaborating partners, KCDMS has co-funded business and farmer forums with Unaitas Sacco in Kisii County, AFC in Kitui County, Universal Traders SACCO in Makueni, Equity Bank in Siaya, KCB Bank (Mobicrow) in Makueni. KCDMS will continue to collaborate with these financial institutions in order to stimulate supply and demand for finance in our sectors. These efforts have contributed to the success of the total finance accessed above.



KCDMS CoP and [REDACTED] upon signing an MOU

During the year, KCDMS rolled-out a BDS/technical assistance (TA) program for financial service providers (FSPs) to enhance their ability to extend agricultural credit and financial services (including insurance) in the KCDMS zones. The Activity selected a pool of TA providers in agriculture and rural financial services (through a competitive call for Expressions of Interest -EOI) while subsequently creating demand for the services by rolling out a technical assistance (TA) promotion program on a 25% cost-share basis for KCDMS financial institutions. So far 4 MFIs: Kenya Livestock Finance Trust (KLift) Microfinance, Yehu Microfinance, Dodore (Agri-wallet), and Eclof Microfinance, have applied for technical assistance under this program. The process of recruitment of service providers for these assignments is underway. Sidian Bank and Rafiki Microfinance Bank are also in the pipeline.

### 3.5 Trade in domestic, regional and international markets

During the year KCDMS facilitated the following interventions towards expanding trade in domestic regional and international trade working closely Horticultural Crops Directorate (HCD), Fresh Produce and Exporters Association of Kenya (FPEAK), Fresh Produce Consortium of Kenya (FPC) and the Kenya Flower Council (KFC). During the year, the following activities leading to improved trade in domestic, regional and international markets were conducted:

**Revival of the National Horticulture Traceability System (NHTS):** In Y2 KCDMS worked to lay the foundation for revival of the NHTS in liaison with HCD and horticulture industry associations (FPEAK, FPC, and KFC). An MOU for collaboration on this effort was negotiated and signed between KCDMS and HCD. A systems audit was then contracted with PKF Consulting Ltd. to review the technology, infrastructure, application, and associated internal control framework for functionality, efficiency, and security. The review was completed, and final findings/recommendations were shared with the industry stakeholders. The process included migration of the NHTS from the previous server hosted at the KFC to the AFA server as agreed by the industry stakeholders to ease the administration and roll-out process once the system is up and running. The next step will be to contract a systems developer to make the necessary adjustments to the NHTS. This contract is anticipated in Y3. KCDMS will continue to follow up to ensure the successful implementation of the recommendations as the system rolls out and serves its purpose.

**Participation in trade exhibitions and conferences:** The following key activities leading to improved presence of KCDMS actors in the international and domestic markets were conducted during the period under review.

- KCDMS finalized plans to facilitate Goshen Exporters Ltd, a KCDMS grantee, to attend Anuga Conference, one of the biggest food fairs in the world hosted in Cologne, Germany. This fair, scheduled for Q1 of Y3 will bring together more than 7500 exhibitors and more than 165,000 visitors. It is hoped that this will open up avenues for the actor to develop business relations.
- During the year, KCDMS co-supported horticulture industry associations to host the annual Fruits, Vegetables, and Herbs conference held at the Kenya School of Monetary Studies. KCDMS

facilitated six grantees to the conference providing them the opportunity to discuss advances in the dynamic horticulture value chains with key emphasis on strategies to meet the demands of domestic and export markets in regard to food safety and compliance. KCDMS' ongoing efforts to facilitate the opening up of EU market via establishment of Pest Free Area (PFA) and Low Pest Areas (LFA) mango zones in Makueni County were welcomed by the horticulture industry.

**Roll out KS1758 Part II industry standard:** KCDMS supported Fresh Produce Consortium of Kenya (FPC) in the on-going roll-out of the KS1758 Part II training and associated materials. During the quarter, KCDMS facilitated FPC organized KS1758 TOT training as well as printing of KS1758 tools and training materials. The activity is in the process of releasing RFA for the roll out and sensitization of horticulture stakeholders on KS1758 to the industry at different levels.

**FPC Kenya Strategic Plan Launch:** KCDMS Facilitated and participated in a 5- year strategic plan launch held during the quarter under review. The launch brought together key actors in the horticulture value chain, including exporters, growers, regulators, equipment providers, and Government. This strategic plan highlighted emerging investment options for affiliate members in the domestic and export market while facilitating members to meet the demands of these changing markets.

**Food Safety Awareness Workshop:** KCDMS co-facilitated FPC to send a representative to an international food safety workshop in Johannesburg South Africa. The workshop dubbed 'Consumer Safety and Trade in Africa's Agricultural Produce' sought to create harmonization discuss compliance challenges and Issues facing producers and exporters in Africa regarding food safety.



## 4 DIVERSE PRODUCTION AND IMPROVED PRODUCTIVITY

KCDMS aims at achieving diverse agricultural production and improved productivity through transfer (extension) of proven technologies by diversifying to higher-value crops, and by promoting off-farm enterprises for increased resilience to drought and other shocks. The Activity supports the emergence of a commercially driven input supply system capable of supplying diverse, high-quality technologies to farmers. Increased awareness of and access to a diverse, nutritious diet, especially for women, youth, and infants is an important component of the strategy.

KCDMS desired outcomes in this component include:

- Intensification of sustainable production systems leading to increased returns from existing farmland, shift to higher-value crops, shift to off-farm labor, and increased resilience to drought and other shocks.
- Emergence of a commercially driven input system capable of supplying diverse, high-quality technologies to farmers.
- Increased awareness of, and access to a diverse, nutritious diet, especially for women, youth, and infants.

### *Key highlights FY 2019:*

***Fruit fly control regain access to export markets:*** In recent years, the fruit fly menace prompted KEPHIS to impose strict quarantine regulations and a voluntary ban imposed on mango exports to Europe, thus severely limiting exports and excluding farmers from profitable markets. Because the fruit fly is a major cause of post-harvest losses, KCDMS initiated the formation of the mango technical working group (TWG). The TWG is a multi-stakeholder forum made up of seven IPM technology providers, two mango cooperatives (Makueni Fruit Processors and Makueni Value Chain), agro-dealers, research institutions, KEPHIS, Rockefeller Foundation, TechnoServe, United Nations Industrial Development Program (UNIDO), private sector off-takers, Makueni County Government, and mango traders and off-takers. The TWG adopted the fruit fly free zone (FFFZ) campaign strategy initially developed by KCDMS and has begun implementation. Through the mango TWG, KCDMS is supporting a comprehensive Integrated Pest Management (IPM) communication campaign to sensitize farmers on fruit fly control in collaboration with key stakeholders - Rockefeller Foundation, TechnoServe and United Nations Industrial Development Program (UNIDO). Beginning in Y3, the campaign will promote the adoption of safe, proven technologies to support the establishment of Pest-Free Areas (PFAs) in Makueni and Kitui Counties.

***HST Standards completed and launched:*** To protect smallholder farmers and reduce post-harvest losses, KCDMS supported the East African Grain Council (EAGC) to spearhead the process of developing HST Standards in Kenya, culminating with the gazettement of two Standards.

***Roll out of ICT based agri-nutrition edutainment contents through Talking Books:*** During FY2019, KCDMS developed edutainment audio training materials to complement the Agri-nutrition/Community Dialogue Cards in an innovative manner. The audio messages were pre-tested and deployed on Talking Books. Fifteen grantees involved in sweet potato, ALVs, poultry, dairy, and fodder value chains. These simple devices were trained on use of the Talking Books and engaged in pilot testing this innovative training approach.

### 4.1 Production of targeted commodities, inclusive of women and youth

During the period under review, KCDMS continued rolling out appropriate productivity-enhancing technologies and practices to the smallholder farmers promoted through grantees and partners such as FIPS. KCDMS is also partnering with KALRO for online hosting and promotion of a catalog of productivity-enhancing technologies for smallholders. Overall [REDACTED] smallholder farmers, (47% male, 53% female, and 7% youth) have accessed good agricultural practice training, inputs, technologies, modern practices, and/or relevant usage information through KCDMS market actors, which is expected to result in improved productivity.

In Y2 KCDMS was working with 23 grantees in HR1 and 14 grantees in SA2 promoting technologies and management practices aimed at improving production of the focus commodities. An estimated 10,000<sup>24</sup> Ha of land is currently under improved management practices. The key technological practices considered for adoption included diversification into new crops, crop genetics (varieties), pest and disease management practices, adoption of cultural practices, irrigation, land preparation, soil fertility and conservation management, and crop insurance. Specific technologies are described below:

- IPM for fruit fly control:** As part of the fruit fly control campaign, KCDMS is promoting an IPM approach that includes pheromone traps and lures, solar sanitation bags to kill fruit flies on mango waste, release of natural enemies, and hot water treatment of fruits before export. KCDMS is co-investing with five IPM technology providers (Real IPM, Kenya Biologics, Farmtrack, Faina Ltd, Ifarmkconnect), two cooperatives (Makueni Fruit processors and Makueni value chain), Apollo Agriculture, various off-takers, agro-dealers, and SSPs - through the AAK program. KEPHIS is mandated to take responsibility for the establishment and maintenance of the pest-free area (PFA), including designing of a PFA protocol, regular farm audits, monitoring and enforcement, and registration of mango exporters and production farms. UNIDA, as a TWG partner will be funding the additional KEPHIS costs as a cost-share match to the KCDMS investment.
- Brachiaria planting materials:** During the period under review, KCDMS through FIPS supported 691 youths (477 new and 214 continuing) across Bungoma, Busia, Homa Bay, Kakamega, Siaya and Vihiga Counties in commercial fodder production. A total of 733,343 splits (planting material) were planted leading to a cumulative 204 acres put under brachiaria. Of the 691 youths, 67 from across Bungoma, Busia, Homa Bay, Kakamega, Siaya, and Vihiga counties, have sold their first crop of fodder earning KES 756,600 (USD 7,566). Other young fodder farmers have started diversifying from commercial fodder production into dairy by buying dairy cows or improved pure-bred bulls for breeding services. Advantage Crops Limited (ACL), a KCDMS grantee engaged in importation and marketing of Brachiaria seed, rolled out business promotion activities in the 12 counties through sensitization meetings targeting key leaders drawn from county government, farmer groups and cooperatives from each of the counties. ACL selected farmers in 38 sites scattered across the counties to plant small forage demo plots for promotional and learning purposes.
- Deep tillage and soil management:** Through FIPS, KCDMS is promoting conservation tillage. In Y2, 157 deep tillage plow service providers plowed 1,530 acres (619 ha) using chisel or spring plows. This type of tillage breaks the hardpan, thus enhancing root penetration for water infiltration. The increased adoption for deep tillage resulted from demonstrations by Village Based Advisors (VBAs) who promote complementary inputs like improved seeds and pesticides. In Western Kenya, crops under deep tillage have shown improved growth as a result of improved water retention. FIPS will support more deep tillage technologies in the coming short rains. A total of 1,111 farmers benefitted from a soil testing and lime application exercise conducted by 14 FIPS field staff and VBAs. The VBAs and FIPs staff were first trained on soil nutrition and provided with the necessary equipment to offer pH testing services to farmers. Sharing appropriate recommendations for maintaining good soil nutrition status is part of the service. Support for the equipment was part of the McKnight project cost share from FIPs.
- Rapid Banana Multiplication Technology (RMT):** In recent years, aseptic Tissue Culture (TC) propagation has been considered the primary way to eliminate sucker transmitted pests and diseases. TC plants are not readily accessible to poor farmers; however, thus the need for a simple, affordable, effective alternative. RMT offers just such an alternative for disease-free seedling production at farm level. RMT can greatly boost food security and income generation among small scale farmers if properly adopted for commercial sustainability. KCDMS is partnering with a team of RMT experts from KALRO to train staff from cooperatives interested to take up commercial seedling production. This will increase the availability of affordable high-quality seedlings of improved varieties.

To date, 157 deep tillage plough service providers (111 males, 47 female) engaged in deep tillage technologies.

<sup>24</sup> From KCDMS 2019 Annual outcome survey report

- **Hermetic Storage Technology (HST):** KCDMS supported the East African Grain Council (EAGC) to work with other stakeholders to develop HST quality standards to improve storage of agricultural grains. EAGC conducted the exercise in partnership with the Kenya Bureau of Standards (KEBS). The objectives were to protect users of HSTs (particularly farmers and traders) from sub-standard products, to protect HST manufacturers and distributors from unfair competition from fake products, to create more clarity in the regulation of HSTs, and to improve Kenyan grain quality for the benefit of consumers. The table below summarizes the standards development process:

#### *HST Process from beginning to end*

- ✓ **January 2018:** Initial stakeholder consultations on the development of HST standards conducted in Nairobi
- ✓ **March-May 2018:** A Market Survey and Regulatory Gap Assessment Study to gather evidence on HSTs,
- ✓ **September 2018:** KEBS with support from EAGC constituted a Joint Technical Committee (JTC) to develop the HST Standards for Kenya.
- ✓ **November 2018:** JTC field visits to manufacturers of HSTs in Nairobi, Tanga, and Arusha (Tanzania)
- ✓ **December 2018:** (2) Standards are drafted: Hermetic Storage Bags and Rigid Plastic Hermetic Silo during a write-shop in Mombasa
- ✓ **February 2019:** Improved draft HST standards developed during a review workshop
- ✓ **(60-day) Mid-February to Mid-April 2019:** Public review of draft HST standards
- ✓ **May 2019:** Developed the final draft HST standards after consideration of public review comments
- ✓ **August 2019:** Standards to be approved and gazetted by the Standards Approval Committee
- ✓ **October 2019:** Standard launched

Two standards were developed:

- KS 2873:2019 – Kenya Standard – Hermetic Storage bags – Specification, First Edition
- KS 2874:2019 – Kenya Standard – Portable rigid plastic hermetic grain silo – Specification, First Edition

The two HST standards were published in The Kenya Gazette Notice Vol. CXXI – No. 99 of 9<sup>th</sup> August 2019. The standards are now available for purchase by interested stakeholders on the KEBS Webstore (<https://webstore.kebs.org/>). Roll out of the standards in the KCDMS counties will take place in Y3.

*Prof. Michael Nicholson of USAID Kenya and East Africa hands over the HST standards to [REDACTED], CEO Grain Industries Limited during the African Grain Trade Summit held in October 2019 in Mombasa*

To promote recommended technologies and practices, KCDMS has leveraged several different mechanisms for training and extension, described below:

- **Private sector embedded extension systems for increased availability of extension services to smallholder farmers:** During the period under review, KCDMS worked with the various value chain players to promote private sector embedded extension and advisory services as a way of



streamlining their supply chain, and marketing their products, while availing extension services to the farmers. All of the KCDMS grants incorporate as aspect of private sector embedded extension in their activities. As the first step in implementation, the grantees are introduced to the county government for partnership with the Ministry of Agriculture, Livestock, and Fisheries.

In addition, KCDMS, through ILRI, is rolling out the dairy farmer assistant (DFA) and agent network (AN) models of private sector embedded extension in order to increase the production of milk to 37 producer organizations across the 12 KCDMS counties. Sustainable extension support is one of the expected outcomes of the business development services (BDS) contracts discussed above.

In Homabay County, KCDMS, through FIPS-Africa, supported the Kasbondo Dairy Cooperative to recruit 29 VBAs providing commercial extension services to cooperative members. FIPS-Africa also continued to support pure-bred bull keepers and plow service providers to create demand for their services. Ten (10) bull keepers were supported to create awareness on bull schemes through barazas and farmer training. As a result, 418 cows were inseminated, and 41 calves born so far during Y2.

- ***Technology Demonstrations and field days:*** Based on the results of the 2019 annual outcome survey, KCDMS estimates that 63% of all participating farmers have adopted improved management practices and technologies.

In partnership with county governments and other stakeholders, KCDMS supported grantees, including GenePlus, Hequeendo, Advantage Crops Limited, and Nuts and Oils Ltd, to organize and participate in field days and B2Bs to showcase their products and activities to farmers and stakeholders. In Busia, a total of 60 input suppliers and 1,232 farmers attended one such event. Major companies in attendance included Syngenta, Baraka Fertilizer, Kenya Seed company, Western Seed Company, Agri Chem, Unga Feeds, Ultravetis, and Norbrooke. Financial institutions in attendance were KCB, Equity, Arise and Shine, Bungoma Sacco, and Sidian Bank. Farmers were able to interact with stakeholders and access knowledge on utilization of the latest productivity-enhancing technologies. Key technological practices exhibited included crop genetics – seeds and varieties, crop insurance products, pest and disease management, adoption of cultural practices, fodder improvement, irrigation, land preparation, soil fertility, and conservation management

KCDMS not only identified opportunities to showcase practices and technologies but also engaged stakeholders to 'buy in' on technology demonstrations as means of imparting knowledge, techniques and skills to farmers. Through FIPS partnership, KCDMS trained 772 farmers on post-harvest management of grains, especially maize. The training included demonstrations using Kensil Guard aimed at comparing the effectiveness of organic versus chemical grain preservation options. Farmers are currently setting up these demonstrations for learning.

As discussed under section 2 above, KCDMS also supported county stakeholder field days and pre-season B2Bs in all 12 counties for enhanced farmer adoption of productivity enhancing technologies which brought together the input companies, agro dealers, financial institutions and farmers in order to strengthen business relationships and create awareness of available products and services as farmers prepare for the long rains early in the year. During the events, input suppliers had the chance to pitch their new and already marketed products while agro dealers had an opportunity to interact with farmers thereby promoting their products and increase from their business for enhanced competitiveness.

FIPS supported 40 VBAs in Bungoma, Kakamega, Vihiga and Busia counties to experiment with lime micro-dosing, by putting 5g of lime in the holes during planting. Micro-dosing requires only 100 kg of lime per acre, compared to conventional lime broadcasting, which requires 1MT/acre. With conventional methods, it takes two or more seasons to observe results from the lime application, but VBAs observed differences in the lime treated demos within a season. Based on these results, FIPS supported 337 lime demonstrations on maize and sweet potatoes in Bungoma, Kakamega, Vihiga and Busia Counties in collaboration with Homalime and Athi River Mining. It was the lessons from these lime demos, that prompted FIPS to introduce soil testing as a simple business opportunity for VBAs.

- Village Based Advisor (VBA) model:** In year 2 FIPS-Africa continued implementing the VBA extension approach to demonstrate fodder/dairy technologies. A total of 496 trained and equipped service providers are working in 7 counties and providing extension and support services to 32,627 farmers in Y2. Results from random field visits to farmers showed that 80% of the farmers who started with small packs of improved fodder varieties have expanded their plots. Through demonstrations with maize small-packs, demand for improved maize varieties, especially DKC 777, has risen, resulting in the sale of 900 kg of improved maize varieties worth KES 213,750 (USD 2,138). FIPS also supported 134 VBAs in Bungoma, Siaya and Busia Counties to access clean planting materials of improved sweet potato varieties and establish multiplication plots for sharing sweet-potato planting materials with farmers.

Over the year, FIPS has conducted ToTs to strengthen the capacity of 349 trainers including VBAs, County officials, and field staff on basic animal health and husbandry focusing on tick control, deworming, use of quality mineral salts, and fodder preservation. As a result, VBAs have gained the confidence to offer training with limited support. Ten county officials are now actively conducting farmer training with field staff and attending or leading training at their cost.

In Y2, over 32,000 participating farmers have been trained by VBAs and or County officials with the support of FIPS field staff on topics including dairy, fodder and post-harvest management and FAW management. Participating farmers have formed 212 farmer-groups of 20-30 farmers each to enhance linkage/layering of activities, training, and access to market system services.

- Animal Nutrition Extension:** In Y2, KCDMS conducted a dairy nutrition study to identify the critical dietary constraints to optimal dairy productivity for smallholder farmers in the KCDMS focus counties. Results showed that these farmers are not feeding their animals a sufficient quantity of quality feed. Most rations consist of overly mature forages that are deficient of the required nutrients or are of poor digestibility. Most available supplements are not formulated to mitigate macro mineral issues and address the constraints to optimal milk production. The study demonstrated a need to review the present regulatory system, which currently is not sufficient to support new product development in the dairy, feed, and forage sub-sectors.

Based on these findings, KCDMS is promoting an integrated approach to improve nutrition at the producer level by improving the quality of dairy feeds, introducing feed labeling, making available more appropriate basal forages, and feed/supplement formulations to mitigate nutritional issues. A thorough review of the regulatory framework for the feed industry is also recommended. The results and recommendations from the study have been shared widely with dairy stakeholders including presentations at both the ESADA 15th African Dairy Conference and Exhibition and the 8th African Grain Trade Summit hosted by EAGC.

ILRI has an ICT platform that tracks AI service provision and disseminates extension information to dairy farmers via SMS. KCDMS plans to incorporate nutrition messaging on the ILRI platform, and through other behavior change communication channels to disseminate these important findings from nutrition study: *“It is indicative that a sustained increase in milk production and productivity requires feeding both the **quantity** and the **quality** of feed and to provide a balanced essential macro-nutrients (energy, protein), and minerals (calcium, phosphorus), beyond what is needed to maintain normal body functions. Recommendation to this effect leads to the fact that nutrient requirements of the targeted animals must be identified, nutrient profiles of the available feed developed, and then any shortages in required nutrients must be addressed by applying proper ration formulation”.*

KCDMS is collaborating with ILRI and CIAT to undertake nutrient analysis testing of various Brachiaria varieties. ILRI has established Brachiaria trial plots to evaluate nutrient quality at different harvest intervals to determine when the forage quality is best. Trial results will form farmer recommendations going forward. CIAT conducted similar trials last year and is currently preparing their Brachiaria samples for NIR analysis in ILRI laboratories in Addis Ababa. For comparison purposes, KCDMS is collaborating with CIAT to send duplicate samples to the US for wet chemistry analysis, a more rigorous procedure that is not locally available.

## 4.2 Expansion of agricultural input supply systems

**Input supply and quality monitoring:** KCDMS' strategy is to expand existing input supply models to new areas and new commodities, and pilot innovative input supply models to gain cost-efficiencies and improve input access to all farmers, including women and youth. This year KCDMS partnered with One Hen Limited and Advantage Crops Limited (ACL) in the distribution of dairy meal concentrate and Brachiaria seed, respectively. Through promotional programs, One Hen was able to stock [REDACTED] agrovets with their high-quality dairy meal and poultry feed. ACL conducted sensitization meetings with local agrovets in a bid to stock the small pack brachiaria seeds. Before the KCDMS partnership with ACL, the Brachiaria seeds were only sold in 2 kg packs, which was quite expensive for smallholder farmers, hence slowing adoption. This imported seed is now available in a range of affordable pack sizes.

KCDMS is working on interventions to address the prevalence of low-quality inputs (e.g., fake seeds, diseased fruit seedlings, adulterated fertilizer, feed containing aflatoxin) currently in the marketplace. One key immediate challenge identified in the fruit tree value chains was the lack of quality control in horticultural seedling nurseries and the danger of spreading of diseases as a result of non-certified nursery facilities. KCDMS is working through several market actors to promote adoption of quality planting materials. Nuts and Oils in Busia, is scaling up avocado and mango seedling production and distribution in Siaya, Busia, Bungoma and Kakamega counties. So far, it has produced [REDACTED] certified avocado seedlings, enough to cover [REDACTED] acres. This is a substantial increase from the [REDACTED] assorted seedlings produced before the project. Their target is to establish [REDACTED] avocado and [REDACTED] mango seedlings all to cover [REDACTED] acres of land.

KCDMS also facilitated the procurement of [REDACTED] avocado seedlings from Solo Plant for distribution to partners at a 50% cost-share. Seedling distribution will be staggered over the next few months and completed by the end of December 2019. Better Grow Avocado company has trained [REDACTED] farmers on production and management of avocado, while Nuts and Oil has trained [REDACTED].

KCDMS will continue to conduct a joint assessment of current input supply quality and gap issues in consultation with key stakeholders like KEBS, AKEFEMA (feed), Agrochemical Association of Kenya (AAK), KEPHIS, HCD, KVB, and private sector actors.

**Support agro dealer platforms and launch agro dealer TOT:** KCDMS plans to support market systems training for agro dealers to help them improve their business management practices and reach more farmers with quality inputs. Agricultural input dealers and other local service providers are generally less comfortable with traditional lecture-based training methodologies. Instead, experiential, participative training methodologies are more effective in building capacity and fostering new behaviors. Through the market system training ToT program, KCDMS plans to develop a cadre of trainers with the capacity to facilitate the Agri Inputs Market Simulation training with market actors. This intervention has been in the planning stage for several months and will begin in Y3. The activity will improve agro-dealers business management practices and investment decisions.

## 4.3 Access to diverse, safe and nutritious foods

In 2017, before the start of KCDMS, USAID implementing partners in the Feed the Future Nutrition Technical Working Group developed a set of agri-nutrition training messages in collaboration with the Ministry of Agriculture, and the Ministry of Health. They were packaged in the form of community dialogue cards, food group posters, and an Agri-Nutrition Resource Manual. KCDMS has utilized these existing resources to leverage prior USAID investment and ensure consistency of messaging and is testing several approaches to deliver them.

### *Piloting sustainable approaches to achieving dietary diversity:*

**Talking Books:** Starting in Y1, KCDMS has been collaborating with the Center for Behaviour Change Communication to pilot the use of Talking Books for delivery of nutrition messaging in support of the Community Dialogue Cards. Talking Books are durable, easy-to-use, low-cost audio players used to play extension material packaged in the form of edutainment messages. Groups are able to upload questions and comments onto the device in response to the messages. Talking Books are designed to help development organizations and businesses share knowledge on-demand to improve the standard of living for people cut off from traditional sources of information. The Talking Books messages have been translated into Kiswahili for low literacy communities. So far, a total of 24 messages have been developed for the Talking Books (14 agri-nutrition, eight on dairy, and two on social inclusion). The nutrition messages are drawn from the agri-nutrition community dialogue cards.



*[REDACTED] of CBCC, explaining to [REDACTED], PS State Department for Crop Development and Research, how the talking books work during the third National Agri-nutrition Conference held in Nairobi*

KCDMS collaborated with CBCC to conduct ToT training for the nutrition and dairy grantees expected to train their farmers using both the dialogue cards and the talking books. [REDACTED] trainers participated. They were drawn from [REDACTED] organizations including [REDACTED] KCDMS grantees, FIPS Africa, and MoALF Home economists and MoH nutrition coordinators from HR1 and SA2 region. The implementing partners will roll out TOT for lead farmers who will facilitate training sessions with their groups of target beneficiaries. The county-level MoH and MoALF participants trained by KCDMS will provide oversight and backstopping to the trainers from the partner organizations as they implement the agri-nutrition training. To-date, KCDMS has distributed 100 Talking Books to participating organizations.

*[REDACTED], MEFI Consultant and beneficiary of agri-nutrition ToT, training community facilitators on agri-nutrition in Wote, Makeni.*

In Y3, KCDMS plans to contract implementing partners to scale-up the agri-nutrition training program to reach 150,000 households. Additional Talking Books will be procured for this roll out. They will be used in conjunction with the agri-nutrition community dialogue cards.

The organizations trained on agri-nutrition during the ToTs are as follows:

| Organization Western / Nyanza | Implementation Counties                      | Organization Eastern              | Implementation Counties         |
|-------------------------------|--|-----------------------------------|---------------------------------|
| ARDAP** <sup>25</sup>         | Busia  | BIDII**                           | Makueni                         |
| SAII*                         | Busia  | Goshen***                         | Makueni                         |
| C-MAD*                        | Migori                                       | Best Tropical Fruits***           | Makueni                         |
| ADS-Western**                 | Kakamega and Busia                           | Kitui Development Center**        | Kitui                           |
| AGRISS*                       | Migori                                       | Sweet N Dried***                  | Kitui                           |
| AFMA***                       | Kisii, Homa Bay, Kisumu, Kakamega and Migori | Skynet**                          | Taita Taveta                    |
| Hequeendo*** Enterprises      | Bungoma                                      | MEFI****                          | Kitui, Makueni and Taita Taveta |
| FIPS                          | Kakamega, Vihiga and Bungoma, Makueni        | Kitui Enterprise Promotion Co.*** | Kitui                           |
| Send a Cow**                  | Busia/ Siaya                                 | MoALF                             | Kitui, Makueni and Taita Taveta |
| Nuru Enterprises***           | Migori                                       | MoH                               | Kitui, Makueni and Taita Taveta |
| LACOMP****                    | Western/ Nyanza                              |                                   |                                 |
| MoALF                         | Western/ Nyanza                              |                                   |                                 |
| MoH                           | Western/ Nyanza                              |                                   |                                 |

**Nutrition dietary diversity workshops with local IPs and cooperatives:** Between August and November of 2019, KCDMS trained 243 KIWASH farmer groups (6,003 farmers) in Eastern, Western and Nyanza. During the period under review, KCDMS and NHPplus continued to layer KCDMS market systems activities onto the NHPplus nutrition and health activities with their 114 mother-to-mother support groups for increased nutrition outcomes. The intention is to increase income, food availability, and women's empowerment, which are the three pathways to agri-nutrition outcomes. The groups are part of the planned KCDMS learning studies on nutrition, which will test whether the women's economic empowerment and income pathways improve nutritional outcomes and consumption of diverse diets.

In a bid to expand nutrition messaging, KCDMS distributed agri-nutrition training materials including community dialogue cards, food group and complementary feeding posters to MoALF trainers from 12 Counties. The standardized printed training materials were also shared with the FAO ISPP project. Through this collaborative engagement, FAO-ISPP trained farmers in five of their counties of Tharaka Nithi, Kitui, Makueni, Machakos and Taita Taveta.

KCDMS staff participated in a five-day workshop hosted by NHPplus to discuss and develop a common way to address food and nutrition systems issues. The training was held in Nakuru county was part of the System-wide Collaborative Action for Livelihoods and Environment (SCALE+) program. SCALE+ is a methodology that helps project managers approach development challenges with multiple perspectives and with stakeholders from multiple sectors, to bring about broad and sustained collective impact. Three fundamental SCALE+ principles include applying a systems lens, building social capital and facilitating locally driven development. Participants were drawn from MoALF, MoH, USAID IPs and private sector actors.

#### **Performance of the talking books in 2019:**

The trained grantee staff and FIPS VBAs have started cascading the training to farmers. Feedback from the talking books agri-nutrition training indicates that 79% of the groups reached by FIPs listened to all of the modules.

*“In the seven months of implementation of the KCDMS agri-nutrition training using talking books: 24 nutrition-sensitive messages developed and deployed in the talking book, 118 ToTs were trained on use of the Talking Book. 100 Talking Books were distributed, 600 farmers were reached with nutrition-sensitive messages.”*

<sup>25</sup> \* = Approved nutrition grantee; \*\* Pipeline nutrition grantee; \*\*\* APS grantee with nutrition impact; \*\*\*\* VSLA contractor that will include nutrition content in training

KCDMS, in collaboration with NHPplus, conducted a value chain development training in Wote and Kisumu for selected KCDMS grantees to expose participants to value chain development. A total of 70 participants were trained to be able to define agricultural value chains in the context of a dynamic marketplace and a changing regulatory framework both at national and county levels.

*Food quality and safety practices, equipment, systems, and policies:* KCDMS participated in the International Food Safety Conference that was held at Kenyatta University from 24th – 26th May 2019. KCDMS exhibited the community dialogue cards, posters, and talking books and shared the findings of the Food Safety Study that was conducted in 2019.

Activity efforts in the support of the National Horticulture Traceability System with HCD and fresh produce industry actors, and the related roll out of KS1758, discussed above under the market systems component are part of our food safety interventions. KCDMS also engages with food safety issues through the Spray Service Provider program, which trains professional service providers on the safe use of pesticides and acaricides.

## 5 POLICY ENVIRONMENT FOR MARKET SYSTEMS DEVELOPMENT

The policy component aims to achieve four main outcomes:

- Policy formulation process (national, county, value-chain specific) that is inclusive and evidenced-based;
- Policy implementation process (national, county, value-chain specific) that coordinates between the county and national levels;
- Monitoring and implementation systems that improve county-level strategies and policies for inclusion and resilient agriculture and;
- Improved policy environment for stimulating increased agricultural investment by government, development partners, and the private sector.

### *Key highlights in 2019*

During the year under review, KCDMS facilitated the implementation of county policy agendas developed based on the policy, institutional and capacity issues identified through the public-private dialogues (PPDs) in all the 12 KCDMS counties that were completed in 2018.

KCDMS facilitated the Institutional Architecture Assessment (IAA<sup>26</sup>) in all 12 counties. The IAA process reports were shared with each county to facilitate intervention planning around priority county-level policies, strategies, legislation, capacity and institutional issues identified during both the PPD and the IAA. Some of the county-level issues were escalated to the level of the regional economic blocks or the national policy agenda to facilitate wider market systems development.

KCDMS also supported some national-level policies and strategies considered critical for domestication and use at the county level. KCDMS continued participation in the ongoing national/county level dialogue, particularly as related to increasing private-sector investment in KCDMS focus commodities and policies for inclusive agribusiness growth. Some of these interventions are highlighted below.

### 5.1 National-level policy formulation systems

***Continued collaboration with GOK Ministries and key partners:*** During the reporting period, KCDMS undertook consultations and interactions with government leadership while addressing high-level policy and county-level institutional capacity issues. KCDMS interacted with policy departments involved in the development of the national Agricultural Sector Growth and Transformation Strategy (ASTGS), which it co-facilitated with other partners. KCDMS maintained close collaboration with the Council of Governors (CoG) to influence policy reforms aimed at county level agri-led growth. For example, during Q1, KCDMS facilitated various technical discussions such as the 5th County Executive Committee (CEC) Annual Conference. KCDMS collaborated with the GIZ team on supporting policy and agricultural development work in three overlapping KCDMS counties. KCDMS participated in the monthly Feed the Future policy working group meetings. The working group brought together various USAID implementing partners for effective coordination. Through this initiative KCDMS has partnered with Africa Lead in planning the Super Champions for Change Leadership course for Members of County Assemblies who serve on the Agriculture Committee in the 12 KCDMS target counties, which will kick off in Y3.

***KCDMS policy intervention priorities:*** The reports from the county PPDs and IAAs highlighted the key policy challenges limiting private sector investment, and pinpointed actions to create an enabling policy environment at the county level. The reports included county-level policy matrices to guide policy support by all partners and guide the county government and all critical non-state actors on the priority county policy issues. KCDMS used these matrices to identify policy areas for support, and for mobilizing other development partners to crowd in on this initiative. However, some issues raised at the county level could only be handled at the national level, due to their specific nature. In May 2019, KCDMS, in partnership with FAO, Agriculture Council of Kenya, and the MoALF, co-hosted a national level public, private dialogue conference with a total of 137 stakeholders. At this conference, CECs from the 12 Counties

<sup>26</sup> IAA is a tool that provides a framework for analyzing a county's capacity to undertake food security policy change

presented results of their county-level PPDs and received feedback. The conference resulted in a plan for joint action by national-level stakeholders in collaboration with the counties. Going into Y 3, KCDMS will begin a long-term support program with FTF partners and other NSAs on the development of crucial market systems-enabling policies guided by the roadmap. In contribution to Kenya's Mutual Accountability to CAADP, KCDMS participated and provided technical support during the CAADP Kenya Biennial Review (BR) Report development process, participating in the Inception and Validation workshops in April and July 2019, respectively.

***Demand-driven support to government institutions:***

- On request from the Ministry of Agriculture, Livestock, and Fisheries (MoALF), KCDMS is supporting the Ministry to develop a National Avocado Promotion Strategy, reflecting the increasing importance of avocado in both local and export markets. A draft strategy is being developed and will be subjected to public participation.
- On request from the Ministry, KCDMS has committed to facilitate the development of the Animal Feed Development Strategy to help address the issues of feed quality and availability, which are essential for transformation of the dairy industry.
- On request from the Kenya Dairy Board (KDB), KCDMS supported the State Department of Livestock and the KDB to facilitate the Dairy Regulations Taskforce to work on the draft dairy regulations through a technical review retreat held in Machakos County. KCDMS has also agreed to assist the KDB to hold the public-private dialogues necessary for sound decision making on these controversial regulations.

***Strengthen capacity for policy change:*** A key issue that arose from the county level PPDs was the need to build the capacity of county agriculture staff on policy analysis. KCDMS partnered with GIZ at the national level to improve the curriculum for 'domestication of National Agricultural Sector Policies and Sector plans' by the counties which will be rolled out in Y3. The long-term plan is to refine the design of the course in collaboration with the MoALF, JAS, CoG, and offer it through a key technical government institution such as Kenya School of Government, KIPPRA or the Kenya Law Reform Commission, for long term sustainability. An embedded standing curriculum that is designed to induct and train all new county agriculture officials is important given the election-related turnover of senior officials at the county level.

***Strengthen agriculture sector institutional architecture:*** Policy reforms can strengthen the resilience of market systems and enhance the capacity to adapt to dramatic change, reducing uncertainty and the cost of transactions and thereby incentivizing entrepreneurship and private sector investment in agricultural sectors. The enabling environment for agriculture, including both formal and informal rules in the market, has a direct influence on the conditions for private sector growth. Institutional architecture (IA) provides a framework for understanding and improving a country's capacity to undertake transparent, inclusive, predictable, and evidence-based policy change. Completion of the national-level IAA of the sector in Y2 Q1 provided a framework for strengthening the sector. A prerequisite for effective IA strengthening is functional analysis (FA) as it provides information on the space for the private sector in the policy-making process. For agricultural sector to be transformative, the private sector must be given meaningful space in the policy-making process, as this has direct influence on enabling market systems development. It is for this reason that KCDMS engaged the Tegemeo Institute of Agricultural Policy and Development (Tegemeo) to undertake a Functional Analysis (FA) of the Ministry at the national and inter-governmental levels. The analysis is underway, and final results will be available in Q1 of Y3.

***Support intergovernmental linkages:*** The Kenya Constitution 2010 devolved most of the agriculture functions to the counties, with the main remaining roles of the national government being policy formulation and capacity development. Hence seamless coordination across the two levels of government is necessary for inclusive and resilient market systems development.

During Q1, KCDMS provided technical support to the Joint Agriculture Secretariat (JAS) on the technical design of the 3<sup>rd</sup> Agricultural Sector Intergovernmental Forum (IGF) held in mid-2019. IGF is the highest organ for decision making on key policy actions for the agricultural sector. The forum brought together the 47 county governments, the top MoALF officials, the non-state actors, and all development partners in the sector. During the forum, KCDMS assessed progress and identified challenges that needed to be addressed for effective implementation of the ASTGS in the current devolved system of governance and participated



in the sector priority-setting for the next year, recognizing the roles of counties and national government in the sector.

## 5.2 County-level policy implementation systems to support the market

**Undertake Institutional Architecture Assessments (IAA) in KCDMS counties:** Policy work in the 12 KCDMS counties was kicked off with Institutional Architecture Assessments (IAAs), conducted in Q1. The county IAAs helped stakeholders to:

- Understand key constraints to effective policy change and identify priority areas to improve the capacity and performance of the food security policy system;
- Identify reliable data and capacity for analysis that provide a sound evidence base for decision-making;
- Create mechanisms for inclusive consultation with stakeholders including the private sector, farmers' and women's organizations, universities, think tanks, the media and other non-state actors;
- Establish mechanisms for coordination across ministries, departments, levels of government and with those non-state actors.

About 500 participants were involved in this initiative that was facilitated by KCDMS in partnership with the MoAL. KCDMS has supported all the 12 counties to develop an IA Implementation matrix based on the IAA findings and is facilitating tracking progress of strengthening the IA using the implementation matrix. KCDMS will continue to facilitate institutional and policy change in the 12 counties during the second and third years and serves as the baseline to measure future progress.

**KCDMS county-level policy intervention priorities:** According to the county PPD and IAA findings, poor county-level coordination is one of the key constraints to policy change and improved growth of the sector value chains. In Y2, based on PPD recommendations, KCDMS facilitated the formation of the County Policy Technical Working Groups (TWGs) in all the 12 KCDMS Counties with membership drawn from both the public and the private sector. In most cases, the TWG chairman was from the private sector. KCDMS facilitated the drafting of the TWG terms and development of their priority action plans based on the IAA and PPD recommendations and informed by county priorities in the CIDPs. The key role of the policy TWG is to advocate for enabling policies for private sector investment and agricultural resource budget allocation. To maintain the momentum and ownership of the process, the policy TWGs have a regular schedule of monthly meetings to track the progress of policies, action plans, and budgetary allocation to the agriculture sector department. KCDMS provides technical support where needed.

The TWGs developed policy matrices that are used by the county to rally other partners to collaborate in the formulation and implementation of policies to address the issues raised, using intervention areas that support market systems development.

**Specific county-level interventions on request:** KCDMS has provided technical support and facilitation to various counties in response to specific requests, including the following:

### KCDMS technical assistance through consultants:

- Siaya county is in advanced stages of developing its overarching Agriculture Policy; and the dairy policy based on the situation analysis report for dairy which was prepared by a consultant funded by KCDMS. The dairy policy is meant to address critical issues of production, marketing, and feeds in the dairy value chain. Technical documents for both the agriculture and dairy policies are ready for the second phase of public participation in Y3. KCDMS partnered with GIZ in supporting Siaya County on this.
- A KCDMS consultant is working on the finalization of the Kakamega county agriculture policy.
- Kisii County is being supported to develop an African Leafy Vegetables (ALV) strategy – which is envisaged to build the ALV value chain into an organized, viable, productive and profitable enterprise for ALV value-chain players. The strategy will enable Kisii county to create a conducive environment for investment by the private sector in this high potential value chain. The strategy will build on the results of the ongoing ALV market study which KCDMS contracted Farm Concern International to carry out.

**Cost-share support for consultation meetings:**

- Siaya County has established the County Agricultural Sector Coordination Mechanism (CASCOM) to help coordinate all agriculture sector projects at the county. The formation of CASCOM is based on requirements by the Council of Governors. Urgent need to improve coordination of projects was identified as one of the challenges to effective policy change during the IAA of Siaya County in late 2018. To operationalize the CASCOM, Siaya county developed a Sector Coordination policy document which underwent public consultation in Q4 and is awaiting cabinet approval before anchoring in the existing county laws.
- During Q2, KCDMS facilitated farmers from the Western and Nyanza regions to contribute to the public forum organized by Horticultural Crops Directorate (HCD) of AFA on the food crops regulations in Nairobi for the sweet potato value chain. KCDMS also participated in the final public forum on the Horticultural Crops Regulations, ahead of their presentation to the National Assembly for ratification.
- In Q4, KCDMS in partnership with ASDSP facilitated a forum for coordination of projects in Bungoma County, as part of mutual accountability of sector actors.
- The Vihiga policy TWG, working with the CEC, agriculture, and supported by the Chamber of Commerce, has developed and tabled bills that included: (i) Cooperatives Enterprise Development Bill; (ii) Farm Inputs Fund Bill; (iii) Tea Cess Bill; and (iv) the Cooperatives Development Policy. The MCAs Agriculture Committee has been sensitized, amended the bills and tabled some of them to the parliament. They are committed to getting these bills approved. Other bills under development include Revenue Distribution Bill (in progress), the Rating and Evaluation Bill (finalized).

**Direct technical support by KCDMS policy specialists:**

- Makueni County is developing fruit development regulations which are meant to provide the basis for law enforcement in the Makueni fruit fly free areas.
- In Q4, KCDMS staff, in collaboration with Kenya Dairy Board, and ILRI (AVCD), facilitated the development of the Dairy Development Strategic plan for Makueni County. Data collection for development of the technical document is ongoing. Once finalized, the plan is to subject it to the second stakeholder consultation followed by validation.
- Bungoma County has also initiated the process of development of the CASCOM for the County. KCDMS facilitated the planning of this process.
- In Q4 KCDMS supported the Kenya National Chamber of Commerce and Industry (KNCCI) to play a role in linking the departments of agriculture and trade in Bungoma county in order to address some of the gaps identified in the IAA.
- The coordination mechanism concept papers for Kisii and Kisumu are at an advanced stage of development. In Kisumu and Migori, the Policy TWGs are still discussing the modalities of establishing a CASCOM.
- During Q2, Kisii County organized a meeting to discuss the planned public-private partnership investment in the banana factory. They asked KCDMS to train the Agriculture Committee of the MCAs on policy, legislative issues, corporate governance and private sector investment. EAMDA conducted the training with support from a local legal advisor.

**Support cross-county policy reforms:** Under Kenya's devolved system of governance, the 47 county governments have organized themselves into six regional blocs, based largely on their historical, political and economic similarities. These regional blocs are expected to spur economic growth within the respective regions through policy harmonization and resource mobilization.

KCDMS supported the Comprehensive Africa Agriculture Development Programme (CAADP) focal office team of the MoALF to train the Lake Region Economic Block (LREB) secretariat on the IAA process and conduct the IAA. The same team also undertook an IAA of the SEKAB secretariat.

LREB comprises 14 counties in Western and Nyanza region, including nine KCDMS/KIM FtF priority counties. Following the IAA, the LREB Agriculture Pillar and the 14 CECs from the representative counties met to develop their regional sector objectives into a regional work plan with KCDMS technical support; the output of this effort will inform the LREB agricultural sector strategic plan which is under development.

Following the SEKAB IAA, a joint technical team was formed to draft the South Eastern Kenya Economic Bloc (SEKEB) inter-county agricultural sector plan. The plan will include the establishment of an inter-county fruit fly free zone to enhance the mango industry in the region with encouragement from the mango TWG.

KCMDMS maintained close collaboration with the Council of Governors (CoG), and in October 2018 KCDMS supported the Lake Region Economic Block (LREB) to host a three-day Conference and facilitated a session on “Transforming Kenya through the Big Four Agenda.” Several of the KCDMS grantees participated in the exhibition at the KCDMS stand. The LREB conference brought 14 Counties under a common economic platform was launched by HE the President of the Republic of Kenya rolled out an initiative to be spearheaded by the Ministry of Devolution on formulation of a national policy on establishment of regional economic blocks. Over 1,000 participants attended the conference including counties, national government ministries, the private sector, farmer organizations, and development partners.

KCMDMS also facilitated a session during the 5th Annual County Executive Committee members (CEC) members Conference, held at the Kenya Institute of Curriculum Development in December 2018. The conference was designed to consolidate issues for further discussions and resolutions during the subsequent 5th Devolution Conference that was held in March 2019. KCDMS participated actively in the Conference and committed to providing strategic support to the Regional Economic Blocks in the KCDMS zone of influence.

In an effort to address the issue of prevalent livestock diseases such as Lumpy skin disease and foot and mouth disease in the western, Nyanza and North Rift regions, the Lake Region Economic Bloc (LREB) and the North Rift Economic Bloc (NOREB) are set to develop the regional cross-boundary NOREB-LREB Livestock Disease Control Policy with KCDMS support.

**Support to county agricultural strategic plans:** Homabay, Migori and Siaya Counties have developed their agricultural sector strategic plans (SPs), anchored in their respective CIDPs to provide a seamless implementation of agriculture programs and particularly focusing on better coordination of activities, effective incorporation of monitoring, evaluation, and learning, and data-driven decision-making. The next step for these strategic plans is to subject each of them to public participation. KCDMS hired consultants to work with each county on the SPs. Siaya has developed the Sweet Potato strategy to better position this crop for commercialization and to attract private sector investment; the document has gone through a technical review and is awaiting public participation. KCDMS and GIZ collaborated to assist Kakamega county to develop a sweet potato strategy, which is due for public participation.

**Institutional and Capacity Strengthening at County Level:** The 2018 IAA for food security policy reform identified various challenges that constrain effective policy reform and agricultural growth in the 12 counties. The challenges included insufficient budgetary allocation (3-5%, which is well below CAADP commitment of 10%), slow process of approval of bills and regulations, and limited capacity on governance and legislative issues. At the county level, key decisions with significant impact on the agricultural sector are made by the legislature comprising of Members of the County Assembly (MCAs), and more specifically by Members of the Agriculture Committee. One of the challenges is the limited knowledge of the MCAs on the role of agriculture in their county’s socio-economic development and the critical investments that are needed for their respective counties to contribute to Kenya’s agricultural transformation.

During Y2 KCDMS held discussions with various development partners and organizations to identify the appropriate approach to capacity building. As a result, two rounds of county-level capacity building are planned for Y3, each serving different, but related objectives.

- The *Super Champions for Change (SC4C) Leadership course* targets Members of the County Assemblies (MCAs) who sit on the Agriculture committee. The training has been planned in collaboration with Africa Lead, who developed the training curriculum. The request for approval of the contract for the consultants who will conduct the training is pending with USAID.
- The other planned training focuses on ‘domestication of National Agricultural Sector Policies and Sector plans. It builds on a curriculum developed by GIZ. During Q2, KCDMS worked with GIZ to refine the policy domestication curriculum and provided technical support during a policy

domestication workshop for sector technical personnel in Western and Nyanza Counties. The revised curriculum will form the basis for a ToT in Y3. Selected county-level trainers will be trained, and they will then train all of the county agriculture staff.

In preparation for the training, KCDMS held county-level meetings with chairpersons of the agriculture committee of the legislature, the speaker and clerks of the Assembly in each county. They discussed the need for capacity building of the members in order to address the identified challenges. The respective county legislatures have all recognized the need for Champions for Change leadership course.



*A focus group discussion during the national agricultural policy effectiveness and public private policy dialogue conference held in Nairobi.  
Photo: KCDMS/ [REDACTED]*

### 5.3 Policy environment to support agricultural markets

**Support to apex organizations for evidence-based advocacy:** During Y3, KCDMS provided policy and technical support to various apex organizations on evidence-based advocacy. Work with the mango TWG and the Chamber of Commerce and Industry (CCI) has already been mentioned in the previous sections. In Q3, KCDMS facilitated and participated in a 5- year strategic plan launch. The launch brought together key actors in the horticulture value chain, including exporters, growers, regulators, equipment providers, and Government. This strategic plan highlighted emerging investment options for affiliate members in the domestic and export market while facilitating members to meet the demands of these changing markets.

In Q3, KCDMS supported Fresh Produce Consortium of Kenya (FPC) to conduct a training of trainers on the new Kenya Standard for fresh produce production (KS1758 Part II). Now that a cohort of trainers is in place, and training materials available, the activity is in the process of releasing an RFA to collaborate with the industry associations to roll out KS1758 roll out with horticulture industry stakeholders and county governments in the 12 counties in Y3.

KCDMS also supported FPC to send a representative to an international food safety workshop in Johannesburg, South Africa. The workshop dubbed ‘Consumer Safety and Trade in Africa’s Agricultural Produce’ sought to create harmonization discuss compliance challenges and Issues facing producers and exporters in Africa regarding food safety.

**Addressing agriculture finance policy issues:** In collaboration with USAID/LMS, USAID/KIM and AFC, KCDMS hosted a stakeholder workshop to define policy initiatives that could be pursued to increase financing to the agriculture sector. Key among policy matters identified included the frameworks for risk-sharing facilities (e.g., credit guarantees), public expenditure/investments for de-risking agriculture finance, and organizing market structures. This consultation meeting was designed to form the agenda for an agri-finance policy conference with key policymakers to be spearheaded by USAID/KIM with support from KCDMS.

## 6 INTEGRATION OF WOMEN AND YOUTH IN AGRICULTURAL MARKET SYSTEMS

The KCDMS priority area 4 promotes integration and mainstreaming of youth and women in the market systems with the aim of increasing agricultural investment for self-employment, value chain service provision and agribusiness development by youth and women within agricultural value chains. The expected outcomes for this are:

- Increased investment for self-employment, value chain service provision and agribusiness startups by youth and women within agricultural value chains
- Improved participation of young people and women in profitable business opportunities across value chains, reducing misconception about entering the agricultural sector
- Reduced barriers for youth and women in accessing finance, stimulating investment in production and off-farm enterprises
- Increased women's capacity to participate in decision - making over investment on production and household incomes.

### *Key highlights in 2019*

During the reporting year, KCDMS has successfully mainstreamed youth and women at different value chain nodes availing them opportunities for economic empowerment. So far over 100,000 people have participated in various KCDMS interventions, 11% of whom were youth (15-29 yrs) and 55% women. The number of women who reported improved participation in household decision making on value chain-investment/expenditure as a result of USG assistance is 14,587 against a target of 10,623 in 2019.

Sixty-seven percent of the individuals who accessed agribusiness credit from formal financial institutions in 2019 were women and 15% were youth. Two of the K-YES groups accessed loans amounting KES 540,000 from KCB Mobigrow for agri-business after the agribusiness training which entailed record keeping financial literacy and enterprise development. With this loan, they have been able to diversify into high-value farming activities.

In January 2019, KCDMS supported the training of 106 K-YES agribusiness trainers through a TOT model conducted by Making Cents International in Bungoma, Kisii, and Migori. Of the trainers who completed the TOT 48% were women and 39% youth. Since the training, community trainers have gone ahead to train a total of 695 youthful farmers in “agriprenurship”. The training has improved the capacities of the youthful farmers in record keeping, savings and financial management, and diversification into high value crops and poultry.

Fodder production is one area where youth have seen commercial opportunities. Six hundred ninety-one youth took up commercial fodder production in 2019 with support of FIPS.

Over 1,000 value chain service providers (mostly youth) embarked on providing services such as spray services, tillage, and extension in 2019. We will see more involvement of women and youth and increased positive changes as the in-kind grants, the poultry interventions, and the VSLA programs take traction in 2020.

### 6.1 Support for market facilitation and linkages for youth and women

***Women and youth-led agribusinesses set to benefit from market linkages:*** During the reporting year, KCDMS facilitated market linkages for youth and women-led agribusinesses with market actors. Examples of how those linkages have yielded desired results are included below.

Makueni Pioneer Machinery Enterprise, a youth-led business fabricating farm equipment and machinery is linked to a European based company, Euromat, that supplies farm equipment. The main aim of the partnership deal is to make Makueni Pioneer Machinery Enterprise a distributor for Euromat products in the region. A retail agency agreement was signed, and it includes capacity-building in installation and after-sale services. KCDMS is linking Pioneer Machinery with smallholder farmers and cooperatives to support in providing alternative equipment/technology to address production challenges.



*Euromart Ltd and Pioneer Machineries Enterprises officials during a partnership meeting*

| Region  | Linkage   | Description | Outcome    |
|---------|---|-------------|------------|
| Western | Delvic Foods enterprises, a woman-led baking enterprise based in Bungoma linked to Siwongo and Munami agro-processors | [REDACTED]  | [REDACTED] |
| Eastern | Market and credit linkage between Global Organic Chicken Ltd. and Kyeni Kya Yathonza Women SHG.                       | [REDACTED]  | [REDACTED] |
| Nyanza  | Sorghum B2B with East African Breweries Limited (EABL)  | [REDACTED]  | [REDACTED] |
|         | Fresh Produce Consortium and OFSP farmers in Siaya  | [REDACTED]  | [REDACTED] |

In Q4, KCDMS facilitated 38 youth involved in agriculture to participate in the Vihiga Youth in Business Forum, a round table hosted by the governor. Market actors and youth exhibited agricultural technologies including fodder bailing. Seven youth from Kaimosi have formed a group as a result of the learning, motivation, and opportunities presented during the forum. The group has been linked to FIPS for training in fodder production and management. Through interaction with FIPS during the event, another 14 youths have planted *Brachiaria* and 6 have received training through Hamisi Youth Group.

In Q1, KCDMS participated in the National Youth in Agribusiness forum that was organized by AgriPro Focus through the Promoting Agribusiness Investment Network and Trade for Youth (PAINT-Y) platform which brings together local, regional and international stakeholders in the agri-food sector with an aim to bring youth into the conversation on issues affecting them in agribusiness development. KCDMS facilitated 12 representatives from youth agribusiness to participate and exhibit their work while learning from others. The groups were able to network with market actors including financial institutions and various service providers.

In Q2 KCDMS facilitated the participation of 5 youth-led enterprises in the national hands of the Future Kenya Skills show in Nairobi. The show provided a forum for public and private Technical and Vocational Education and Training (TVET) institutions to showcase their technical, vocational, entrepreneurship and life skills training opportunities to the youth. The youth groups demonstrated opportunities in agriculture and were able to network and market their enterprises, which included ag-equipment fabrication and horticulture value addition.



[REDACTED] of Makueni machineries demonstrating to students how the harvester works

## 6.2 Enhance agricultural input, production, and processing for youth and women

**Capacity building of youth and women to adopt technologies, skills, and attitudes for increased production:** KCDMS facilitated linkages and capacity building for women and youth in various production technologies with selected market actors and grantees.

In Kitui County in Q1, 16 women from [REDACTED] were trained by [REDACTED] on identification of FAW and pest management. This training was to help the women farmers to protect their crop from the FAW menace. The farmers adopted and attempted to practice what they learned, unfortunately there was drought and the crop failed, and FAW was not an issue.

In addition, KCDMS through FIPS continued to engage youthful farmers and women in commercial fodder activities. Cumulatively 691 youths have been engaged on fodder activities (planting on average 0.25 acres per youth). Of the 691 youths, 67 have sold their fodder earning KES 756,600 (USD 7,566). The young people are given an initial stock of Brachiaria grass seedling (called splits) to multiply. After multiplication, they transplant the splits into a larger field to expand their production. Each one is expected to pass on an equal quantity of planting material to another youth to benefit.



Members of [REDACTED] pose with their value added ALVs

During Y2, a total of 756 women were also trained in commercial fodder production, conservation and preservation by grantees (One hen –[REDACTED] youth: [REDACTED] women; and Nuru Enterprises –[REDACTED] women). Nuru Enterprises plans to contract fodder producers to supply to the enterprise. Follow up is on-going to establish how many of the trained women farmers have adopted fodder value chain as an enterprise.

Ngangani Earth Dam Women Group was linked to AALE, one of KCDMS grantee in Eastern for capacity strengthening in fodder establishment and management. Through AALE's intervention, the group was trained on Brachiaria seed marketing and fodder harvesting using labor-saving technologies like the brush-cutter. The group harvested [REDACTED] kgs of eragrostis seeds (sold to [REDACTED] at KES [REDACTED]/kg through linkage by AALE) and [REDACTED] bales of hay (valued at KES [REDACTED]). The farmers are in the process of establishing a storage facility for their produce.

Oasis Green Africa Ltd, a technology promotion firm based in the Eastern region, trained and demonstrated the use of solar-powered irrigation pumps to the Kalandini SHG. Kalandini SHG is involved in the production of African Leafy vegetables and has [REDACTED] members. The group has requested support to acquire the solar-powered drip irrigation kit through the SI in-kind grant.

***Support the development of women and youth on-farm and off-farm service provision enterprises:***

In January 2019, KCDMS supported the training of KYES agribusiness trainers through a TOT model conducted by Making Cents International in Bungoma, Kisii, and Migori. A total of 106 K-YES community trainers completed the ToT (48% women 39% youth). Thirty-eight community trainers have since trained a total of 695 youthful farmers in agripreneurship. The training has improved the capacities of the youthful farmers in record keeping, savings and financial management, and diversification into high-value crops and poultry.

During the KCDMS annual outcome survey a focus group discussion with youth in Awendo who benefited from the TOT activity revealed that the agribusiness training helped them learn record-keeping, start a savings group, diversify into higher-value chains like dairy, poultry, and horticulture; and provided opportunities for participation in conferences that exposed members to market linkages for fodder and other commodities. Some of the youth have been linked to FIPs Africa for training in fodder production and management.

As previously described, KCDMS facilitated AAK to rollout the SSP program. The aim of the activity is to support technology promotion and facilitate off-farm employment opportunities for youth through spray services. Recruitment has been completed in all counties. So far 156 youth have been trained by AAK. The balance of the training is planned for Y3. CropCare has been contracted to provide BDS support to ensure sustainability of the SSPs as commercial enterprises.

***Support the development of women and youth on farm production-based agribusinesses:*** Through KCDMS support, 1,629 women are set to benefit from mango and passion fruit intensification and/ or diversification following training by the Goshen Farm Exporters. A total of 2,580 smallholder farmers (1,629 women, 951 men) underwent training on good agricultural practices (GAP), post-harvest handling and food security.

***Exposure visits causing positive behavior change and economic benefit:***

KCDMS interventions to support the economic growth and development of farmer groups include exchange and learning visits. In July 2019, [REDACTED] made a learning and exposure trip to [REDACTED] located in [REDACTED]. The visit exposed the cooperative members (33 member) to best practices in poultry production, hatchery, and incubator management and helped them to establish market linkages.

Officials of Jitahidi Women Group in Vihiga County were supported by KCDMS to attend the National Fruits and Vegetables Conference in 2018 where they brokered a deal to supply fresh and dried ALVs to Maseno Hospital. They are currently selling an average of [REDACTED] packets of ALVs, earning about KES [REDACTED] per month. KCDMS is supporting the group to acquire Kenya Bureau of Standards certification to access high-end markets. Working with KCDMS, the group has increased sales by 40 percent.



*Goshen Agronomist training members of and [REDACTED] in Makueni*

**Before:** The [REDACTED] was donated an incubator by Kitui county government in 2017 but it was never installed as members lacked technical know-how.

**After:** The cooperative leadership engaged a technician who installed the incubator and trained two operators on how to use it. To date the incubator has hatched [REDACTED] chicks and currently a batch of [REDACTED] chicks is underway. They sell each chick @ KES[REDACTED] (total of KES [REDACTED].)



During the focus group discussions (see text box for quote), Jitahidi Women Group attributed part of their success in vegetable farming, value addition and marketing to their participation and learning at the Fruits, Vegetables and Herbs conference in 2018, facilitated by KCDMS. During the conference they met two dried vegetable buyers who they continue supplying to date. They now also supply Maseno hospital and brand their products. Having learned the importance of certification, they are now engaged with KEBS for certification of their value-added products.



*“Our incomes have improved. We can take care of our basic needs in the household and even support our husbands in addressing some of the household needs including paying fees. We can make decisions on the use of the incomes that we get from our produce. Our husbands have no issues with allocating land for production because they have seen the benefit. We also share our proceeds with them. They also easily allow us to attend meetings and go on learning trips. Our families are more stable now. There is more love.” Jitahidi women’s group member*

KCDMS through FIPS Africa in collaboration with Seeds of Change Foundation-Mission Grow project, is promoting poultry production to increase incomes and improve nutrition among women of reproductive age and children below five years through egg consumption. FIPS trained 2,600 women on poultry management and business skills and supported 2,497 of them with 10 one-month-old improved chicks. Approximately 50% of the chicks are cocks, to be sold at 4 months, earning approximately KES 2,800 (USD 28) each and the remaining hens will be kept for egg production.

### 6.3 Access to formal and informal financing for youth and women

During the year under review, the activity hosted financing clinics in all the 12 KCDMS counties, with view of strengthening relations between the agribusiness actors and financial institutions with the short and long-



*Equity bank staff in Taveta engage a group of women agri-entrepreneurs during Taveta finance clinic in September 2019*

term objective of stimulating demand and supply of credit. Five hundred fifty-six enterprises participated, gaining agriculture finance knowledge and exposure to financiers. These finance clinics have triggered a positive enterprise change with more agri-enterprises, farmers, farmer groups and service providers accessing finance and building lasting relationships with financial institutions. On the other hand, financial institutions have used the forums to understand their customers better, build new partnerships, and expand their portfolio. Early results show slightly over 1900 farmers accessing formal credit, 6% of whom are women. This number will grow significantly as the number of collaborating MFI partners grows in 2020.

Through the access to finance clinic in Busia County, the [REDACTED] group, was linked to [REDACTED]. [REDACTED] has [REDACTED] members and is involved in horticulture production and table banking. [REDACTED] partners with such women groups and offers them financial literacy training, savings mobilization, and credit access. The group opened a joint savings account, and [REDACTED] of its members have been able to access loans of between KES [REDACTED] to KES [REDACTED] each. The facility has motivated members to increase savings and expand production by acquiring or leasing more land. Currently, 13 of the group members are on their 2nd loan cycle of between KES 60,000 to KES 120,000. The same group has now been linked to [REDACTED] to supply sweet potatoes.

During the reporting period, [REDACTED] was linked to [REDACTED] and [REDACTED]. The group was sensitized on the benefits of savings and good loan management. The group has [REDACTED] members who are involved in table banking, dairy, and vegetable production. Eighteen members of the group have a dairy cow, and each is producing between 5 to 10 liters a day, depending on the season. Their table banking portfolio is KES [REDACTED] which is circulating among members as loans. Four of the members have now opened accounts with [REDACTED] and have started saving in readiness for borrowing to invest in their agricultural activities. KCDMS has linked the group to [REDACTED] for AI services and [REDACTED] for sale of their milk. KCDMS is working towards facilitating collective marketing for the ALVs produced by the members and linking them to a market actor. A meeting is being organized to bring other actors, including input suppliers and buyers, to the group for linkage and sensitization.

[REDACTED] is a woman-led chicken farm in Busia county rearing approximately [REDACTED] chickens. KCDMS facilitated the registration of the business and linked it to [REDACTED]. [REDACTED] has opened an account with [REDACTED] and applied for a loan of KES [REDACTED] to purchase feeds and other poultry equipment. The microfinance institution is currently providing the enterprise with advisory services on financial matters and is processing a loan facility for the business.

[REDACTED] – a recently approved SI grantee involved in ALV production and value addition, was linked to [REDACTED] bank by through KCDMS facilitation. [REDACTED] has [REDACTED] active members and through the linkage facilitated by KCDMS, [REDACTED] of its members were able to open up bank accounts and have received their ATM cards for doing transactions. They have also opened a group account with the same bank. [REDACTED] members have been able to access loans of between KES [REDACTED] to [REDACTED]. More members have applied for loans and are awaiting approval. The group has an active savings and loans activity with a portfolio of about KES [REDACTED] and is targeted for the KCDMS VSLA program to digitalize the VSL activity and further linkages to ALV off-takers.

An MOU between [REDACTED] and [REDACTED] in Taita Taveta brought together [REDACTED] female and [REDACTED] male poultry farmers with the aim of opening bank accounts with [REDACTED] for savings and ease access to agribusiness loans. The MOU includes capacity building on financial literacy and management for group members and facilitation for learning exchange visits to similar projects.

Survey results confirm that most women access credit through VSLAs. The KCDMS Social Inclusion and Access to Finance teams have therefore rolled out a VSLA strengthening program for improved financial management and savings for agricultural investments in Y3. This program will help at least 360 women and youth groups, with over 7,200 individual members, to increase savings, access informal credit, and be linked with formal lending options for agribusiness. The program is also intended to leverage ICT platforms and solutions like [REDACTED] to improve management of VSLAs. KCDMS is contracting three consulting firms to support the VSL related activities, one in each of the three regions. KCDMS plans to pilot SMS based financial literacy training with ARIFU in support of this intervention.

[REDACTED] and [REDACTED] provided financial literacy training for 162 youth and women farmers as part of a pitch for their credit services. The sensitization covered the available loan products, guidance on how to make sound financial decisions on loan usage, repayment, and financial management. KCDMS continues to follow up on how many farmers access loans.

#### 6.4 Grant Opportunities for Women and Youth Engagement in Agriculture

To support the participation of women and youth in the market system program, KCDMS released a special RFA for in-kind grants for women and youth-led agribusinesses. The grants will provide relevant farm equipment with supporting technical assistance, which will help enterprises increase production and provide agricultural services to smallholder farmers in the regions.

## 7 COLLABORATIVE ACTION AND LEARNING FOR MARKET SYSTEMS CHANGE

### 7.1 Monitoring and evaluation

**MEL for PIF grantees:** In a bid to promote stakeholder-driven data collection for decision making, KCDMS has developed a data management system running on the *domain: kcdmsmel.org* that enables all the grantees to upload, edit, review, and download summaries of their data. So far, 30 out of the 37 active grantees are using this system, which comes with all the necessary tools, an elaborate personalized MEL training, and continuous mentorship on simple data manipulation and analysis techniques. The regional MEL coordinators have incorporated grantee data review during the monthly technical monitoring visits as a way of initiating conversations around their data for decision making. The latest round of newly approved grantees will be trained on the system in early Y3.

**Surveys, assessments, and case studies:** The KCDMS 2019 annual outcome survey took place in August and September. It was a random sample survey representative of primary and secondary beneficiaries, stratified by KCDMS commodities and counties. Four surveys were conducted; household survey (sample of 1,578), market actors survey (sample of 80), agri-nutrition survey with women and children 0-23 months using dietary diversity assessment tools (sample of 280), and social inclusion qualitative survey (8 focus group discussions). Outcome indicator results reported above (adoption, hectares, yields, and dietary diversity) are based on the survey findings. An Outcome survey report is also being finalized for sharing.

**Continuous MEL systems improvement through review of MEL plans, manuals, and M&E systems:** During the quarter, KCDMS underwent a Data Quality Assessment (DQA) conducted by a team from the Mission, including the AOR, MEL, Policy, Finance, and Nutrition colleagues. The process involved meetings at both the Nairobi and field offices to explain the entire MEL system, review evidence through stored files, matched with data in the database. This was followed by visits with the market actors (grantees and non-grantees) to ascertain implementation and compliance with the said system. Eight selected market actors were visited in HR1 and SA2. All confirmed high-level compliance with data quality requirements based on guidance from the Mission.



Photo Credit: Judy Odongo/ KCDMS

[REDACTED], a grantee in Bungoma, takes the DQA team through his credit clients on his company's data system that is also responsive to KCDMS data needs

KCDMS will submit the 2020 MEL plan, which incorporates adjustments based on learning from activity implementation in 2019, DQA training as well as DQA feedback by the mission team, and clarification made on certain indicators from the USAID KCDMS Pause and Reflect session on March 27, 2019. The revised MEL Plan will include all participants (new and continuing) consistent with the assumption that there will be a continued expansion of activities from the intermediate partners (i.e., direct contacts), which will promote the continued growth of secondary contacts throughout the LOP. Certain indicators targets will be adjusted upwards and others will be updated downwards.

### 7.2 Collaboration learning and adaptation

**Promoting a learning culture:** During the quarter, the KCDMS Nutrition Specialist, together with a representative of Busara Centre, participated in the 11th Information Communications technology for Development (ICT4D) conference. KCDMS and Busara joined Viamo, a social enterprise reaching users through mobile technology, to make a presentation discussing recent and ongoing applications of ICT for Agri-nutrition training, including KCDMS' use of Talking Books. The event took place in Kampala with 993 attendees from 415 public, private and civil society organizations from 81 countries to exchange good

practice and insights on how to make digital innovation a key process within our organizations, drive innovation, entrepreneurship, and people-centric transformation.

Following the ICT4D, the MEL Director remained in Kampala to participate in the RTI-organized Collaboration Learning and Adaptation (CLA) summit. The summit was attended by 150 staff from all RTI Africa programs, RTI's MEL community of practice, representatives from USAID, other development partners, and Government of Uganda. The event featured experiences (successes and failures) of going beyond traditional MEL to adopt more dynamic learning and adaptation approaches. KCDMS shared insights on the participatory development of an effective project learning agenda and identified lessons and best practices from other activities to incorporate into KCDMS.

KCDMS, in partnership with Busara Centre, has developed a nutrition learning study methodology to be rolled out in Y3. The study will explore two areas:

1. A comparison of the differences in nutritional knowledge and practices using alternative agri-nutrition training methodologies (dialogue cards vs Talking Books),
2. Nutrition outcomes comparing market systems activity participants trained and not trained in nutrition.

The outcomes of the study will be shared with the wider USAID Nutrition Technical Working Group for potential scale-up.

During Q4, KCDMS carried out a staff training on Political Economy Analysis (PEA). Fieldwork activities included focus group discussions and interviews with relevant private and public sector actors to investigate the constraints to agricultural investment in Siaya and Vihiga Counties. The RTI Senior Governance Specialist conducted the training on PEA. The team identified key political economy issues that impact policy reforms of the two counties and program adaptations to address them that will be incorporated in Y3.

**Evidence of systemic change:** KCDMS continues to observe and document evidence of sustainable systems change in the market systems of focus. The Adopt-Adapt-Expand-Respond<sup>27</sup> model provides a useful framework for the narrative, describing systemic change within a market system.

- Adoption is indicative of desired practices.
- Adaptation is a sign of sustainability.
- Expansion is a sign of scale - more players crowding into the desirable practices or adopters expanding geographies and commodities beyond KCDMS focus.
- The response indicates that the wider operating environment is changing as well.

See examples in the table below.

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<sup>27</sup> This is a Model developed by the Springfield Centre, a UK based firm whose main focus is Market Systems Development. Refer to the KCDMS 2018-2022 MEL plan.

**Evidence of systemic change within market systems facilitation activities**

[REDACTED]

**Collaboration, sequencing, and layering with other USAID and non-USAID funded projects/activities:** KCDMS continues to monitor and report on collaboration, layering, and sequencing activities captured in the joint work plans with Livestock Market Systems (ACDI/VOCA), Integrated Smallholder Production Project (FAO), Kenya Youth Employment and Skills (RTI), Mwendu (CRS), and Kenya Investment Mechanism. See section 11 below for more detail, including engagements with non-USAID IPs.

### 7.3 Progress from the communications department

**Capacity building for KCDMS communications team:** The communications team hosted the RTI Senior Communications and Marketing Specialist for a week-long training covering various issues including Bureau of Food Security and USAID communication requirements, the Journey to Self-Reliance, the art of photography and videography, and writing winning success stories. The team benefitted greatly from her insights on the project branding and marketing plan and development of communication pieces.

**Identification of radio stations for partnership in agricultural programming:** The communications department is actively involved in efforts to identify local radio stations to help in the dissemination of key messages towards behavior change. Radio is one of the most utilized mechanisms for disseminating information to most Kenyans in rural areas. According to the Communication Authority of Kenya, 65% of Kenyans listen to the radio. There were 178 radio stations in 2017, up from 139 in 2016. To tap into this largely under-utilized and under-developed space, especially local community radio stations, KCDMS has identified a firm to supply mentors and content developers who will support the selected radio stations to develop agricultural programs.

The team is in the final stages of contracting the firm to identify interested local radio stations for partnership, develop a partnership value proposition document, and carry out the mentorship program. The project will use the identified partner radio stations and other media platforms to disseminate information on market linkages in the dairy and horticulture sectors, disseminate good agricultural practices, promote productivity-enhancing inputs and technologies, enhance access to credit and financial services, and advocate for nutritious diets with adequate dietary diversity.

**The fruit fly free zone campaign (FFFZ) strategy:** KCDMS is collaborating with the Mango Technical Working Group to carry out a major media campaign in support of the fruit fly-free zone. The team worked closely with the productivity component in reviewing and branding the FFFZ campaign strategy during the reporting period. KCDMS completed a review of applications from public relations firms to manage the campaign. The proposed contract was submitted to USAID for approval in Q4. The communications department will work closely with the identified PR firm to run the campaign, including the development of IEC materials to ensure a successful launch, roll-out, and impact within the target audience.

Busara Center for Behavioral Economics undertook a study in Makueni County in June to inform the communication strategies to be deployed in the Fruit Fly Free Zone campaign. The study has three-phases. The first phase involved understanding the perceptions, barriers, and behaviors of farmers around the acceptability and potential uptake of new pest management technologies. Busara has just completed the second phase of the study, which sought to understand the behavioral characteristics of the different groups of mango farmers in Makueni. The findings of this phase will inform the design of campaign messages directed at different audiences. These messages will be vetted by the TWG before rollout in Q1 of 2020. The final phase of the study will test the behavioral impact of alternative communication methods.

**Business Development Service (BDS) Providers Catalogue:** The team supported the market systems facilitation component in developing a catalog of BDS providers in priority value chains and regions. The catalog is being shared with grantees, pipeline grantees, and county governments for sensitization on the existence of BDS services with packages tailored to fit agribusinesses at all levels within the market systems. The team also participated and documented two KCDMS organized Business to Business (B2B) forums for value chain coordination among producer groups, off-takers, finance, and equipment service providers. A learning piece on the B2B forums is under development for sharing with the various stakeholders once approved by the Mission.

## 8 PARTNERSHIPS AND INNOVATION FUND

### 8.1 Pre-award grant management

**Solicitation and review of applications:** KCDMS continued with the review of concept paper applications and proposal for the APS-1 that rolled over to FY2. APS 1 closed in February 2019. APS 2 was issued on March 1<sup>st</sup>, 2019 to closed by December 31, 2019. Below is a summary of the solicitation process as at September 30<sup>th</sup>, 2019.

| KCDMS Grant and RFAs Performance to Date                                |                           |                           |
|---|---------------------------|---------------------------|
| Description   | Total Achieved<br>FY 2018 | Total Achieved<br>FY 2019 |
| Total concept papers received and reviewed (APS, Nutrition, SI-in-kind) | 640                       | 431                       |
| Total proposals received and reviewed (APS, Nutrition, SI)              | 87                        | 157                       |
| Total grants approved by USAID  | 7                         | 56                        |

As at the end of Y2, a total of 63 applications have been approved by the mission. Of these 16 are ICT grants, 3 are nutrition grants, 4 are Social Inclusion grants, and 40 are normal APS grants (market actors).

In addition, through the Partnerships and Innovations Fund, KCDMS has launched three VSLA contracts to train women and youth savings groups, and at the close of Y2 was in the process of finalizing three nutrition contracts to layer agri-nutrition training onto other grantees' value chain activities and 10 BDS contracts to build agribusiness (grantee), cooperative, and financial institution capacity.

**KCDMS Investment Conferences:** Following the review of the concept papers, the grants unit conducted 16 one-day "Investment Conferences" with the potential grantees recommended to proceed to the full proposal stage. The objective of the conferences was to raise awareness and an understanding of the KCDMS grant award process. They also served as a platform to explain the project components and address any concerns the applicants had through a question and answer session and one on one clinics with KCDMS technical staff. This was done to ensure that applicants fully understood the project to assist them in submitting well-designed proposals that would meet the project objectives.

**Pre-award Assessments:** The grants team conducted 117 pre-award assessments for organizations whose proposals were recommended for funding. The objectives of the pre-award are to:

- Ascertain the financial management and managerial capacity of the organization;
- Identify the appropriate financing mechanism and reporting requirements;
- Determine the degree of financial management capacity building needed.

Based on the pre-award assessments, the team was able to determine the risk levels of each organization, make informed decisions on the award mechanism to use for funding and determine the degree of support each organization required.

**Negotiation meetings:** As part of the grant solicitation process, the KCDMS senior technical team conducted individualized grant negotiation meetings with representatives of 86 potential grantees. The objective of the negotiation meetings is to review the initial proposals and budgets submitted and agree on key activities and strategies that the grantees must undertake to meet the Activity objectives. The proposed budgets were reviewed to ensure allowability and feasibility of the costs indicated, and the adequacy/acceptability of the cost-share proposed. The applicant is then asked to resubmit a revised proposal and budget reflecting the agreed adjustments. At year-end about 150 proposals were under various stages of the review and approval process.

### 8.2 Post-award grant management

In FY2, the project received approval for 56 grantees bringing the total to 63. Amongst the proposals approved some were to be executed in multiple counties. A summary of the grantee presence in the counties is as follows:

| Counties                              | Busia | Bungoma | Kakameg | Vihiga | Siaya | Kisumu | Homabay | Migori | Kisii | Makueni | Kitui | Taita Taveta |
|---------------------------------------|-------|---------|---------|--------|-------|--------|---------|--------|-------|---------|-------|--------------|
| # of grantees operating in the county | 10    | 14      | 14      | 8      | 9     | 11     | 16      | 11     | 13    | 18      | 12    | 9            |

**Post Award Training:** Following USAID approval of 56 grantees [(i) 40 cost reimbursement & Fixed Amount Award (ii) 16 ICT], 16 post-award trainings were conducted in Kisumu, Wote and Nairobi to induct the new grantees. The objectives were to:

- Create awareness of the project objectives and deliverables;
- Explain the milestones and disbursement methodologies to the grantee;
- Explain the reporting timelines and clarify the role of KCDMS and the grantee

**Grantee Capacity Building:** Currently, the project has 63 grantees on board. During project implementation several financial capacity gaps have been identified and KCDMS staff have embarked on conducting on the job training with a view to addressing these challenges. During the year the team undertook mentoring exercises with the grantees in their offices. While we have noted improvement there still exists challenges in financial reporting which requires further capacity building.

**Grantee Expenditure:** During the year the project received USAID approval for 56 grantees bringing the total number to 63. The total obligated amount to these grantees is US\$5,212,436. To date the project has spent US\$1,629,700.45 in project activities through the subawards. The grantees have also reported US\$236,804 in cost share.

KCDMS released a second Annual Program Statement (APS)<sup>28</sup> on March 1st, 2019, which will close on December 31<sup>st</sup>, 2019. At that point, a decision will be made as to whether another APS should be issued and for what period.

<sup>28</sup> The APS is a mechanism under which agribusinesses can submit requests for KCDMS funding to co-invest in business upgrades and expansions within the Activity's target value chains.



## 9 CHALLENGES

- High levels of turnover by partner (market actor) staff, especially accountants, have affected the consistency and quality of work in several KCDMS-supported enterprises. Poor governance, low pay, quitting for greener pastures, and employee poaching are among the causes of the turnover. KCDMS has planned BDS support interventions for partners to improve business operations, including performance management and HR, which is expected to mitigate this issue moving forward.
- Many enterprises targeted for KCDMS BDS and ICT promotion programs face challenges in raising the required cost share (25%). Cooperatives face similar challenges. The KCDMS Access to Finance Specialist has been working closely with these enterprises to link them to FSPs with tailored products in order to address the cash flow constraints.
- Price volatility in dairy and horticulture commodities has significantly increased over the past seasons and has negatively affected producers as well as processors and exporters. To mitigate this, KCDMS has been facilitating actors to develop relationships with specialty markets including dairy processors and horticulture exporters who require quality products and whose prices are relatively stable.
- The availability of 100% subsidy on Technical Assistance (TA) support offered to target organizations by other donors, (while KCDMS offers a maximum of 75% subsidy) has slowed the uptake of business development services offered by OCA, EAMDA, and others. KCDMS is working closely with USAID- Kenya Investment Mechanism activity to identify businesses that might require BDS support with a flexible arrangement on financial services.
- The unanticipated change of Members of County Executives (CECs) for agriculture has disrupted the smooth flow of projects initiated by the incumbent CEC.
- Power struggles around control of the county budget, pitting the county assemblies against the executive, have resulted in unresolved budget stalemates in most counties. This may slow down activities in the new government financial year 2019/2020, with adverse effects on ongoing policy and legislative activities.
- Given their private sector orientation, most grantees are not conversant with donor reporting requirements. KCDMS staff have continually offered financial and technical reporting support to ensure continuity of the activity.
- Inadequate grantee financial management systems have affected the rollout of activities due to delays in disbursement of subsequent advances. This negatively affects KCDMS' burn rate, cost-share realization, and achievement of indicator targets. Our planned BDS support for grantees is expected to improve grantee financial management in coming quarters.
- Grant process delays led to several grants not launching until after the 2019 harvest season, especially for mango and avocado. This resulted in lower than expected commodity sales results in FY 2019. Improvements in the grant pipeline process combined with the addition of four new staff to address the backlog and assist companies with data and financial reporting have shown significant results in the last quarter of FY 2019 and into FY 2020. The increasing shift to Fixed Amount Awards and hybrid grants combining FAAs with in-kind grants for equipment should also help expedite grant disbursement.
- The delayed rains and drought conditions experienced at the beginning of the season (Q2 and Q3), greatly affected productivity interventions. For example, improved Napier and sweet-potato planting materials were scarce, reducing FIPS beneficiary coverage by close to 50%. Grantees faced challenges with drying up of home kitchen gardens and vine multiplication nurseries. Grantee procurement and sales were also constrained by low productivity. Yields are significantly lower than expected. The delayed season has affected implementation activities of all of the grantees.
- AI service provision is adversely affected by the county government subsidies. Subsidies are mostly politically driven, with no clear sustainability plan.
- The USG shutdown caused a slow-down in Activity implementation during the month of January, causing delays in the approval for new grants and in the disbursement of funds to the approved grantees.

## 10 LESSONS LEARNED

- While many companies are interested in BDS services, they often lack the financial means to afford the associated cost-share or have insufficient understanding of the value to be willing to pay for it, even at subsidized rates. Many companies are attracted to the KCDMS program because of grant funding; however, they do not always realize that this comes with only partially subsidized BDS as compared to other similar programs that offer 100 percent subsidy on these services. To counter this, KCDMS now requires businesses to sign an undertaking letter confirming availability of the cost-share, collecting cost share in advance of equipment procurement, and linking potential grantees to financial service providers for debt financing towards cost-share.
- To promote diversification for resilience, KCDMS has identified the need to link grantees across value chains to enable farmers to diversify production and venture into new agribusiness opportunities.
- Most of the youth and women-led agribusiness activities are at nascent stages with unstructured business operations. This calls for the engagement of business development services to provide support in developing sustainable business strategies for the groups and facilitate greater participation in the market system. The new Social Inclusion RFA, therefore, focuses on in-kind support for equipment and technical assistance.
- Policies and legislation take a long time and immense resources to develop and are often stalled at the public participation stage due to resource constraints. Leveraging the efforts of other like-minded actors and the state institutions will give the policy and legislative process much-needed impetus to overcome the hurdles of data collection, drafting, review, public participation, and approval by both the county executive and county assembly.
- Animation videos support extension in a way that enhances understanding of complex concepts for knowledge retention and application. One lesson emerging is that the use of soil paste is an alternative low cost and non-toxic option for managing FAW, reducing infestation by up to 87 percent. The use of animation videos to explain this practice has spurred widespread adoption among farmers.
- Most ICT packages do not offer a total solution to agricultural supply chain requirements. It is not uncommon for a single dairy or horticulture enterprise to use more than one ICT solution with varying capacities combined to meet business needs, resulting in a high cost of services. KCDMS is looking into this to determine which ICT products best serve the sector.
- Private sector service providers including banks and equipment providers are willing to tailor their products to meet market demands. For instance, Euromart Ltd, an equipment firm, has developed a flexible payment plan for horticulture processing enterprises and plans to facilitate market actors to visit the equipment manufactures in Turkey for quality assurance and customized specifications.
- Engaging with the household members of young project participants (for example parents and or spouses) during youth's mobilization contributed to goodwill and support for the youths' commercial fodder business. For example, youths whose parents attended mobilization training were readily offered land by the parents for fodder production. Similarly, fodder plots for youths in learning institutions were managed by parents while youths were away. Based on this observation, FIPS will strive to include parents/guardians/spouses during youth mobilization to enhance support for youths' activities.
- Increasingly, KCDMS is working to layer multiple interventions with project beneficiaries, whether those of our grantees or from other USAID FTF IPs, to maximize impact, and ensure optimization of resources.

## 11 LINKS WITH OTHER STAKEHOLDERS

In addition to the various policy and implementation linkages with GIZ, FAO, AVCD, LMS, KIM, Africa LEAD, KEPHIS, MoALF, and other GOK actors reported throughout the previous sections, the Activity collaborated with several USAID-supported Implementation Partners and other organizations as detailed below.

### 11.1 Linkages with other USAID and Development Partners

KCDMS monitored the joint work plans developed with various USAID-funded IPs. Some key highlights include:

- **Mwendo:** KCDMS has always included Mwendo groups and their local implementation partners in A2F and B2B activities. AGRISS, a local implementing partner with Mwendo has now been onboarded as one of the nutrition grantees. Mwendo caregivers have formed 88 producer marketing groups who will be linked to grantees for market systems interventions. Mwendo affiliated groups are also being considered for upcoming VSLA training.
- **FAO-ISPP:** KCDMS integrated 3 ISPP supported groups from the Eastern Region with a total of 82 farmers into market systems activities through social inclusion and other activities. Leaders from two groups were invited for a nutrition activity that took place in the region at the end of Q3. One of the groups from Makueni county was linked to Goshen Farm Exporters (KCDMS grantee) on mango and passion fruit marketing and training on good agricultural practices.
- **Feed the Future Eastern Collaboration, a KCDMS initiative:** Since April, the Feed the Future IPs, i.e. AVCD, FAO-ISPP, KIM, ICRISAT, and KCDMS have conduct monthly meetings to discuss collaborative efforts opportunities to leverage on each other's strength. Achievements so far include:
  - active participation in the pest-free area establishment alongside other members of the mango technical working group and the county government of Makueni;
  - collaboration on nutrition ToT training and nutrition messaging;
  - exchange visits between KCDMS dairy groups and successful AVCD dairy cooperatives;
  - BDS intervention with Kathonzweni dairy building on AVCD successes;
  - introducing the ICRISAT promoted drought-tolerant crops like drought-tolerant sorghum and fodder to farmers and KCDMS grantees like AALE.
- **KIWASH:** KCDMS supported nutrition training (community dialogue cards and practical sessions) for 248 groups (6,000 individuals) formerly under the KIWASH nutrition activities. Since then many of these groups have been integrated into KCDMS market systems activities. They will also be included in the upcoming nutrition learning study.
- **NHPplus** trained 60 KCDMS stakeholders, SMEs, and farmers, in a 3-day Value Chain Development training in Eastern and Western Counties. KCDMS is working with NHPplus mother to child groups, already well trained on nutrition, and integrating them into market systems activities geared towards women's empowerment, income, and productivity as pathways to nutrition. Those integrated will be participating in the nutrition learning study.
- **KIM:** KCDMS, KIM, OCA, and USAID are exploring BDS for financing delivery models that will be attractive to the target organizations to counter the challenge expectations for subsidized BDS.
- **KCDMS** partnered with Alliance for Inclusive and Nutritious Food Program (AINFP), a USAID funded project implemented by TechnoServe, to provide technical support to KCDMS grantees engaged in food processing. AINFP offers technical assistance on food quality, safety, and product handling across the processing chain. During the quarter, AINFP held discussions with the following KCDMS grantees; Goshen, Kitui Enterprise Promotions Ltd, BTF and Kathonzweni Dairy (from SA2), E&A and Gradale (from HR1) opening the door for potential technical support.
- **KYES:** KCDMS held a joint training with KYES, this has seen a total of 695 youthful farmers trained on Agripreneurship, others were linked to FIPs for further training in fodder production.

## 11.2 Linkages with other stakeholders

In year two of the project implementation, the KCDMS team undertook the following activities to leverage stakeholders' activities:

- KCDMS participated in 3rd Annual Agribusiness Investors Summit themed “Post-harvest Management and its Impact on Food Security and Nutrition” held at the Strathmore University Business School from 28-29 March 2019. Discussions focused on food safety and post-harvest losses, strategies to guarantee quality and minimize losses as well as waste management.
- KCDMS participated in the launch of the OFSP project by Sweet Potato Centre. The project seeks to collaborate with several private and public partners for successful and sustainable implementation. The meeting sought to create awareness and allow participants to understand the objectives and implementation modalities, engage the stakeholders and brainstorm on the best implementation strategies for the project success, identify synergies and opportunities for collaboration among various stakeholder organizations.
- KCDMS participated in the Disruptive Agricultural Technology (DAT) Challenge and Conference hosted by the World Bank and Ministry of Agriculture, Livestock and Fisheries. The workshop looked into increasing access to low-cost and accessible data in agriculture to enable other entities to serve farmers better. The conference was part of the One Million Farmer Initiative<sup>29</sup> aimed at creating a platform that leverages disruptive agricultural technologies to reach one million farmers. Several of the KCDMS pipeline grantees participated.
- KCDMS participated in the launch of TradeCare (Mazao Safi) trading platform for fresh fruit and vegetables (FFV). The meeting brought together Wageningen University, the National Chamber of Commerce, traders, farmers, and hoteliers. The platform will allow traders and consumers to trade on fresh fruits and vegetables with full traceability and enhanced food safety.
- KCDMS partnered with GIZ, FAO, AgCK, and the MoALF on policy interventions such as curriculum development, training, and co-hosting of PPD forums and technical working groups.
- GOK and County Governments: KCDMS has been working closely with both the county and national Government as discussed in the policy section of this report.



*Members of the Agri-nutrition technical working group and keynote speakers pose for a photo during the National Agri-nutrition Conference held at Safari Park hotel in Nairobi*

<sup>29</sup> The “One Million Farmer Initiative” formed by The World Bank Group has the goal of identifying Kenya’s most promising agri-tech innovations with the aim of getting one million Kenyan farmers onto a digital platform over the next three years

## 12 CONTRIBUTION TOWARDS IMPROVED NATURAL RESOURCE MANAGEMENT

As part of our sustainability strategy, KCDMS continues to address climate and environmental risks that might undermine systemic change. To support this effort, the activity domesticated climate resilience and adaptation activities through our comprehensive Climate and Conservation Smart Agriculture Plan 2018 - 2022 (CCSA). Consequently, KCDMS developed a set of 4 SMART indicators for integration into the primary performance indicators to specifically measure overall EMMP progress against sustainability measures introduced by the project through various interventions. These indicators appreciate the renewed effort to mainstream climate resilience by the Feed The Future initiative. The CCSA indicators are just an additional disaggregation of existing KCDMS indicators.

They are annual indicators. Results were collected during the annual impact survey:

| # | CCSA Indicators: Disaggregated KCDMS Indicators  | Y2 Results  |
|---|--|-------------|
| 1 | Number of smallholder farmers (with improved resilience) using climate-smart technologies and management practices introduced by KCDMS as a result of USG assistance | 39,598      |
| 2 | Number of firms adopting and or promoting climate-smart technologies with USG assistance   | 20          |
| 3 | Number of laws, policies, regulations, or standards addressing climate change adaptation formally proposed, adopted, or implemented as supported by USG assistance   | 8           |
| 4 | Amount of investment mobilized (in USD) for climate change adaptation as supported by USG assistance   | \$7,147,660 |

In keeping with the plan, KCDMS activities were subjected to the CCSA screening, with most of them passing as climate-smart while a few others are passing as climate neutral. Overall, KCDMS and its partners implemented several interventions that contributed to enhancing the resilience of market actors and target groups. In FY 2019, KCDMS employed several approaches aimed at improving the resilience of farmer households in the face of increasing challenges arising from climatic and anthropogenic factors. Among the interventions undertaken towards improved resilience included:

### 12.1 Improving Farmer Resilience through Conservation Agriculture and Improved Technology Adoption

In collaboration with our partners FIPS-Africa and the McKnight project, KCDMS continued to promote technological options to farmers to address the low pH levels of their soils to improve crop performance and yields. Under this effort, the activity demonstrated standard Calcium Carbonate Lime (Super Calcium Fertilizer) and Burnt Calcium Oxide Lime (Maxi Calcium Fertilizer) on sweet potato and banana in addressing the soil pH which is a significant problem in most parts of Western Kenya. FIPS supported 40 VBAs in Bungoma, Kakamega, Vihiga and Busia counties to carry out 1,111 lime demonstrations on maize and sweet potatoes among farmers in collaboration with Homa Lime and Athi River Mining. Analyzed data suggests that super lime (Calcium carbonate) has faster effects on maize with observation made from growth rate, size of maize ears, color, etc. The VBAs and FIPs staff were trained on soil nutrition and provided with the necessary equipment to offer pH testing services to farmers. Sharing appropriate recommendations for maintaining good soil nutrition status is part of the service. Support for the equipment was part of the McKnight project cost share from FIPs.

KCDMS through FIPS-Africa continued to promote innovative soil and water management practices, like the deep tillage technology using spring and chisel plows. Through this effort, 1,530 acres (619 ha) were deep plowed in Makueni County, breaking the hardpan for increased production as well as conservation agriculture. In Western Region, this technology was introduced to 9 service providers in Kakamega and Bungoma Counties by conducting 21 demos. KCDMS continues to monitor and report uptake.

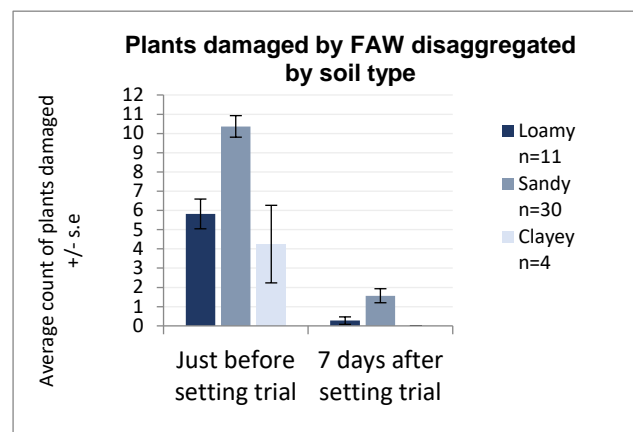
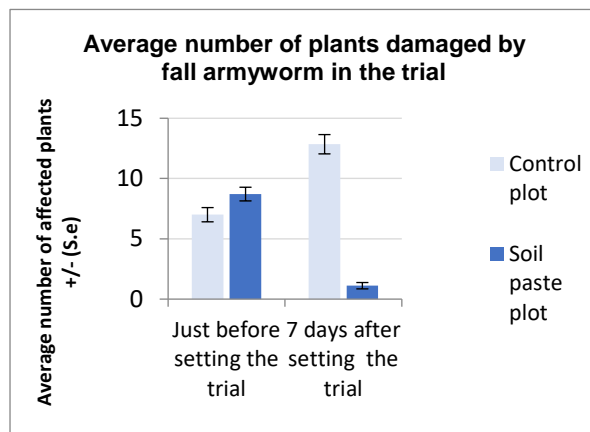
In partnership with other stakeholders, KCDMS initiated capacity strengthening for the agro-dealers on chemical waste management and general environmental compliance issues. The associations were inducted on safe spraying and disposal of empty pesticide containers (EPCs). In addition 156 SSPs have been trained

on the provision of professional spray service commercially, a skill that will earn them income while improving yields and production of safe food.

Through KCDMS facilitation, hermetic storage (HST) standards have been developed and gazetted. Sensitization and promotion to rural households begins in Q1 of FY2020.

KCDMS facilitated the formation of a Mango Technical Working Group (TWG) to support a comprehensive IPM campaign to sensitize and create awareness on fruit fly control with the target of creating Pest-Free Areas. KCDMS is responding to the need to strengthen local farmers' capacity to respond to the impacts of climatic changes that bring about increasing pest infestation in the mango value chain.

KCDMS, in partnership with the McKnight project, conducted experiments among 45 farmers on FAW-infested maize plots in Bungoma and Kakamega counties using soil paste as a cultural control option. The findings suggest that soil paste is a low cost, non-toxic option that farmers can apply on their farms for improved productivity. Results of the experiment showed that infestation by FAWs reduced by up to 87% when soil paste of the right context is used (clay soils seems to work better than loamy and sandy soils.) Results graphs shown below. KCDMS will use this evidence going forward to advise on FAW management, and as adoption increases, maize production per unit area increases, hence freeing up land for targeted high-value crops like fodder.



KCDMS through FIPS-Africa promotes adoption of farmer training using Scientific Animations Without Borders (SAWBO) animations video to complement farmer training on FAW. So far, 1,585 farmers are learning using this methodology and have increased their understanding of key concepts. This methodology is increasingly generating interest among other farmers.

During the period, KCDMS hosted USAID consultant, Arrienne Neigh who conducted a SUAP evaluation and visited an agro dealer and 2 farmers as well as spray service provider teams to assess their capacity to handle, store and dispose chemicals at farm level and the environmental impact on the use of agricultural inputs including pesticide use, fungicides, insecticides and other chemicals.

## 13 FINANCIAL INFORMATION

[REDACTED]

## ANNEX 1 SUCCESS STORY

[REDACTED]

## ANNEX 2 GPS DATA FOR FIELD ACTIVITIES

The full list of GPS coordinates is provided as an unattached annex.

[REDACTED]



## ANNEX 2 GPS DATA FOR FIELD ACTIVITIES

[REDACTED]

ANNEX 3 SUMMARY OF POLICY ACTIVITIES BY REGION COUNTY,  
CROSS-COUNTY, NATIONAL AND INTER-GOVERNMENTAL LEVELS –  
YEAR 2

[REDACTED]

## ANNEX 4 FY 2019 PROGRESS AGAINST ANNUAL WORK PLAN

[REDACTED]

**ANNEX 5 ACTIVE GRANTS PERFORMANCE AGAINST KEY INDICATOR TARGETS AS AT SEPT 30, 2019**  
**[REDACTED]**



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

## KENYA

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