Food and Agriculture Organization of the United Nations

UTF/KEN/083/KEN
Terminal Report

FAO/UNILATERAL TRUST FUND

TECHNICAL ASSISTANCE FOR KENYA SMALL-SCALE IRRIGATION AND VALUE ADDITION PROJECT (TA-KSIVAP)

KENYA

PROJECT FINDINGS AND RECOMMENDATIONS

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

ROME, 2023

UTF/KEN/083/KEN
Terminal Report

FAO/UNILATERAL TRUST FUND

TECHNICAL ASSISTANCE FOR KENYA SMALL-SCALE IRRIGATION AND VALUE ADDITION PROJECT (TA-KSIVAP)

KENYA

PROJECT FINDINGS AND RECOMMENDATIONS

Report prepared for
the Government of Kenya
by
the Food and Agriculture Organization of the United Nations

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Rome, 2023

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned. The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

The Food and Agriculture Organization is greatly indebted to all those who assisted in the implementation of the project by providing information, advice and facilities.

TABLE OF CONTENTS

		Page
LIST OF ABBREVIATIONS		vii
A	OVERVIEW	1
A1	Project profile	1
A2	Financial data in USD	2
A3	Executive summary	2
B	RELEVANCE	4
C	ACHIEVEMENT OF RESULTS	10
D	IMPLEMENTATION OF WORK PLAN AND BUDGET	22
E	SUSTAINABILITY	26
F	LESSONS LEARNED	29
G	FOLLOW-UP ACTIONS FOR GOVERNMENT ATTENTION	30
H	HUMAN INTEREST STORY	30
Appendix 1	LOGFRAME MATRIX– ACHIEVEMENT OF INDICATORS	33
Appendix 2	PROJECT STAFF	35
Appendix 3	TRAINING AND STUDY TOURS	36
Appendix 4	MAJOR ITEMS OF EQUIPMENT PROVIDED	37

TABLES

		Page
Table 1	Beneficiaries	17
Table 2	SDGs and TA contribution	21

LIST OF ABBREVIATIONS

ABDP	-	Aquaculture Business Development Programme
AfDB	-	African Development Bank
ASDSP	-	Agricultural Sector Development Support Programme
BMC	-	Business Model Canvas
CA	-	Conservation Agriculture
CBF	-	Community-Based Facilitator
CEV	-	Community Extension Volunteer
CHV	-	Community Health Volunteer
CCU	-	County Coordination Units
CIDP	-	County Integrated Development Plan
CNA	-	Capacity Needs Assessment
CPIT	-	County Project Implementation Team
CD	-	Capacity Development
CPF	-	Country Programming Framework
FNLTWG	-	Food and Nutrition Linkages Technical Working Group
GAFSP		Global Agriculture and Food Security Programme
GAP	-	Good Agricultural Practices
GiZ	-	German Agency for International Cooperation
HCD	-	Horticultural Crops Development
IFAD	-	International Fund for Agricultural Development
IPM	-	Integrated Pest Management

KALRO	-	Kenya Agricultural and Livestock Research Organization
KCSAP	-	Kenya Climate Smart Agriculture Project
KSIVAP	-	Kenya Small-Scale Irrigation and Value Addition Project
M&E	-	Monitoring and Evaluation
MoALF&C	-	Ministry of Agriculture, Livestock, Fisheries and Cooperatives
MTR	-	Midterm Review
NARIGP	-	National Agricultural and Rural Inclusive Growth Project
NGO	-	Non-Governmental Organization
NPC	-	National Project Coordinator
NSAFS	-	Nutrition Sensitive Agriculture and Food Systems Programming
PCU	-	Project Coordination Unit
PO	-	Producer Organization
PPR	-	Project Progress Report
SDG	-	Sustainable Development Goal
TA	-	Technical Assistance
TOT	-	Training of Trainers
UNDAF	-	United Nations Development Assistance Framework
WB	-	World Bank
WFP	-	World Food Programme

A. OVERVIEW

A.1 PROJECT PROFILE

Country	Kenya
Project Symbol	UTF/KEN/083/KEN
Project Title	Technical Assistance for Kenya Small-scale Irrigation and Value Addition Project (TA-KSIVAP)
Resource Partners	Global Agriculture and Food Security Programme (GAFSP) through Government of Kenya
Actual EOD	1 July 2016
Actual NTE	30 June 2022
Participating Organizations (e.g. Ministry of Agriculture, etc.)	Ministry of Agriculture, Livestock, Fisheries and Cooperatives (MoALF&C), African Development Bank (AfDB)

Implementing partners (list):

Name	Type (NGO/Community Based Organization/Gov.)	Total Funds Transferred
MoALF&C	Government	1 200 000
State Departments of Agriculture and Livestock in the county governments of Bomet, Kajiado, Kitui, Machakos, Makueni, Meru, Murang'a, Nyandarua, Nyeri, Tana River and Tharaka-Nithi.	Government	N/A

Contribution to FAO's Strategic Framework ***Indicate the title of each higher level result to which the project contributes***	
Sustainable Development Goals (SDGs)	1, 2, 5, 8 and 12.
FAO Programme Priority Area(s) (PPA/s)	Better Production 4: Small-scale producers' equitable access to resources (which includes markets, services, information). Better Nutrition 1: Healthy diets for all.
Regional Priority Area/Initiative	Africa's Renewed Partnership to End Hunger by 2025
Country Programming Framework Outcome(s)	CPF Output 2.1: Selected value chains are strengthened. CPF Output 2.2: Entrepreneurship capacities of agri-value chain actors strengthened. CPF Output 3.5: Agrinutrition programmes enhanced.
UNDAF Outcome(s)	Outcome 3.2: By 2022, productivity in services sectors, agriculture, manufacturing, extractives, blue economy and their value chains increased.

A.2 FINANCIAL DATA in USD[1]

Latest Approved Budget	USD 1 200 000

A.3 EXECUTIVE SUMMARY

The agriculture sector in Kenya is critical to the national economy and has been identified as a priority area in national strategy and policies contributing to improving food security and nutrition. The Government, in line with Kenya Vision 2030, has launched a strategy to transform smallholder agriculture from its subsistence status into a modern, sustainable, commercially oriented and competitive sector. In support of this strategy, a GAFSP-supported project, "The Kenya Small-scale Irrigation and Value Addition Project-KSIVAP", was designed to enhance smallholders' agricultural competitiveness and food and nutrition security in eleven counties. The project required robust institutional, organizational and technical capacity at national and county levels to effectively deliver on its mandate and functions.

With the devolution of agriculture in 2010, the extension service, fundamentally at county level, had already presented critical capacity gaps, notably weak business, technical and managerial capacity, in providing adequate technical support for the commercialization of smallholder agriculture. In light of this, a targeted GAFSP-supported Technical Assistance (TA) project, was awarded to provide technical support and to complement KSIVAP's institutional and human capacity strengthening and performance development of national and county coordination units through three main outputs. The project carried out an initial capacity needs assessment (CNA) to identify and confirm the skills gaps at national, county and producer group levels.

Output 1 supported the strengthening of management and coordination of a cadre of trainers, mostly from the KSIVAP Project Coordination Unit (PCU) staff, and project desk officers of county coordination units (CCUs). This was achieved through technical guidance, follow-up organizational advice, support during start-up sensitization and planning workshops, initial site visits, consultative meetings and technical backstopping. Additionally, targeted training was delivered to support project planning and management, and a monitoring and evaluation (M&E) internal monitoring system.

[1] Data source: FPMIS/Data Warehouse.

Output 2 aimed to enhance the technical capacities and skills of extension officers and producer organizations (POs) to support development activities at KSIVAP sites, specifically in agricultural productivity, food and nutrition security, agribusiness development and market linkages. This was achieved through knowledge transfer in good agricultural practices (GAP), in nutrition-sensitive agricultural interventions, and in the strengthening of the market-based approach to increase productivity for poverty reduction and income generation. The initial training of trainers (TOT) approach proved insufficient to reach the target beneficiaries and was replaced with an innovative solution: farmer-to-farmer extension approach. Frontline PO leaders, lead farmers and out-of-school youth with agricultural qualifications were identified, trained, and enabled to participate in TA project activities as Community-based Facilitators (CBFs) or Community Extension Volunteers (CEVs). This approach achieved mass outreach to farming communities. Uptake and adoption were high as a result of increased follow-up and monitoring, and the use of local languages, particularly in regions where literacy levels of smallholder producers were low. Training highlights included those provided in the use of the RuralInvest methodology and toolkit, and the Business Model Canvas (BMC) tool to appraise and prepare investment projects' income-generating activities and business plan/proposals. Led by FAO, the project also supported, under the Food and Nutrition Linkages Technical Working Group (FNLTWG), the regeneration of training curricula and materials by developing two core products for state and non-state actors involved in designing and implementing nutrition-sensitive agriculture and food systems programmes: An agrinutrition training manual; and the National Nutrition Sensitive Agriculture and Food Systems Programming (NSAFS) package.

Under Output 3, the project facilitated the development and operationalization of the KSIVAP M&E system establishing a monitoring framework and data collection tools, and delivering capacity-building and coaching to 108 participants. Technical coaching indicated high success in understanding, adoption and practical use, with probable replication in other PCU projects. The output included a final progress review meeting with 43 participants (18 female and 25 male) to present the project's results, achievements and challenges. The training areas covered were rated highly relevant to the needs of counties.

The TA benefited 658 participants (42 percent female); this was considerably above the project target of 170. The beneficiaries included 534 (231 female and 303 male) government staff members (frontline extension staff, agribusiness and market development experts), 51 (16 female and 35 male) PO and farmer leaders, CHVs (33 [21 female and 12 male) and 40 (10 female and 20 male) out-of-school youth (CBFs/CEVs).

Indications suggest that much of the support provided by the project will be sustainable and institutionalized into national and decentralized systems. Some target counties plan to incorporate new activities (marketing, business planning, agrinutrition) into their budget allocations and county integrated development plans (CIDPs). The project has stimulated the naming of nutritional focal points to coordinate agrinutrition interventions in counties, while the National NSAFS will serve as the principal nutrition-sensitive agriculture training package in the country. Furthermore, synergies have been established with other national programmes, including those supported by many development partners, who have expressed interest in the uptake of new materials (such as RuralInvest) promoted by the project.

B. RELEVANCE

The problem

Food and nutrition security remains a challenge in Kenya, despite significant opportunities to increase agricultural potential. The agriculture sector, dominated by smallholders, is characterized by low productivity as a result of low and unreliable rainfall, degraded land, the limited use of agricultural inputs and inadequate access to improved technology and markets, with incidences of food insecurity being more prevalent and more severe in the arid and semi-arid areas. The sector provides a livelihood (employment, income, and food security needs) to over 80 percent of the Kenyan population and contributes to improving nutrition through the production of safe, diverse and nutrient-dense foods.

To eradicate poverty and achieve food security and rural prosperity through the creation of wealth and employment, Kenya Vision 2030, launched in 2008, laid out the government strategy aimed at transforming smallholder agriculture from subsistence status into a modern, sustainable, commercially oriented and competitive sector by addressing a series of key challenges, including low production and productivity, constrained land use, inefficient markets and limited value addition. The Kenya Small-scale Irrigation and Value Addition Project of MoALF&C, funded by AfDB, was designed to contribute to the achievement of this strategy by enhancing smallholders' agricultural productivity, and improving food and nutrition security in eleven counties: Bomet, Kajiado, Kitui, Machakos, Makueni, Meru, Murang'a, Nyandarua, Nyeri, Tana River and Tharaka-Nithi.

The implementation of KSIVAP required strong institutional and technical capacity within public and private institutions, both at national and, fundamentally, at county levels, as the counties are responsible for extension service provision, following the adoption of a devolved system of government in Kenya in 2010. This led to the devolution of agriculture, including extension services, which became the full responsibility of county governments. The responsibility for policy development, planning and financing, and monitoring was expected to remain at national level.

The devolution and subsequent transition presented critical gaps, including weak business, technical and managerial capacity at national and county level, constraining effective delivery and the capacity to provide adequate extension services support for smallholder agriculture commercialization. During the project-led CNA, the PCU and County Project Implementation Teams (CPITs) identified low capacity in integrating nutrition-sensitive interventions into agricultural programmes and extension, weak supportive business and entrepreneurial skills, including the development of business ideas and plans and linking producers to markets, and a weak internal monitoring system in terms of closely aligning performance indicators of the investment project to its output and outcomes. The PCU and CPITs indicated that they had inadequate access to training content and materials, and to appropriate technologies to support small-scale producers to manage risks better and increase productivity while ensuring food security and improved household nutrition.

In planning the investment project, MOALF&C raised the need for capacity-building support through TA to reinforce the ability of KSIVAP national and county project implementation teams to fulfil their mandate. The project would benefit from enhanced PCU, CCU and CPIT project management and implementation skills and technical capacities: competencies required to monitor project progress and gather project achievements at project and field levels, institutionalize nutrition in the agricultural sector, and support producer organizations to replicate and scale up inclusive and sustainable agribusiness development to enable them to benefit from broader commercialization trends.

The response

The objective of the TA project was aligned to the KSIVAP, the overall objective of which is to contribute to poverty reduction by ensuring increased agricultural productivity and incomes, and food and nutrition security among beneficiaries in the 11 counties. Specifically, the project would strengthen the institutional, technical and organizational capacities of national and county government staff to successfully implement and monitor KSIVAP activities, including project management, as well as developing technical skills and

the capacities of public and private stakeholders to deliver efficient extension services and technical support at KSIVAP sites. Specifically, the TA project would strengthen the national and county coordination units in project management, including M&E, and complement their technical training in GAP, agrinutrition-sensitive interventions, agribusiness management and market development initiatives for improved smallholder commercialization and competitiveness, and increased food and nutrition security.

The strategy used to meet these objectives was to target and give priority to the PCU, CCUs and CPITs, as well as to POs, in terms of human and organizational capacity building to increase agricultural productivity and incomes, with a focus on agribusiness and market linkages, food security and nutrition-sensitive agriculture in the 11 counties. The strategy was initiated through a CNA of skills gaps at national, county and PO level that confirmed the technical gaps already identified during the devolution of agriculture. The primary strategies of intervention across the three main outputs and corresponding activities comprised TOT, technical workshops, technical guidance, on-the-job training, follow-up and backstopping, and the development of technical and training materials.

The TA project contributed directly to the implementation of the KSIVAP and therefore shares its impact ("to contribute to reduced poverty and food insecurity in the 11 counties") through strengthened human, technical and organizational capacity (knowledge and skills) of government technical staff and private small-scale business service providers in the thematic areas of planning management and monitoring, GAP, agrinutrition-sensitive interventions, agribusiness, and market development. Activities were organized around three outputs, as follows:

- Output 1: KSIVAP's PCU and CCU members' knowledge and skills to oversee and coordinate the implementation of KSIVAP enhanced.
  - Activity 1.1. Conduct a joint stakeholder capacity assessment to identify capacity gaps at national and county level to successfully implement KSIVAP activities.
  - Activity 1.2. Provide training, guidance and support in developing managerial and organizational capacity at national and county level to strengthen operations and mandates in order to implement KSIVAP activities successfully.
  - Activity 1.3. Provide organizational advice, guidance and support to KSIVAP PCU and CCUs to coordinate and implement project activities.

- Output 2: Capacity of county government technical staff and local private extension service providers to facilitate increased agricultural productivity and incomes, and food security enhanced.
  - Activity 2.1. Conduct a capacity assessment to identify the technical capacity gaps at county level to successfully implement KSIVAP capacity-building activities.
  - Activity 2.2. Support the regeneration of training curricula and materials for developing skills and capacities at county level based on the outcome of the capacity assessment.
  - Activity 2.3. Provide technical staff with the competencies required to promote increased agricultural productivity, improved household nutrition, agribusiness and market development.
  - Activity 2.4. Support KSIVAP in organizing appropriate study tours/exposure visits
- Output 3: Support to the KSIVAP M&E system provided.
  - Activity 3.1. Support the PCU M&E team in planning, monitoring and evaluating key project results in the project areas.
  - Activity 3.2. Support monitoring of KSIVAP's capacity development (CD) activities and provide technical backstopping at county level.
  - Activity 3.3. Hold county stakeholders' implementation progress review meetings.
  - Activity 3.4. Prepare and submit progress reports.

No significant changes were made to activities under Output 1, while some revisions and adjustments were required for Outputs 2 and 3, including: introducing and training the CBFs/CEVs to accelerate and broaden CD outreach; and introducing RuralInvest training, based on identified weaknesses in income-generating activity appraisal and proposal preparation. Other changes of note were the exclusion of study tours/exposure visits owing to the non-synchronization of activities and the COVID-19 pandemic, and the enhanced support beyond the PCU M&E team in planning, monitoring and evaluating key project results in the project areas to reach the CPITs.

The TA project worked at national level and in the 11 counties aligned with the KSIVAP project. Each main output/thematic area of the project had specific planned target beneficiaries, as described below.

Under Output 1, the TA project targeted 60 beneficiaries, both female and male, for the enhancement of project management and organizational skills, including five staff members from the PCU based at ministry headquarters, and 55 staff members (five from each county) from the CCUs based at the respective 11 county headquarters of Bomet, Kajiado, Kitui, Machakos, Makueni, Meru, Murang'a, Nyandarua, Nyeri, Tana River and Tharaka-Nithi. A total of 43 government staff beneficiaries received training in project management skills and knowhow. The orientation of training in terms of needs became flexible as a result of turnover in PCU staff, as new management ascribed to particular needs other than project management.

Under Output 2, the project targeted 33 county government technical officers with varied expertise to be trained as TOT trainers at county level, with the aim of complementing KSIVAP training and cascading that training to frontline extension staff and POs in the 17 project sites in the 11 counties. The technical officers would incorporate nutrition interventions into their day-to-day extension work, and develop skills and knowhow that would assist extension service providers to build strong community-based institutions able to maintain the infrastructure as well as manage the marketing of their products while infusing sustainability into project activities. However, "remedial" action was agreed on with KSIVAP and undertaken to reinforce the direct skills-building of producers when it became apparent that the TOT cascading approach was not reaching frontline extension staff and smallholder producers. This was caused by a lean extension service simultaneously allocated to other projects in the counties, and to delays in the flow of project funds to the counties, among other reasons. The PO leaders, including those of water users' associations, lead farmers and out-of-school youth with agricultural qualifications were consequently identified and trained as CBFs/CEVs in various thematic areas. The participants of this training totalled 140 (41 female and 99 male) including 49 (15 female and 34 male) frontline extension staff.

To further support agrinutrition interventions, 33 Community Health Volunteers (CHVs), serving as CBFs, were also trained directly by the TA project in agrinutrition. A further addition to the TA was RuralInvest training, for 29 participants. This led to a total of 202 participants trained under this output. Furthermore, with reference to the initial targets, an additional 262 government staff attended TA project activities under Output 2, with a focus on nutrition and various value chain/agribusiness themes. This increase was recommended in the CNA and agreed on with the government.

Under Output 3 the number of PCU M&E team members targeted to be mentored in the use of monitoring tools was five. However, following agreement with KSIVAP (May 2021), TA M&E support was considerably increased, notably in training on registration and activity monitoring, to cover a total of 108 participants (33 female and 75 male) including PCU, CPIT and other government key front-line staff.

As explained above, this TA project was in direct synergy with the AfDB-funded KSIVAP, as well as building on previous FAO-implemented projects of note, such as the Increased Smallholder Production and Productivity project, funded by the United States Agency for Agricultural Development, on increasing household food security and nutrition in four of the 11 counties, under which synergies were built with agribusiness promotion among county staff, including nutrition (food preparation and preservation) and market linkages. Makueni and Kitui counties indicated positive synergies notably with agrinutrition (kitchen gardening, vegetable drying and improved dietary practices) and market linkages. The project also built on the ongoing Kenya Cereal Enhancement Programme-Climate Resilient Agricultural Livelihoods window, implemented by FAO, the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP) and promoting the graduation of small arid and semi-arid land farmers to commercially oriented farming for targeted value chains through climate-resilient agriculture in four of the 11 counties. Makueni and Tharaka-Nithi indicated positive synergies on GAP, Conservation Agriculture (CA) and market linkages for grains.

The agricultural staff members implementing KSIVAP are not exclusively project staff and have been involved in sharing expertise, insights and competencies acquired through the TA project and cross-fertilizing these to address the same or related issues in other projects on agrinutrition, agribusiness and market access, and M&E. This created synergies and alliances during implementation, complementing other projects, including: Agricultural Sector Development Support Programme (ASDSP) Phase Two (funded by the Swedish Development Agency) on priority value chains, entrepreneurial skills development, and access to markets in the 11 counties; the IFAD-supported Aquaculture Business Development Programme (ABDP; on value chain development in four of the 11 counties, with Nyeri County indicating positive synergies on business planning/enterprise development planning); the Kenya Climate Smart Agriculture Project (KCSAP), supported by the World Bank (WB), on up-scaling climate smart agricultural practices in seven of the 11 counties; and the WB-supported National Agricultural and Rural Inclusive Growth Project (NARIGP) on strengthening the ability of community-level institutions to identify and implement investments that improve their agricultural productivity, food security and nutritional status, and linkages to selected value

chains in four of the 11 counties. Partnerships with the FNLTWG were further strengthened through collaboration on the finalization of the National NSAFS training package. Following the end of the TA project, the working group, whose members include WFP, the German Agency for International Cooperation (GiZ) and such NGOs as World Vision, will continue to support the government in its wide dissemination and uptake.

C. ACHIEVEMENT OF RESULTS

The TA project had three outputs under which various activities contributing towards the achievement of the output and outcome indicators were implemented. These are described below.

Output 1: KSIVAP's PCU and County Coordination Unit members' knowledge and skills to oversee and coordinate the implementation of KSIVAP enhanced

Activity 1.1. Conduct a joint stakeholder capacity assessment to identify the capacity gaps at national and county level to successfully implement KSIVAP activities

This activity was delivered. An initial robust CNA identified and confirmed gaps in skills and knowhow in project management, agribusiness and market development, and nutrition-sensitive agricultural interventions at both national and county level. This helped to identify key areas for the CD plan for the PCU and CCU.

Activity 1.2. Provide training, guidance and support in developing managerial and organizational capacity at national and county level to strengthen their operations and mandates in order to implement KSIVAP activities successfully

This activity was delivered. Two complementary training sessions, on Principles and Practices of Project and Contract Management, and Fundamentals of M&E respectively, were conducted for the PCU and CCU, represented by the respective KSIVAP desk officers. Key concepts covered during the first session included: introduction to project management, functional areas of project management, time management, cost management, quality management, human resource management, project implementation, project reporting, networking and partnership-building in project management, and communication strategies. The second session focused on M&E fundamentals, the hierarchy of objectives, logical framework development and theory of change. These resonated with most participants, as they responded to the CNA competency gaps identified by the PCU and CCU in overall project management and implementation issues. County desk officers that participated in the two managerial training sessions can now identify ways in which they have improved their

managerial and organizational skills, with special mention of M&E knowledge and skills, including the adoption and use of KoboCollect to report activities and beneficiaries reached (also linked with Output 3).

Activity 1.3. Provide organizational advice, guidance and support to KSIVAP PCU and CCUs to coordinate and implement project activities

This activity was delivered. The PCU and county desk officers representing the CCUs were supported in workshops and seminars to undertake their roles in coordinating and implementing project activities. The TA project provided guidance and support during a sensitization workshop for county executives in charge of agriculture, livestock and fisheries in the 11 project counties in November 2016, when county decision-makers were informed of the importance of KSIVAP/TA, in relation to KSIVAP, and the strengthened institutional and technical capacity planned. Preliminary site visits were made to the counties in February 2017 to reinforce this to county stakeholders. In total, the TA project provided 14 training events and workshops on various themes. In addition, various consultative meetings were held with the PCU and other stakeholders to appraise overall project progress, challenges and milestones, including: the consultation mission of the GAFSP coordination unit (22 October 2018); AfDB headquarters dialogue/supervision missions (27-28 February 2019 and 22-26 November 2021); and the joint midterm review (MTR), held in July 2019, where the TA project provided managerial advice.

The project also participated in joint annual work planning and budget workshops in 2017, 2018, 2019 and 2020 to review the work plan and plan for project implementation, providing guidance and support on priority activities.

Other activities under Output 1

Under this output, a noteworthy support activity concerned the integration of the RuralInvest tool, a free FAO multilingual methodology and toolkit designed to help with the preparation of sustainable agricultural and rural investment projects and business plans.

Although CPITs were expected to vet proposals for income-generating activities in order to recommend those most viable to the PCU for financial support (i.e. equipment) to diversified income and livelihood enhancement, capacity weaknesses were observed during the technical backstopping mission in January 2021. Remedial action was recommended and implemented through the RuralInvest training package, which provides guidance in the participatory identification of investment priorities and the development of full proposals, while assisting the supporting organization to monitor and evaluate such proposals and the

investments that may arise. This strengthened the capacity of project staff and related technical county officers in the preparation and analysis of proposed small investments using RuralInvest software.

Output 2: Capacity of county government technical staff and local private extension service providers to facilitate increased agricultural productivity, incomes, and food security enhanced

Activity 2.1. Conduct a capacity assessment to identify the technical capacity gaps at county level to successfully implement KSIVAP CD activities

This activity was delivered. As indicated in Activity 1.1, a thorough CNA at the outset of the project identified and confirmed gaps in skills and knowhow in agribusiness and market development and nutrition-sensitive agricultural interventions at county and PO levels. This helped to identify key areas for the CD plan for the CPITs and was used to compare with CD at the end of the project, particularly for county staff, who remained relatively constant throughout implementation.

Activity 2.2. Support regeneration of training curricula and materials for developing the skills and capacities at county level based on the outcome of the capacity assessment

This activity was delivered. The project completed two core products: the development of an agrinutrition reference manual, a user-friendly, practical resource tool to be used by front-line extension providers and community facilitators on a range of agrinutrition themes (production, hygiene, processing, preservation, utilization, etc.); and the drafting of the NSAFS training package. The project facilitated the development of the NASFS through collaboration with the nutrition technical network group partnership. This working group is committed to continuing support to its final packaging, dissemination and uptake. Members include WFP, GiZ and NGOs, such as World Vision.

Activity 2.3. Technical staff provided with competencies required to promote increased agricultural productivity, improved household nutrition, agribusiness and market development

This activity was delivered. The technical capacities of county project implementing staff were enhanced through the delivery of most of the programmed training and technical workshops envisaged in the Project Document, in line with the CNA findings. The training covered three main themes: agribusiness and market linkages; food security and agrinutrition, including post-harvest technologies/practices; and GAP and CA approaches.

With regard to agribusiness/enterprise and value chain development and marketing, two training workshops were organized on agri-entrepreneurship and value chain development, incorporating such topics as agro-entrepreneurship development, value chain analysis and upgrading, value chain governance, gender in value chains, and value chain development for micro and small agro-enterprises. The training involved 90 participants (30 female and 60 male). This reinforced a broader, deeper perspective to develop improved strategies and innovative initiatives of inclusive business models that facilitate the integration of smallholder farmers and actors into markets and value chains.

A TOT workshop on agribusiness and market development was carried out for a total of 28 (10 female and 18 male) county and subcounty agribusiness development officers engaged in the development and delivery of agribusiness management skills and knowledge to frontline extension workers and producer organization leaders. The topics covered included GAP, food safety and standards, agricultural value addition, collective marketing and linkage to markets, and the BMC concept.

The BMC training module gave trainees a brainstorming tool to visualize and structure a viable business plan designed to reduce risk, improve production, streamline efficiencies, and access untapped markets or consider changes in existing markets. Participants greatly appreciated the information and practical application of the BMC concept and expressed interest in applying this and in cascading the training to front-line extension and community facilitators. One county trainee has used the tool to train participants, both frontline extension staff and PO leaders affiliated to a WB-funded NARIGP. Another trainee is currently using the BMC for cross-fertilization with other business planning approaches, such as enterprise planning and development.

“Linking farmers to market” was a module used during training for county agribusiness development officers and for subcounty frontline extension service providers and CBFs. The module emphasized the development of long-term business relationships and took an innovative perspective as it embedded market-oriented collective action (consolidation for market power and economies of scale) contract farming (contract negotiations) and producer-buyer linkages. This was appreciated by KSIVAP implementing units at national and county level, frontline extension officers and CBFs. Some trainees have already put some of the principles and practices into use, supporting linkages of French bean producers to commercial buyers, such as Vert in Makueni and Frigoken in Nyeri. In addition, for investment appraisal and planning for small- and medium-scale enterprises, RuralInvest training was provided to strengthen project staff capacity to support the preparation and analysis of small investments

using RuralInvest software in order to contribute to the enhanced development of off-farm opportunities and to diversify income generation and employment initiatives.

With regard to food and nutrition security, nutrition-sensitive agriculture and interventions were highlighted as competency gaps and tackled through two technical workshops, on nutrition-sensitive agriculture and food systems programming, respectively, to mainstream nutrition across sectors. These included a review workshop for the NSAFS training package held with the FNLTWG and another training workshop (in clusters) for 111 participants (46 female and 65 male). Two training events on agrinutrition for a total of 66 participants (49 female and 17 male) were supported, including the establishment of new space and water-efficient kitchen garden technologies, and fruit and vegetable preservation through drying to supplement the household food basket. Safe food handling and preparation, and family diet/meal planning taking into consideration the nutritional needs of different age cohorts within a household for improved household nutrition, in order to encourage the desire for healthy diets, were also covered by the training.

On increasing agricultural productivity, the concept of GAP was clarified in various training events for the PCU, county extension officers and CBFs, with an emphasis on the guiding principles of GAP and the role GAP plays in environmental conservation, the social wellbeing of communities, food safety and improved productivity. The principles of CA, such as minimum tillage, crop rotation and ensuring soil cover, were also promoted, contributing to increasing productivity and efficiency, including labour-saving, and the climate-resilience of agrifood systems. During agribusiness and marketing development training for county agribusiness development officers, guidelines on GAP were covered as a module for a total of 28 participants (10 female and 18 male). In addition, during capacity building for subcounty frontline extension service providers and CBFs, training in GAP, CA and the horticultural production of the specific target crops aligned with KSIVAP investment project value chains (bulb onion, French bean, green maize, tomato, watermelon) was provided to 140 participants (41 female and 99 male). Dissemination and adoption are expected to increase further as frontline trainers share the new capacities acquired to improve producers' business planning and management skills. Increased agricultural productivity will enable consistency in supplying high-quality produce in a timely manner, increasing reliability and competitiveness.

As described above, the TA project, in agreement with KSIVAP, ceased to employ the TOT approach when it became apparent that this was not reaching frontline extension staff and smallholder producers, replacing it with the provision of direct training for CBFs, CEVs and CHVs using modules of the thematic areas. Trainees were expected to train others, also informally, as they practised what they had learned (peer-to-peer extension).

Instructional skills on adult training methodology were included in the TOT and direct training workshops to enhance the sharing of knowledge and skills to smallholder producers who are adult learners.

Activity 2.4. Support KSIVAP in organizing appropriate study tours/exposure visits

This activity was not delivered. The organization of study tours and exposure visits to consolidate training concepts that had been acquired was overtaken by events, with project delays, the non-synchronization of activities and COVID-19 mitigation measures contributing to the cancellation of the activity.

Output 3: Support to the KSIVAP M&E system provided

Activity 3.1. Support the PCU's M&E team in planning, monitoring and evaluating key project results in the project areas

This activity was delivered. The initial KSIVAP M&E framework was adequate, with quantifiable indicators to measure minimum requirements for the achievement of the expected outputs and activities, but there were challenges in its operationalization, as noted and highlighted during the MTR (July 2019), which led to specific recommendations to improve project M&E reporting by establishing a robust M&E system. Through a rigorous step-wise process, the PCU and CPITs, represented by county project desk officers, were guided in the development of a project M&E system for tracking and reporting project results, including the alignment of reporting with GAFSP core indicators. An M&E tool kit was developed jointly with the PCU and county desk officers, and training and coaching in the use of the tool kit for the CPITs were carried out, with special emphasis given to indicators for tracking successfully achieved CD outputs and outcomes. Overall, 108 participants (33 female and 75 male) from the PCU and county implementing units, including desk officers, were trained. Specifically, the TA provided support to:

- develop a KSIVAP M&E framework (monitoring plan, calendar) in line with the investment project results framework;
- develop data collection tools on KoboCollect;
- strengthen the capacity of technical officers and CBFs to use the M&E digitized data collection and reporting tools; and
- roll out the M&E data collection tools.

The development of the M&E framework and data collection tools and such corresponding activities as coaching on how to use the tools have led to enhanced knowledge of M&E and higher capacities for implementation. The PCU is now championing the use of the M&E system in another AfDB-supported project under its jurisdiction.

Activity 3.2. Support monitoring of KSIVAP's CD activities and provide technical backstopping at county level

This activity was delivered. The project completed two core products: the development of an agrinutrition reference manual, a user-friendly, practical resource tool to be used by frontline extension providers and community facilitators on a range of agrinutrition themes (production, hygiene, processing, preservation, utilization, etc.); and the drafting of the National NSAFS training package. The project facilitated the development of the NASFS through collaboration with the nutrition technical network group partnership. The working group is committed to continuing support to its final packaging, dissemination, and uptake. Members include WFP, GiZ, and NGOs such as World Vision.

Activity 3.3. Hold county stakeholders' implementation progress review meetings

This activity was delivered. A stakeholder review meeting comprising 43 participants (18 female and 25 male), of whom ten (3 female and 7 male) represented the PCU and 33 (15 female and 18 male) the target counties (three from each county), was held towards the end of the project. The stakeholders reflected on and discussed project results, achievements, issues and challenges, while making collective decisions on how to improve investment project performance in the remaining period of implementation and garnering the lessons learned. The TA project completed the targeted training workshops, providing a platform for knowledge and experience-sharing. The training themes covered were rated as highly relevant to the needs of the counties, leading to increased skills and knowledge in agrinutrition, agribusiness and marketing, GAP and M&E.

Activity 3.4. Prepare and submit progress reports

Project progress reporting was timely and was conducted as required, with the project developing 12 progress reports during the project cycle, presenting accomplished activities against the logframe, and plans for the remaining activities. The reports also presented challenges such as those related to the delay in implementing project activities and proposed remedial actions.

Beneficiaries

The project engaged government stakeholders at national and county level, and frontline producers from the 17 project sites, reaching a total of 658 (278 female and 380 male) comprising government staff (534 [231 female and 303 male]), PO leaders (51 [16 female and 35 male]), CHVs (33 [21 female and 12 male) and out-of-school youth (40 [10 female and 30 male]). See Table below.

Table 1: Beneficiaries

Participants	Planned number	Actual number		
	Total	Total	Female	Male
Output 1				
PCU staff (Ministry headquarters)	5	7	3	4
CCU staff (County headquarters)	55	36	13	23
Subtotal	60	43	16	27
Output 2				
Frontline extension staff	33	49	15	34
Government staff	72	262	137	125
CHVs		33	21	12
Out-of-school youth		40	10	30
PO leaders		51	16	35
RuralInvest participants		29	12	17
Subtotal	105	464	211	253
Output 3				
PCU, CPIT and key front-line staff	5	43	18	25
Coaching participants		108	33	75
Subtotal	5	151	51	100
Grand total	**170**	**658**	**278**	**380**

Source: elaborated by the Project Team

Inputs and services

Although no tangible inputs were delivered, the training services provided covered managerial, technical and business CD workshops. These emphasized project management for results, nutrition security, increased agricultural productivity, agribusiness development and marketing, respectively. Relevant training materials were provided in both soft and hard copies.

Contribution of results to the achievement of the expected outcome and impact

The wide range of capacity-building initiatives and technical guidance provided under the project has contributed positively to the achievement of both higher-level targets (reduced poverty and food insecurity, and strengthened national and country technical and organizational capacity) in terms of both managerial and technical capacity enhancement.

With regard to enhanced managerial capacity, the PCU and most counties' desk officers have demonstrated the capacity to use the M&E digitized data collection and reporting tools (see Photo 1 below) and are eager to continue. This has been an important contribution to improving project management and monitoring project progress.

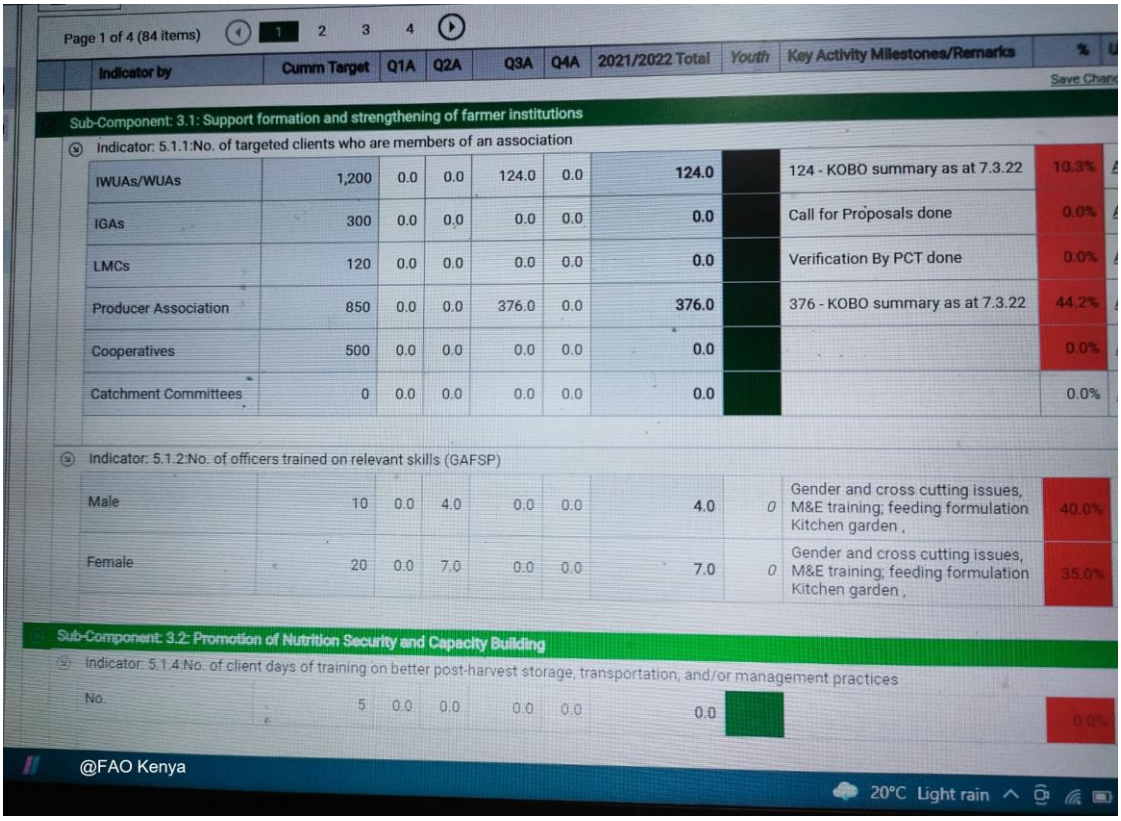

Photo 1: M&E tool screenshot from one of the Counties, Nyeri. (Credit: ©FAO Kenya).

With regard to enhanced technical capacity, most agribusiness and market development training workshops' participants - beneficiaries/stakeholders - have demonstrated the capacity to apply new skills, to provide further training in business and agro-entrepreneurial skills and to facilitate market linkages using business-oriented training content, relevant training materials and approaches acquired from the training to support smallholder commercialization trends within and outside KSIVAP. In Makueni, TOT-prepared trainers have cascaded the training and trained other trainers, including newly employed staff, interns and community extension workers. For example, a beneficiary in an agribusiness TOT on the BMC used the acquired knowledge and skills in a business planning module he led for another project in his jurisdiction (see Photo 2 on following page).

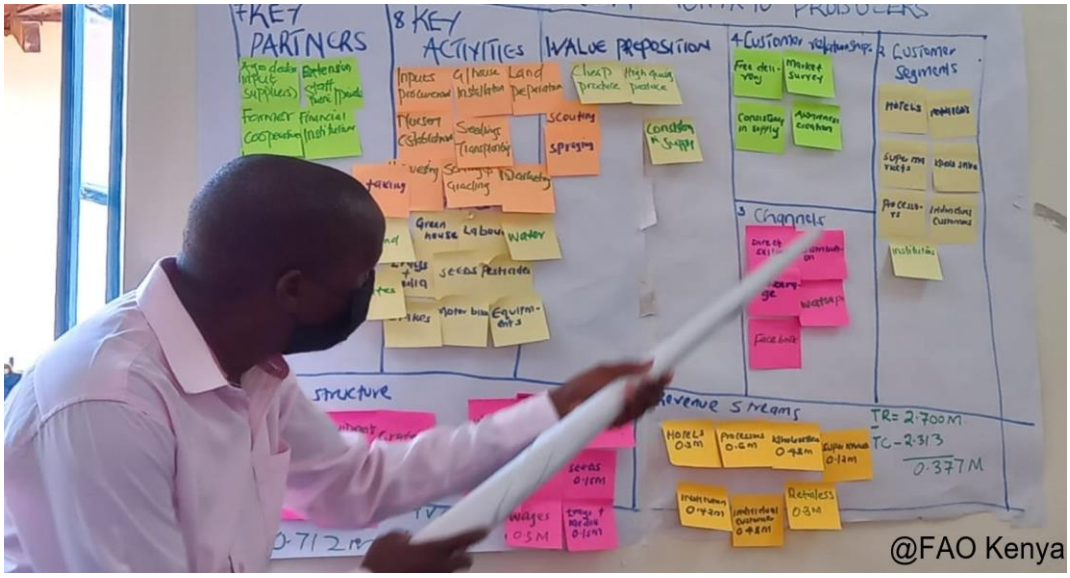

Photo 2: Trainee presents BMC during NARIGP training conducted by TA Agribusiness beneficiary/TOT from Makueni. (Credit: ©FAO Kenya).

RuralInvest training was used to strengthen project staff capacity to support the preparation and analysis of investments using RuralInvest software. The PCU members and county staff that participated in the training appreciated the RuralInvest toolkit and methodology as a rational guide and support to enable them to appraise income-generating proposals objectively. Of 29 RuralInvest trainees, 17 were declared competent and qualified to use the software by formulating and developing real projects individually and independently. Some of these county trainees are already using RuralInvest methodology to appraise business plans and proposals under ongoing complementary programmes in their jurisdiction (KCSAP, ASDSP, ABDP). The use of the RuralInvest methodology and toolkit is expected to contribute to enhancing the development of off-farm opportunities and diversifying income generation and employment initiatives in the target counties. Moreover, some trainees plan to use the RuralInvest Methodology and toolkit as a personal development skill for the formulation of their own business plans, agro-based or off-farm, beyond the project period or even as a consultancy for a fee.

The training provided in designing and implementing nutrition-sensitive agriculture and food systems programmes strengthened the awareness, recognition and capacity of county directors of agriculture, livestock, fisheries and health education, and of county technical staff collaborating with the TA project with regard to the importance of incorporating nutrition-sensitive agriculture into CIDPs. The TA project has thus created momentum in the target counties. Some counties, such as Nyeri, have already deployed county agrinutrition officers to coordinate agrinutrition interventions for all agricultural projects in the county.

The beneficiaries and stakeholders who received nutrition training to improve nutrition security have demonstrated to a considerable extent their improved capacity with regard to applying and disseminating technologies such as kitchen gardening within and outside KSIVAP, as well as enhanced knowledge and skills for post-harvest and storage, and in the preparation of nutritious and safe meals. (See Photo 3).

Photo 3: Kitchen gardening technologies in Makueni. (Credit: ©FAO Kenya).

Those producers who are also CBFs have benefited directly from training and have enhanced their technical skills in improving agricultural productivity, for example through GAP/CA on their farms, and their ability to supply high-quality produce for the market, as seen below in Photo 4.

Photo 4: Garlic crop grown under CA in a CBFs farm in Narumoru, Nyeri. (Credit: ©FAO Kenya).

As demonstrated above, by strengthening the technical capacities of the project implementation teams at national and county levels, the TA project contributed to KSIVAP effectiveness, efficiency and the quality of results in both management and technical areas, notably project implementation, nutrition, agribusiness and market development, and production. The project thus contributed to the higher-level SDG impacts of poverty reduction and improving food security and nutrition in the 11 counties. The most notable contributions include:

Table 2: SDGs and TA contribution

SDGs	TA contribution
SDG 1: No poverty.	Improved agribusiness planning and rural investment appraisal and proposal development/planning and new improved climate-sensitive agricultural technologies and value addition to increase production and strengthen agricultural market access and linkages/commercialization.
SDG 2: Zero hunger.	Through such targets as ending hunger through increasing productivity and incomes, including year-round kitchen gardens; improving access to nutritious food, including innovative indigenous products; and promoting sustainable food production systems and resilient agricultural practices through the promotion of GAP and CA.
SDG 5: Gender equality and empowerment.	Women's participation promoted in all training activities, and support provided to women selected as CBFs. Kitchen gardens, which improve household nutrition and provide an income (from sales, value addition) are most often operated by women, typically under their responsibility.
SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	Fostered economic activities through the entrepreneurial and value chain skills development, including in food preparation/value addition - for commercialization, which contributes to creation of decent work and inclusive and sustainable economic growth.
SDG 12: Ensure sustainable consumption and production patterns.	Contributed to information and awareness on climate-sensitive sustainable practices and technologies, spanning agricultural production, food preparation, preservation, storage, decreasing post-harvest losses and waste, etc. and contributing to safeguarding the environment and natural resources.

Source: elaborated by the Project Team

D. IMPLEMENTATION OF WORK PLAN AND BUDGET

Work plan and budget

Project activities were well planned but risks initially identified in the Project Document posed challenges for their timely implementation. These included high staff turnover in the PCU, which led to deviations in planning and the non-synchronization of schedules between the two projects. Bureaucratic delays in the flow of government funds to KSIVAP led to the delayed implementation of training activities as the investment project could not facilitate its implementing teams to participate in planned training. The investment project was supposed to procure the training venue and provide trainees with travel and subsistence allowance, while the TA would facilitate the training experts: these activities were challenged by fund flow delays. In consultancy with KSIVAP, the TA project proposed a restructuring in June 2021 with agreed priority training activities. A budget revision was also recommended to cater for trainee travel and subsistence allowances, as well as an initial no-cost-extension to 31 March 2022. Subsequently, a further no-cost extension request was approved and the project ended on 30 June 2022. Most of the initially planned TA activities were accomplished during the last 18 months of the project, all within the originally planned budget.

Technical support services were provided through training, workshops, virtual meetings, technical backstopping and field visits. The targeted number of missions was 33; of these, only 13 were achieved as a result of the non-synchronization of project activities, differences in understanding the project design and the entry point of the TA (which was obliged to wait until KSIVAP infrastructure was in place) and COVID-19 restrictions. It also became apparent in January 2021 that the TOT cascading approach was not effective and that technical backstopping was therefore irrelevant. A solution of partnering with CBFs was then put in place.

The actual number of beneficiaries/persons trained was 658 (278 female and 380 male) greatly surpassing the planned number of 170 for several reasons. The challenge in the TOT cascading approach led to the direct training of frontline extension staff and CBFs/CEVs, using a farmer-to-farmer approach, thus increasing the total number of persons trained. The M&E system development training was initially meant for the PCU M&E team but subsequently involved the fuller operational support, training and coaching of county implementation teams, including frontline extension staff and CBFs/CEVs, which also increased the numbers of persons trained. Finally, training was provided that had not been envisaged but was recognized as essential, such as that conducted in RuralInvest, GAP and Food Standards (initially slated under the KSIVAP partners, Kenya Agricultural and

Livestock Research Organization [KALRO] and Horticultural Crops Development [HCD], respectively).

Resource partner contribution

The approved budget of USD 1 200 000 supported the achievement of the project's outputs and was disbursed in a timely manner. The financial resources allocated were sufficient for all activities.

As a result of the high turnover in the role of National Project Coordinator (NPC), coordination between the TA and investment projects experienced challenges in convening consultative meetings and synchronizing activities. Despite this, joint annual work planning and budget meetings were carried out periodically with the coordination of the PCU until 2020 when COVID-19 mitigation measures restricting movement made physical meetings impossible. Subsequently, improved coordination through consultation, communication and dialogue led to enhanced collaboration between the TA and investment project.

The TA project had no other direct official arrangements in terms of coordination. However, the investment project had HCD and KALRO as implementing partners on technical support to irrigation schemes and the TA was expected to work with them to deliver on the institutional strengthening and CD component, specifically on capacity-building in marketing and GAP, respectively. Both HCD and KALRO participated in the joint annual work planning and budget meetings but dropped off after the proposed Memorandum of Understanding between the two public organizations and the lack of endorsement of KSIVAP by the Treasury. The TA project took up the two thematic areas and trained the technical staff and CBFs, with the concurrence of the PCU.

Better strategic coordination could have impacted the project outcomes more favourably, with the role of partners more clearly defined and reliable timely funding elaborated in the designs of both projects. For instance, it was not until the project MTR (July 2019) that M&E gaps, roles and responsibilities were clarified and adjusted. As implementing partner and supervising entity of the TA component, it was agreed that the TA budget would be adjusted as needed to support the development of the M&E framework, including the management information system, and its operationalization, which included training and guidance support.

Risk management

A project design lapse affected the investment project start-off, leading to the delayed implementation of the TA project and missed activities, as highlighted by the MTR in July 2019. In addition, delays in KSIVAP implementation were caused by the decentralized government structure and associated unforeseen challenges of devolution transition in governance and institutional changes. Further delays were caused by the priority given to infrastructure development by the investment project, effecting the TA start-off. An agreed matrix of actions and recommendations with timelines was subsequently developed during the MTR for accelerated implementation. Minimal activities however took place owing to the non-synchronization of activities, and weak collaboration and coordination between the TA and the investment project, which led to tensions after a joint technical backstopping mission held in January 2021. A consultative meeting was held in May 2021 to prioritize activities that needed TA attention. The TA project proposal comprised a budget revision among budget lines and a no-cost extension that allowed accelerated implementation of project activities. This improved the situation.

Bureaucratic government procedures on audit, budget allocation and funds release and replenishment, identified as low risk, affected the timely implementation of the KSIVAP work plan, leading to inadequate support to the counties and the reduced impact of the support provided by the TA project to the capacity-building and nutrition sub-components of KSIVAP. This became apparent during a technical backstopping mission in January 2021 and subsequent consultative meetings. The TA restructuring and adjustments, as well as improved collaboration, allowed for more training support to meet the needs of KSIVAP staff.

A medium risk identified was that the implementing staff of KSIVAP who had received CD support from the TA project would not be able to implement all scheduled KSIVAP activities because of transfers. High staff turnover at the PCU, especially of the NPC, led to the non-synchronization of activities, and contributed to a lack of understanding of the role and scope of the TA. Staff changes obliged TA support to be adjusted to meet the needs of the KSIVAP implementing staff, without deviating from the original work plan but with a budget revision among budget lines to cater for increased training.

Based on the FAO social and environmental screening and categorization process, the TA project was rated low risk and no further environmental and social analysis was needed.

Visibility

The TA task leader participated in initial public inception visits to the counties and an initial sensitization workshop informing main stakeholders of the role of the TA. Training workshops, specifically in nutrition training, were officially opened by senior government officers. The task leader took advantage of other meetings held with the PCU and other stakeholders, including AfDB supervision missions, GAFSP coordinating unit missions and the joint MTR, to provide updates on the project. Results were also disseminated through the technical backstopping mission held in 2021 to all 11 counties, during which county executive committee members, including agriculture chief officers and county directors of agriculture, were consulted, and the technical backstopping mission to Makueni and Nyeri in May 2022 at which the respective local authorities were present. These provided an opportunity not only to discuss successes with county leadership and stakeholders, but also to emphasize the importance of successes and the need to carry forward planned project activities.

A stakeholder review meeting held in June 2022 discussed project results, achievements, issues and challenges of implementation, while making collective decisions on how to improve KSIVAP project performance in the remaining period of implementation.

The kitchen garden training support provided by TA-KSIVAP is a relatively uniform "model" tool that can be easily replicated for uptake by counties and below. A central demonstration plot developed by KSIVAP and others, including the TA project, at MOALF&C Headquarters (Kilimo House), Nairobi, provides training to ministry staff and visitors.

Video and communication materials were developed and disseminated (with the participation of the TA project) to promote the intervention widely. One example of these materials is the 1 Million Home/Kitchen Gardens Initiative – Kenya – Bing video (https://www.youtube.com/watch).

E. SUSTAINABILITY

a. Capacity development

The project made a significant investment to strengthen the institutional, organizational and human capacity of government staff at national and county levels to implement the KSIVAP. Technical officers at national and county level, as well as CBFs/CEVs, have acquired improved knowledge and capacity for enhanced technical performance in business, nutrition practices, production, contributing to reducing hunger, improving nutrition, reducing poverty and increasing incomes in the project sites and beyond. Frontline trainers have the requisite capacity to provide training related to improved institutional and technical capacity to upscale and replicate inclusive business and market linkage models, and provide complementary support to increase value addition and competitiveness. The technical workshop to incorporate and mainstream nutrition-sensitive agriculture in programming built momentum for the counties to integrate nutrition in their CIDPs and provide complementary support to NSAFS while fulfilling their mandates; some counties have already demonstrated commitment. The RuralInvest training has stimulated high interest, including among partners, suggesting promising scale-up potential for the method and tool.

All county staff members are subject matter specialists or extension agents involved in such government agricultural/livestock projects as the Drought Resilience and Sustainable Livelihoods Project, NARIGP, KCSAP, ASDSP, ABDP and the Upper Tana Catchment Natural Resources Management Project (IFAD) in their respective counties. This gives them leverage to use the knowledge and skills acquired through the project, resulting in further scale-up in, *inter alia*, nutrition, agribusiness and market development, GAP and participatory M&E.

Strengthening the capacity of county extension agents and CBFs/CEVs promotes the sustainability of knowledge and skills gained through the TA among farming communities. At the time this report was written, Makueni County had just recruited 230 CEVs, adding to the existing extension service. As eight of these (all youths) attended CBF/CEV training, this should further disseminate the transferred TA knowledge.

b. Gender equality

Although the TA project did not have gender equality as one of its main objectives, it addressed the issue in a systematic manner. Female trainers and trainees were mobilized alongside males and received the same training and participation in technical and business management skills. By default, CD activities enhanced the participating women's technical,

business and entrepreneurial skills. The project promoted women-friendly and labour-saving agricultural technologies and practices such as the use of energy-saving fireless cookers, minimum tillage in CA and kitchen gardening, as well as access to markets and opportunities for value addition and cottage industry development, and the promotion of inclusive value chains and business models. The use of CBFs/CEVs/CHVs enhances proximity, allowing more females to become involved in farmer-farmer extension without having to travel far from home and allowing them to learn as they train and receive coaching and mentoring by the extension staff.

c. Environmental sustainability

As the project is a capacity-building project, there were no environmental risks that might have threatened the sustainability of outcomes, and this parameter is therefore not applicable as such. The project had minimal or no potential negative environmental or social impacts; on the contrary, it contributed to sustainable environmental practices through the capacity developed in CA, GAP and IPM. The project is thus expected to have contributed positively to environmental sustainability in the targeted countries through building the capacities of frontline extension officers and smallholder producers. This will support them to mitigate any negative environmental effects that may be associated with the infrastructure development of KSIVAP and to protect the environment.

d. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

Human rights were promoted through awareness-raising, education and the building of individual capacities through training in the agricultural and nutrition and healthy diets sector and wellbeing, all leading to freedom from hunger and human dignity. The project strengthened capacity with regard to the right to food in multiple ways by providing knowledge on adequate (quality and quantity) food and production, and by promoting improved technologies and access to the preparation of safe and nutritious foods/healthy diets. Agro-entrepreneurial skills development contributes positively to decent work and income generation for food accessibility for women and youth, and the project's CD efforts in the thematic areas of agri-entrepreneurial skills and inclusive value chains development, agribusiness management and market development enhanced these skills. Value addition and cottage industry development and the establishment of kitchen gardens have already generated decent jobs and income diversification, with RuralInvest expected to generate feasible investment projects offering decent employment opportunities either as service providers or practitioners. For example, some trainees are already constructing or setting up

kitchen gardens for a fee and looking into using RuralInvest to formulate business plans for projects and entrepreneurs for a fee. The TA project provided training in CA, especially in minimum tillage and cover cropping, which has been shown to reduce drudgery and excessive hours of work, allowing time to engage in other productive activities, while GAP and IPM support measures for ecological and food production sustainability and improved services for marketing through promoting tools and techniques, thus improving labour conditions in rural areas.

e. Technological sustainability

Most training targeted 'learning by doing' and most technological knowhow acquired is sustainable, with much of it leveraging local products. There is high potential for sustainability and institutionalization of the competencies and technologies supported through the CD interventions of the project, mainly because the training reached government officers at both national and county levels, and also out-of-school youth, frontline PO leaders and lead farmers living in the farming communities, and farmers themselves. A priority emphasized in all training was that the trainees involved in the various project CD activities would share the technological knowledge, skills and information acquired with others.

f. Economic sustainability

County extension staff members are permanent and pensionable employees, paid by the county, and will incorporate the knowledge and skills gained in their regular extension services beyond the project. The CBFs/CEVs are community members living among the farming communities and will by default pass on the knowledge and skills gained even in the absence of external funding. The CD attained, particularly in terms of strengthening business and agro-entrepreneurial skills, including value-addition technologies, will contribute to the growth of value addition and cottage industries, micro and small enterprises, income diversification and off-farm employment, business and market opportunities along the agricultural value chain, all of which will translate into inclusive rural transformation and economic development. RuralInvest will be used to design agricultural-related investment proposals for activities to increase incomes.

Technical capacity to support the business and technical training of producers at project sites will improve producers' business planning, management and technical skills, enabling them to supply sufficient high-quality produce in a timely manner and leading to improved incomes.

F. LESSONS LEARNED

LESSONS LEARNED – elements of success

The initial CNA, also serving as a baseline for institutional strengthening and CD projects, proved to be both useful and important. Most CD interventions and activities with the PCU, CCUs and CPITs in specific managerial, technical and business skills were highly relevant to the needs of the target counties.

The project provided a platform for knowledge and experience-sharing. With locally held workshops, attendance and participation were frequently 100 percent.

Conducting workshops and training jointly with the PCU, CCU and CPITs was an efficient way of facilitating the cross-fertilization of ideas. At the same time, adopting the farmer-to-farmer approach, thus enhancing the capacity of CBFs/CEVs, proved to be a good way of reaching a larger number of smallholder producers in a shorter time with first-hand knowledge and skills.

Synergies with ongoing projects increase the sustainability of project interventions. A particularly valuable tool that stimulated much interest was RuralInvest for business planning and investment appraisal: https://www.fao.org/in-action/ruralinvest/toolkit/en/.

Kitchen-garden technologies for water-use efficiency, household food supplementation and improved nutrition, as well as a potential source for income generation, proved to be of great interest and success among individuals and producer groups.

LESSONS LEARNED – impediments/constraints

The TA CD training experienced start-up delays as it had been designed to complement the investment project, which gave priority to infrastructure development, as described above. Delays persisted as a result of various bureaucratic procedures and the non-synchronization of activities. This destabilized the initial work plan and did not allow sufficient technical backstopping and timely remedial actions. An agreed accelerated action plan and the restructuring of the TA project with a budget revision and a no-cost extension gave the project the impetus needed to successfully accomplish most of its planned activities in line with the original work plan, also incorporating the innovative CBF approach.

Owing to unforeseen challenges related to devolution, CCU capacity was limited, with reduced collaboration across sectors and stakeholders, impeding shared learning and monitoring. Stakeholders' involvement in critical themes and all stages of project implementation is important.

G. FOLLOW-UP ACTIONS FOR GOVERNMENT ATTENTION

It is recommended that KSIVAP uphold the cascading of the training to the counties, especially that on improved nutrition education and awareness for the consumption of safe and healthy diets for all, the promotion of CA, GAP and IPM and the CD of POs on business and market linkages, and governance.

County governments should seek to identify innovative ways to support the agricultural extension service, which provides training, information and other extension support to farmers. To ensure broad and effective coverage, for example, the ongoing model in Makueni of CBF/CEV recruitment with remuneration and capacity-building, should be considered. Other good practices include the Farmer Field School approach, digital technologies and study tours. Training should also be provided at county level in KoboCollect, cascading and the operationalization of the M&E system.

Continuous communication should be ensured between KSIVAP and the targeted county governments to promote their commitment of financial and human resources to further capacity-building activities.

The integration of identified nutrition-sensitive measures into county plans should be promoted and the recommended actions implemented after project closure.

County governments should provide regular and continuous refresher training, above all in agrinutrition education and awareness, RuralInvest, agribusiness and marketing development, climate-resilient agriculture and other relevant thematic issues, with or without the support of KSIVAP. They should also make a commitment to incentivize CBFs and CEVs in order to ensure extension service support to smallholder producers, with or without the support of KSIVAP.

H. HUMAN INTEREST STORY

One of the agribusiness trainees, a sub-county agribusiness development officer, expressed great pleasure and enthusiasm in acquiring the RuralInvest methodology and software, and repeatedly said that this was the best training he had received in his career. He said that he would use it for his professional work to appraise investment proposals and also for his personal development to develop business plans. He had sensitized colleagues in his office on RuralInvest software, raising awareness and creating interest in learning the skill among his peers.

A female farmer group member used the income generated by vegetable sales from her kitchen garden to scale up and commercialize her poultry enterprise. She had started with few poultry but now reported to have 100 chickens, used for both household consumption and sales. She felt more “empowered” and “respected” particularly within the household: “Before I was living like a beggar. I am now selling; I bring home food myself. And I am now producing, I am contributing to the household income.”

Appendix 1

LOGFRAME MATRIX– ACHIEVEMENT OF INDICATORS

Results Chain	Indicators				If not achieved, explain why	If applicable/ follow-up action to be taken
	Indicators	Baseline	End target (*expected value at project completion*)	Achieved		
Impact[2]	Contribute to reduction of rural poverty and food insecurity in the eleven counties					
Project Outcome Human and organizational capacity at the national and county level to successfully implement KSIVAP strengthened.	Percentage of PCU and CCU members utilizing knowledge and skills acquired.	10%	80%	65%	High turnover of staff/trained staff leaving positions.	
	Percentage of technical staff utilizing knowledge and skills acquired.	20%	80%	80%	Bureaucratic delays in flow of funds resulted in constraints in cascading CD activities as envisaged.	
Output 1 KSIVAP's PCU and CCU members' knowledge and skills to successfully oversee and coordinate the implementation of KSIVAP enhanced.	Number of capacity gap assessments conducted at national and county levels.	0	1	1		
	Number of PCU and CCU members trained in managerial skills.	0	60 (five from the PCU and five from the 11 CCUs).	43	Changed priorities on training needs occasioned by staff changes.	
	Number of supervisory and technical backstopping missions to monitor compliance to KSIVAP organizational requirements.	0	33 (one per county per annum).	13	Owing to unforeseen project delays, non-synchronization of activities and COVID-19 pandemic.	

[2] The impact level should always reflect the higher programmatic outcome to which the project contributes. For example, at the country level, this is expressed as the CPF outcome to which the project contributes and can also reflect other elements of impact that are defined at a higher programmatic level (UNDAF/national goal/FAO Strategic Framework).

Results Chain	Indicators				If not achieved, explain why	If applicable/ follow-up action to be taken
	Indicators	**Baseline**	**End target (*expected value at project completion*)**	**Achieved**		
Output 2 Capacity of county government technical staff and local private extension service providers to facilitate increased agricultural productivity, incomes and food security enhanced.	Number of training curricula developed.	0	1	1		
	Number of agricultural staff (disaggregated by gender) trained in relevant technical, business and methodological skills.	0	33 (three per county).	340 (152 female and 188 male).		
	Number of exposure field visits/study tours supported.	0	Five study tours/exposure visits.	0	Owing to unforeseen delays, non-synchronization of activities and COVID-19, this was dropped.	
	Number of missions to support the training of TOTs and to assess transfer of acquired capacities in the field, validate training materials and approaches.	0	42 (through three clusters with two sessions in each cluster in year 1 and four sessions in years 2-4).	13	Owing to non-synchronization of project activities and COVID-19, this was not achieved.	
Output 3 Support to the KSIVAP M&E system provided.	M&E framework captures CD outputs and outcomes.	0	1	1		
	Monitoring tool kit developed.	0	1	1		
	Number of PCU M&E team members mentored on use of monitoring tools.	0	5	7		
	Number of stakeholder review meetings held.	0	11 (one per county).	1 (jointly for all counties).	Owing to non-synchronization of project activities and COVID-19, this was not achieved.	
	Number of reports prepared and disseminated.	0	12 bi-annual reports (Project Progress Report [PPRs]).	12 bi-annual reports (PPRs).		

Appendix 2

PROJECT STAFF

	Dates of Service	
Function	**Starting Date**	**Concluding Date**
Task Leader/Agribusiness Specialist	January 2017	March 2022
Crops Specialist	January 2017	March 2020
Nutrition Specialist	July 2017	December 2021
M&E Specialist	January 2018	March 2022
Water Specialist	January 2018	December 2018

Appendix 3

TRAINING AND STUDY TOURS

No. of participants	Training and Study Tours	Place	Date
1 (female)	GAFSP knowledge forum	Rome	30 May 2017- 1 June 2017
20 (6 female and 14 male)	Principles and practices of project management	Thika	30 October 2017- 3 November 2017
23 (8 female and 15 male)	Fundamentals of M&E	Thika	26-29 March 2018
38 (17 female and 21 male)	Agro-entrepreneurship and value chain development	Thika	25-29 March 2019
1 (female)	GAFSP knowledge forum	Rome	13-15 May 2019
33 (28 female and 5 male)	Nutrition training	Thika	24-28 June 2019
15 (3 female and 12 male)	M&E training for PCUs	Nakuru	19-23 August 2019
52 (13 female and 39 male)	Livestock agro-entrepreneurship and value chain development	Thika	27-31 January 2020
23 (4 female and 19 male)	M&E training for PCUs	Nakuru	15-19 February 2021
70 (26 female and 44 male)	M&E training for Project Implementing Units	Nakuru	9-14 August 2021
28 (10 female and 18 male)	Agribusiness and market development	Nakuru	4-8 October 2021
33 (21 female and 12 male)	Principles and practices of home gardening, and food preparation and preservation	Meru	15-19 November 2021
140 (41 female and 99 male)	CBF training on climate smart agriculture, agribusiness and participatory M&E	Meru	15-19 November 2021 22-26 November 2021
29 (12 female and 17 male)	RuralInvest training	Naivasha	24 January 2022- 4 February 2022
111 (46 female and 65 male)	Nutrition-sensitive agriculture and food systems programming	Nakuru, Machakos Naivasha	20-26 February 2022 6-12 March 2022 13-19 March 2022

Appendix 4

MAJOR ITEMS OF EQUIPMENT PROVIDED

Quantity	Item	Cost (USD)
1	Projector, Epson 2155W 5000, plus Elite Screen	3 619
1	Computer, laptop, EliteBook 830 G6	1 484