



Towards Commercial Transformation of Agriculture in Narok County

*The Role of the Agricultural Sector Development Support Programme (ASDSP II)
2017 - 2023*

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ACRONYMS AND ABBREVIATIONS

ASDSP	Agricultural Sector Development Support Programme
CASSCOM	County Agricultural Sector Steering Committee
CGA	Cereals Growers Association
CIDP	County Integrated Development Plan
CPS	County Programme Secretariate
CSA	Climate-Smart Agriculture
EU	European Union
GG	Green Growth
GSIAP	Gender and Social Inclusion Action Plans
KENNTEC	Kenya Tsetse and Trypanosomiasis Eradication Council
M&E	Monitoring and Evaluation
MoALF	Ministry of Agriculture, Livestock and Fisheries
MoU	Memorandum of Understanding
PVC	Priority Value Chain
PVCA	Priority Value Chain Actors
SIVCA	Strategic Integrated Value Chain Action Plans
SNV	Netherlands Development Organisation
VCA	Value Chain Actors
VCP	Value Chain Platform

FOREWORD

Agriculture is a major economic activity in Narok County, accounting for about 67% of the county's Gross Domestic Product (GDP). The majority of the county's 1.3 million people depend on agriculture for livelihood, with nearly half (46%) of the working population directly engaged in agricultural activities, mainly crops, livestock and fisheries production. Thus, increased productivity of the sector would go a long way to boost the county's economy and improve the livelihood of the people.

Accordingly, the county government is implementing various initiatives aimed at transforming the agricultural sector from subsistence to an innovative, commercially oriented and modern sector. Among the initiatives is the Agricultural Sector Development Programme (ASDSP) currently in its second phase. The programme was conceived within the tenets of the National Agriculture Sector Development Strategy (2010 -2020) and aligned with the National Agricultural Sector Transformation and Growth Strategy (2019-2029) which focuses on modernising agriculture towards 100% food and nutrition security, improved incomes, increased employment and livelihood improvement.

The first phase of the programme (ASDSP I, 2012-2017), mainly focused on facilitating demand-driven, stakeholder-led and coordinated efforts by the public, non-government and private sector actors, to strengthen critical value chains of local and national importance. The second phase (ASDP II, 2017-2023) seeks to build on the gains made by the ASDSP I, while addressing various constraints and challenges which inhibit effective commercialisation of agriculture. The challenges include: low productivity along the priority value chains, inadequate entrepreneurial skills among the value chain actors, poor access to markets and weak and inadequate structures and capacities for consultation, cooperation and coordination within the agriculture sector.

In Narok County, the prioritised value chains under ASDSP I and ASDSP II are: cow milk, beef and maize. The objective is to increase equitable production and productivity in all nodes of the prioritised value chains, facilitate market linkages and help to reduce post-production losses. Environmental resilience considerations are fully integrated in the prioritised value chains by emphasising application of green growth and climate-smart agriculture approaches.

This publication, "Towards Commercial Transformation of Agriculture in Narok County", highlights the role of the ASDSP II, with emphasis on initiatives to increase productivity of the priority value chains (PVC); strengthen entrepreneurial skills of the value chain actors; improve access to markets; and strengthen structures and capacities for consultation, collaboration, cooperation and coordination in the sector. The publication also highlights some of the preliminary results of the programme including achievements, constraints and challenges experienced, lessons learned, and steps taken to consolidate and deepen the implementation gains. The major achievements include: improved productivity and incomes especially in the production node of the PVC, increased employment across the PVC nodes, and increased participation of women and youths in the PVC development.

We therefore take great pleasure in sharing the initial programme results, while acknowledging the immense contribution by different stakeholders and the much work that still lays ahead, to the realisation of the shared vision of a commercially oriented agriculture sector that ensures sustainable food and nutrition security and improved livelihood for our people.

Hon. Joyce Keshe

CECM Agriculture, Livestock and Fisheries

ACKNOWLEDGEMENTS

The Agricultural Sector Development Support Program (ASDSP II) is a major development initiative implemented by the County Government of Narok with an overall goal of contributing to the transformation of crop, livestock and fishery production into commercially oriented enterprises that ensure sustainable food and nutrition security. The achievements so far realised by the programme, would not have been possible without the support and cooperation by different stakeholders from the public, non-government and private sectors.

The County Government of Narok wishes to express deepest gratitude to the Government of Sweden, the European Union and the Government of Kenya through the Ministry of Agriculture, Livestock and Fisheries (MoALF), for the generous financial support which has made it possible to implement the programme in the county. Special thanks also go to the Office of the Governor, His Excellency Hon. Patrick Ole Ntutu, through the Department of Agriculture, Livestock and Fisheries, for fully supporting implementation of the programme; and the County Programme Secretariate (CPS) for the steadfast stewardship under the able leadership of the Programme Coordinator, Mr. Vincent Kinyua, with support the following members of the secretariate: Fredrick Cheruiyot (M&E and Communication), Saitoti Saaya (Institutional Policy and Capacity Development), Peninah Mutuota (Business Development), Patrick Matetek (Value Chain Development), Daniel Sopia (Program Accountant), Eunice Kioni (Office Administration), Margaret Wairimu (Support Staff) and Wilson Keko (Accounts Clerk).

The contribution of the following members of the county facilitation team, cannot go unmentioned: Dorothy Lemein, Jamin Rutto and Charles Lang'at. The same applies to all the sub-county level extension staff (frontline workers) and services providers drawn from the public, non-government and private sectors, for their technical support throughout the implementation of the programme.

We also wish to thank all our partners, including financial service providers, input suppliers, and farmer cooperatives and self-groups, for the successful collaboration and partnerships at different levels of implementation of the programme.

Last but not least, we wish to acknowledge the technical support provided by Mr. Philip K'omolo of the Dairy Value Addition for Livelihood Improvement (D-VALI) Programme, in compiling the ASDSP II success story.

Thank you all, very much, for your invaluable contributions!

Livingstone Chepukel

Chief Officer

Department of Agriculture, Livestock and Fisheries

MESSAGE FROM THE PROGRAMME COORDINATOR

It is now five years since the County Government of Narok embarked on the second phase of the Agricultural Sector Development Support Programme, which began in earnest in July 2017. The purpose is to develop sustainable priority value chains for improved income, food and nutrition security. The implementation is aligned with the existing institutional and policy framework of the country, in which agricultural sector functions are fully devolved to county governments. Accordingly, the programme has adopted a horizontal approach to delivering county level strategic interventions, while maintaining a vertical connection with the national level coordination structures.

The interventions include: capacity development to the priority value chain actors (PVCAs) through implementation of Strategic Integrated Value Chain Action Plans (SIVCAP) alongside Gender and Social Inclusion Action Plans (GSIAP) for women and youth empowerment; capacity development to local service providers for effective engagement in the development of the priority value chains; collaboration and networking with various local development partners to leverage resources for different programme activities; and establishment of county level coordination structures. Through the interventions, the program envisages increased productivity in the priority value chains; enhanced entrepreneurial skills of the PVCAs; increased market access by the PVCAs; and enhanced structures and capacities for consultation, collaboration, cooperation and coordination in the agricultural sector.

In the process, with program has been able to reach a total of 14,450 value chain actors in the priority value chains (6,729 cow milk, 4,069 beef and 3,652 maize) and promoted 85 different innovations with high prospects for women and youth empowerment. Out of the 14,450 PVCAs reached, 13,451 (5,557 men, 3,866 women and 2,330 youths) have taken up the innovations to increase productivity, while 2,637 PVCAs (884 men, 1,104 women and 449 youths) have benefited from innovation grants amounting to a total of Ksh.25 million.

A rapid assessment conducted in 2022 to monitor the programme's results, indicated a considerable increase in productivity and income levels across the three priority value chains, especially in the production node. The beef value chain reported a 21.3% gross margin improvement in the production node, followed by 10.5% for the maize value chain and 1.2% for the cow milk value chain. Positive results have also been noted in employment creation across the priority value chains, further pointing to the potential for livelihood improvement from the commercialisation of the value chains.

In terms of gender inclusion and empowerment, recent data on the PVCAs reached by the programme (May 2023), indicate that male domination in the high-investment nodes has been significantly reduced. Across all the priority value chains, women have taken over as the leading actors in the processing node by 47.7%, followed by men at 37.4% and youth at 14.9%. In the input supply node, the youth are now the majority by 43.8% followed by men (32.2%) and women (24.0%). Although men still lead in the trade/marketing and transport nodes, their dominance is nearly evened out by the combined force of women and youths in both nodes.

As the programme approaches the closure date in November 2023, emphasis is now on initiatives to sustain the implementation gains. These include the establishment of structures and systems that will go along way to ensure continued access to effective innovations, technologies and essential services by the PVCAs; increased access to markets through market linkages and reliable information systems; and enhanced access to financial and insurance services by the PVCAs for sustainable development of the value chains.

As the County Programme Secretariat (CPS), we are forever grateful to every individual or institution which contributed in one way or another, to the successful implementation of the programme.

Vincent Ileri Kinyua

ASDSP II County Coordinator





THE GOAL

To contribute to the transformation of crop, livestock and fishery production into commercially oriented enterprises that ensure sustainable food and nutrition security.

1. BACKGROUND

1.1 County profile

Narok County is one of the 47 counties in the Republic of Kenya. It is situated in the southern part of the Great Rift Valley and borders the Republic of Tanzania to the South; Kisii, Migori, Nyamira and Bomet counties to the West; Nakuru County to the North and Kajiado County to the East. It is the eleventh largest county in Kenya, covering an area of 17,950.3 sq.km. It has eight administrative sub-counties, namely: Narok North, Narok East, Narok Central, Narok South, Narok West, Transmara East, Transmara West and Transmara South. The headquarter is in Narok Town.

Demographically, the county has a multi-ethnic population projected at 1,284,204 people in 2023 (634,154 male, 650,050 female), up from the 1,157,873 persons recorded in the 2019 National Population and Housing Census. With an annual growth rate of 3.13%, the total population is expected to reach 1,431,545 in 2027. The population is largely youthful and of high dependency. Those aged 0-34 years constitute 82%, which is much higher than the national average of 75%. The youth aged 15-29 years account for 26.6% of the total population, while those aged 15-64 years (working population) are slightly less than half of the total population (48.7%).

The county has a robust ecological system that the residents depend on for agriculture and other economic activities. The major agro-ecological zones include humid, sub-humid, semi-humid, semi-arid and arid. About two-thirds of the county is classified as semi-arid. Rainfall distribution pattern is bimodal with the long rains falling from March to May and short rains received between September and November. The average annual rainfall ranges from 500 to 1800mm per annum.

1.2 Major agricultural activities

Agriculture is the main economic activity in Narok, contributing 67.15% of the county's GDP. Majority of the residents depend directly or indirectly on agriculture for livelihood, with 46% of the county's working population directly engaged in agricultural activities. The three key agricultural subsectors are crops (food, industrial and horticulture), livestock and fisheries.

The main crops grown in the county are wheat, barley, maize, beans, sugarcane and horticultural crops. The horticultural crops include, tomatoes, potatoes, cabbages, French beans, onions and indigenous vegetables. Others are finger millets, pigeon peas, cowpeas and small-scale production of cassava and sweet potatoes. Maize, wheat, barley, tea, coffee, pyrethrum and sugarcane are grown as cash crops. Acreage under food crop is approximately 252,880 hectares, while cash crops occupy about 69,339 hectares.

Livestock keeping is another important agro-economic activity in the county. The species reared include cattle, sheep, goats, poultry, bees, rabbits, donkeys and other emerging livestock. The population of major livestock species is estimated at 1.4 million cattle, 1.2 million sheep and 0.8 million goats. Previously cattle comprised of indigenous zebu for meat, milk and other cultural purposes. However, over time the local communities are increasingly opting for the more productive breeds. Thus, Boran, Sahiwal's, exotic dairy cows and their crosses, are progressively becoming popular.



Livestock keeping is major agricultural activity in Narok County, with indigenous cattle breeds and their crosses being predominantly kept. However, recent developments have seen livestock keepers gradually adopting the more productive improved and exotic breeds.

1.3 Initiatives to promote agriculture

In line with the national development agenda, Narok County is implementing various initiatives aimed at transforming the agricultural sector from subsistence to an innovative, commercially oriented and modern sector. Among the initiatives is the Agricultural Sector Development Programme (ASDSP) currently in its second phase. The programme is aligned with the new Agricultural Sector Transformation and Growth Strategy (2019-2029) preceded by the Agriculture Sector Development Strategy (2010-2020). Both strategies capture aspirations of the Constitution of Kenya 2010, the Kenya Vision 2030 and the 2014 African Union Malabo Declaration on Accelerated Agricultural Growth. The ASDSP II is jointly financed by the Government of Kenya (national and county governments), the Government of Sweden and the European Union (EU).

The first phase of the programme (ASDSP I) implemented between 2012 and 2017, primarily focused on facilitating demand-driven, stakeholder-led and coordinated efforts by the public and non-public sector actors especially private sector agents, to strengthen critical value chains of local and national importance. Accordingly, the programme pursued commercial efficiency in the prioritized critical value chains and facilitated the establishment of an enabling policy, institutional and financial environment for value chains development.

The second phase (ASDSP II) seeks to build on the gains made by the first phase, while addressing various constraints and challenges which hinder effective commercialisation of agriculture. Among the challenges are: low productivity along the priority value chains, inadequate entrepreneurial skills along the value chains, poor access to markets by value chain actors and weak and inadequate structures and capacities for consultation, cooperation and coordination within the agricultural sector. The implementation of the programme was initially planned for the period 2017-2022. However, due to the adverse effects of the COVID-19 pandemic, the end-line was extended to November 2023.

2. DESCRIPTION OF ASDSP II

2.1 The goal

The overall goal of ASDSP II is to contribute to the transformation of crop, livestock and fishery production into commercially oriented enterprises that ensure sustainable food and nutrition security. The purpose is to develop sustainable priority value chains for improved income, food and nutrition security.

2.2 The approach

Although ASDSP II has maintained the overall focus and approach of the ASDSP I, its implementation is tailored to reflect the current institutional and policy setting in which agricultural sector functions are fully devolved to county governments. The programme has therefore adopted a more horizontal approach to service delivery at the county level, while maintaining a vertical connection with the national level coordination structures.

Key strategies deployed in the county level service delivery system include: capacity development to local service providers (public, non-governmental and private) and their engagement in the development of the priority value chains; capacity development to Priority Value Chain Actors (PVCAs) through implementation of Strategic Integrated Value Chain Action Plans (SIVCAP) alongside Gender and Social Inclusion Action Plans (GSIAP), collaboration and networking with various local development partners to leverage resources for different programme activities, and establishment of county level coordination structures.



A key development in the ASDSP II approach is provision of grants to women and youths for adoption of innovations with high prospects of increasing their participation in the development of the priority value chains.

Unlike the ASDSP I where several value chains were part of the implementation process, only three high potential priority value chains have been considered per county under the ASDSP II. In Narok County, the prioritised value chains are: cow milk, beef and maize. The objective is to increase equitable production and productivity in all nodes of the prioritised value chains, facilitate market linkages and help to reduce post-production losses. Environmental resilience considerations are fully integrated in the prioritized value chains by emphasising application of green growth and Climate-Smart Agriculture (CSA) approaches.

Another new inclusion is the ASDSP II is grants to women, youth and service providers. According the Narok County Gender and Social Inclusion Report (2021), women and youth, despite having an important role in agricultural production, are faced with numerous barriers which hinder their active engagement in agricultural value chains development. They include limited access to land, capital, skills and social empowerment. Moreover, both groups are mainly involved in the production node where there is less money and power. They are weaker in other nodes (input, process and transport) where high capital investment is required.

Thus, the ASDSP II grants to women and youth enable them to find entry points to broader participation in the development of the three prioritised value chains. Likewise grants to service providers are instrumental in scaling up innovations and practices geared towards strengthening business orientation of the three value chains. These two drivers have been comprehensively analyzed to reveal the trend, impact, possible intervention strategies and future projections.

Additionally, the ASDSP II has adopted in its implementation approach, a cost-sharing mechanism whereby counties provide counterpart funds to finance some of the programme activities and meet staff and office accommodation needs. The mechanism is envisaged to promote ownership of the programme at the county level and foster sustainability.

2.3 Key outcome areas

As part of the efforts to address some of the systemic challenges which hinder effective commercialisation of agriculture, the ASDSP II primarily focuses on the following four key outcomes areas:

- i. Increasing productivity in the priority value chains by addressing capacity needs of both value chain actors (VCAs) and service providers; promoting innovations with high prospects for women and the youth; scaling up climate-smart agriculture interventions, practices and technologies; creating employment especially for youth and women; and increasing percapita income in the priority value chains.
- ii. Strengthening entrepreneurial skills of the priority value chain actors through training on basics of business planning and management.
- iii. Improving access to markets by the priority value chain actors by providing market access linkages, market information and access to financial service providers.
- iv. Strengthening structures and capacities for consultation, collaboration, cooperation and coordination in the sector, through establishment of county-level coordination structures and development of supportive sector policies, legislations and guidelines.

2.4 Implementation process

Table 1: Major programme activities

Timeframe / Date	Key steps
2017	Establishment of the County Programme Secretariate (CPS) to coordinate implementation of the programme within the county.
2017	Official launching of the programme to raise stakeholders' awareness and set the stage for implementation.
2017	Stakeholder consultations and involvement in the selection of priority value chains using participatory methodologies.
2018	Baseline survey to understand the problems experienced by various value chain actors at different nodes of the priority value chains, and to establish baseline data for measuring progress and results of the ASDSP II.
2018	Mapping of service providers and value chain actors in the priority value chains.
2019 - 2022	Training of services providers (public, non-governmental and private) in the priority value chains. Development Strategic of Integrated Value Chain Action Plans (SIVCAP) and Gender and Social Inclusion Action Plans (GSIAP) as key capacity development tools for the Priority Value Chain Actors (PVCAs).
2019 -2023	Capacity development to value chain actors in the priority value chains through implementation of the SVICAP, with specific attention on increasing productivity, building entrepreneurship skills, increasing market access and improving coordination in the priority value chains.
2020	Development of the programme monitoring and evaluation plan.
2022	Rapid assessment to determine the programme's progress, document results and inform decision-making at different implementation levels.
2022-2023	Establishing structures and systems for sustaining the programme's implementation gains, including institutionalisation of the County Agricultural Sector Steering Committee (CASS-COM), among other county level coordination structures.

3. KEY PROGRAMME RESULTS

The key results highlight the program’s reach, major outputs in the key outcome areas, observed impact and initiatives to sustain the implementation gains. .

3.1 The reach

The implementation of ASDSP II has been scaled up to all the eight sub-country in Narok County, reaching a total of 14,450 value chain actors in the three priority value chains (6,729 cow milk, 4,069 beef and 3,652 maize). Figures 1 and 2 show the distribution of the value actors by the priority value chains and specific value chain nodes.

Figure 1: Engendered distribution of VCAs by the priority value chains

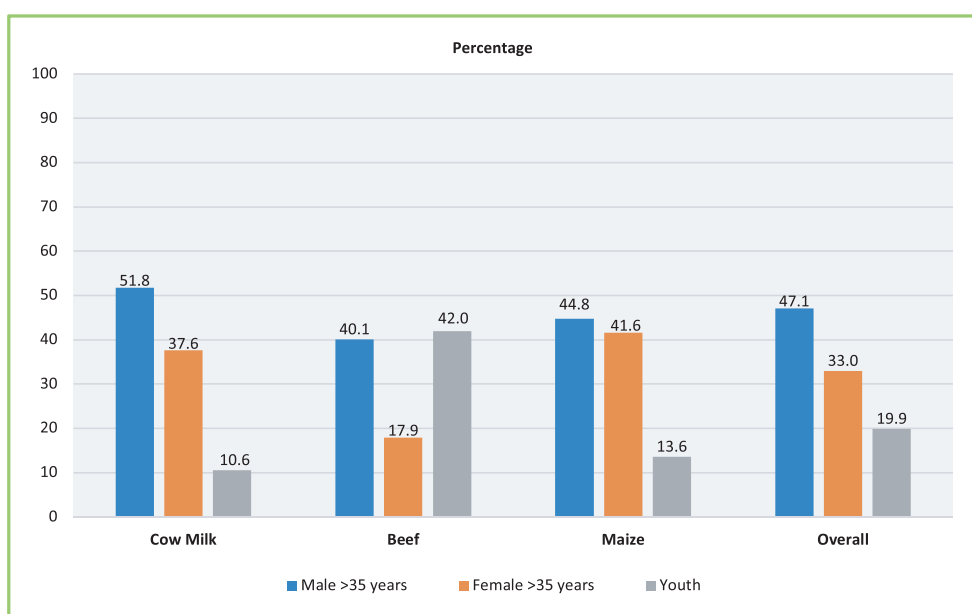
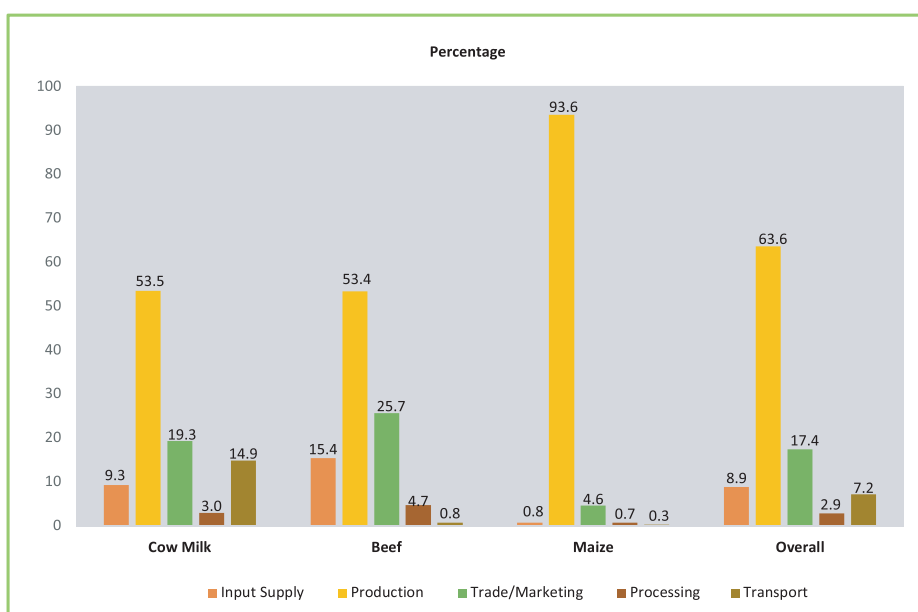


Figure 2: Distribution of VCAs by the priority value chain nodes



3.2 Increasing productivity of the priority value chains

As part of the efforts to increase productivity in the priority value chains, the ASDSP II focuses on building the capacity of service providers towards effective and efficient service delivery; supporting innovations with high prospects for women and youth empowerment; and promoting Climate-Smart Agriculture (CSA) and Green Growth (GG) interventions, practices and technologies.

Under this outcome area, the programme has made considerable efforts to train services providers and promote opportunities and innovations geared towards increased productivity in the priority value chains. In the cowmilk value chain, the programme has largely focused increasing milk output (quality and quantity) and building local capacity for value addition. The interventions include:

- Training of cowmilk VCAs in appropriate animal husbandry (including breed selection and improvement, quality pasture production, feed formulation and control of pests and diseases),
- Training on dairy value addition,
- Provision of innovations and technologies to support value addition at scale.

In the beef value chain, the programme's activities also focus on:

- Improving animal husbandry practices and general welfare,
- Increasing pasture/fodder production and conservation,
- scaling up innovations to support adaption of the more cost-effective but environment-friendly feedlot system of rearing cattle for beef,
- Promoting livestock trade standards.

In the maize value chain, there has been a greater focus on adoption of climate-smart and green growth technologies, with emphasis on:

- Conservation tillage, water harvesting and soil fertility management,
- Production cost management,
- Control of pest and diseases,
- Post-harvest management,
- Training of value chain actors in the processing node on maize value addition and product diversification.



A trained maize farmer in Transmara East Sub-county

Over 5,500 farmers have been trained in climate-smart agriculture including conservation tillage, water harvesting and soil fertility management; production cost management; control of pests and diseases; and post-harvest management. At the processing node, a women group with 22 members and a community-based organisation with 78 members (69 women, 23 youth and 8 men), have been supported by the programme to establish sifted maize flour milling units (one each).

Table 2: Initiatives to increase productivity in the priority value chains

Output Area	Key Outputs
<p>1.1 Enhancing capacity of service providers for effective service delivery.</p>	<ul style="list-style-type: none"> • 1 county facilitation team constituted. • 3 Strategic Integrated Value Chain Action Plans (SIVCAPs) developed and rolled out, one for each of the priority value chains. • 45 strategic opportunities identified for increasing productivity in the 3 prioritised value chains (Maize, Beef, and Cow milk). • 60 service providers trained on the opportunities, against a target of 30 (2 per node). • 60 service providers trained on packaging and dissemination of climate smart technologies across the three priority value chains. • 3 SIVCAPs developed to inform the generation of 4 extended capacity building concepts. • 3 Value Chain Platforms (VCPs) established for purposes of identifying various opportunities, challenges and potential interventions at each PVC node, towards wholistic development of the PVCs. • Facilitated 2 inter-county cross learning tours. • Facilitated staff to attend 3 trade fairs, exhibition and shows.
<p>1.2 Supporting innovations with high prospects for women and youth empowerment in the PVCs.</p>	<ul style="list-style-type: none"> • 3 county gender team members trained on integration of gender needs in the delivery of the ASDSP II. • Narok County -specific Gender and Social Inclusion Action Plan (GSIAP) developed and rolled out. • The 3 county SIVCAPs reviewed to integrate gender concerns/needs. • 85 different innovations with high prospects for women and youth empowerment in the three PVCs identified and implemented, against a target of 90 innovations. • A total of 13,451 VCAs (5,557 men, 3,866 women and 2,330 youths) have taken up the innovations to increase productivity in the PVCs; against a target of 14,450 (6,802 men, 4,775 women and 2,873 youth) • A total of 2,637 VCAs (884 M, 1,104 F, 263YM, 386YF) supported with innovation grants amounting to KSH 25 million • Facilitated learning exchange tours for 10 VCOs within and outside the county.
<p>1.3 Enhancing Climate-Smart Agriculture (CSA) and Green Growth (GG) interventions, practices and technologies</p>	<ul style="list-style-type: none"> • 3 PVCs resource maps developed • 3 PVCs suitability maps with explanatory notes developed • Geo-referencing for the three PVCs and VCOs established. • 85 CSA technologies identified and implemented, against a target of 90. • A total of 5,550 farmers trained on CSA including conservation tillage, water harvesting and soil fertility management; use of Bio -pesticides and Integrated Pest Management (IPM); and post-harvest management. • 10 conservation agriculture demonstration sites set up in collaboration with other stakeholders. • A total of 13,451 VCAs (5,557 men, 3,866 women and 2,330 youths) have taken up take different CSA technologies to help increase productivity in the priority value chains.



Boma Rhodes established by Ngiito Farmers' Cooperative Society

In the beef value chain, a total of 446 VCAs (154 men, 132 women and 160 youths,) from 14 different groups, have been reached with different innovations to help increase productivity of profitability of the value chain. All the 14 groups have been trained on pasture production, feed mixing, and provided with essential inputs (Boma Rhodes and Desmodium pasture seeds, fertilisers and herbicides) for pasture production. As a result of the support, the groups collectively have over 1,000 acres under quality pasture. Two of the groups have been supported by the programme to transition from pastoralism to the more productive, cost-effective but environment-friendly feedlot system of rearing cattle for beef, through provision of feedlot units, electric chaff cutters, generators, feed mixers, water and feed troughs, and water tanks. One more group has been provided with a 50L Artificial Insemination (AI) liquid nitrogen tank to promote access to AI services.



Kishon Women Group with the electric pasteurizer donated by the ASDSP II

In the cow milk value chain, the programme has reached 2,637 value chain actors (884 men, 1,104 women and 649 youths), with various innovations for increasing productivity. They include: dairy processing equipment (2 sets of 300L electric batch pasteuriser, 2 sets of 350L chest freezer, 78 anodised aluminium milk cans, 6 kitchen thermometers, 6 lactometers and 6 digital weighing scales); 2 sets of Artificial Insemination (AI) kits (50L and 3L capacity); improved pasture seeds and fertilisers for fodder production (244kgs of Boma Rhodes, 40kgs of Desmodium, 20kgs of Oats, 10kgs of Bracharia, and 149 bags each of the NPK and CAN fertiliser types); and basic equipment for feed preparation (2 chaff cutters, 2 barrel feed mixers and 1 horizontal feed mixer).

3.3 Strengthening entrepreneurship skills in the priority value chains

Commercial agricultural value chain enterprises are one of the most important sources of sustainable incomes and food security. To boost sustainable incomes and food security, the ASDSP II focuses on the growth of Micro-Small and Medium Enterprises (MSMEs) through value chain actors and service providers' entrepreneurial skills development.

Table 3: Initiatives to enhance entrepreneurship skills

Output Area	Key Outputs
2.1 Enhancing entrepreneurial skills of VCAs and service providers.	<ul style="list-style-type: none"> • A training manual developed to support basic entrepreneurship skills development. • 3 county level master trainers/ Trainers of Trainers (ToTs) trained. • A capacity needs assessment conducted for service providers and value chain actors (VCAs). • 41 frontline service providers trained and equipped with skills in entrepreneurship and business development. • 9,670 simple business plans developed by VCAs in the three PVCs. • 150 comprehensive business plans developed by VCAs in the three PVCs.

3.4 Improving market access in the priority value chains

The ASDSP II supports value chain actors with “soft” market access interventions by identifying and accelerating breakthrough solutions, ideas and conversations through partners who facilitate market linkages, market information and financial services. The market linkages are pursued through county -level sector coordination structures, value chain platforms (VCPs) and other entities such as cooperatives, associations and smaller value chain groups.

The programme also supports service providers to provide real time information on identified needs. This includes collecting primary or secondary data and packaging the information in a more accessible and comprehensible manner for the VCAs. Access to financial and insurance services is facilitated through collaboration with the providers of the services, as well as policy makers, towards expanding and strengthening the existing financial products and building capacity and supporting development of new services.



Enchurai Women Group at a maize aggregation and selling station

Table 4: Initiatives to increase market access

Output Area	Key Outputs
3.1 Improving market access linkages.	<ul style="list-style-type: none"> • 18 value chain organisations aggregated to co-operatives. • 2 marketing cooperatives established (Transmara Sahiwal Breeders Association and Kimintent Junction Farmers' Co-operative Society). • 4,069 beef VCAs linked with Kenya Meat Commission. • 2,172 beef producers linked with the Kenya Livestock Marketing Council. • 6,729 Cow milk value chain actors sensitised on market linkage instruments.
3.2 Increasing access to market information.	<ul style="list-style-type: none"> • 6 market information service providers mapped. • 18 value chain organisations linked to livestock marketing system. • 1,517 VCAs (482male, 828 female and 207 youth) are using the market information system.
3.3 Improving access to financial and insurance services.	<ul style="list-style-type: none"> • Successful collaboration and partnership with the Equity Foundation and Equity Bank through implementation of an MoU for provision of financial literacy services and linkage to relevant financial and insurance products. • 14 VCOs (89 Male and 85 female) trained on savings, budgeting and record keeping by Equity Foundation and Equity Bank. • 7,225 VCAs linked to the Youth Enterprise Development Fund.

3.5 Strengthening structures and capacities for consultation, collaboration, cooperation and coordination

In view of the generally weak and inadequate structures and capacities for consultation, cooperation and coordination in the agricultural sector, the ASDSP II prioritises strengthening of the relevant structures as a key strategy to enhancing commercialisation of the priority value chains. The programme does this by supporting initiatives for establishment of the proposed structures, enhancing capacities for establishment of the structures, strengthening stakeholders' participation in the structures, and facilitating development of relevant sector policies, strategies and regulations.

Table 5: Initiatives to strengthen structures and capacities for consultation, collaboration, cooperation and coordination

Output Area	Key Outputs
4.1 Supporting establishment of relevant structures.	<ul style="list-style-type: none"> • 7 Structures for consultation, collaboration and coordination developed: <ul style="list-style-type: none"> -County Agricultural Sector Steering Committee (CASSCOM) -Priority value chain platforms (3) -Umbrella civil society organisation -Private sector actors' association -Umbrella organisation for development partners
4.2 Enhancing capacities for the establishment of relevant structures	<ul style="list-style-type: none"> • 3 CASSCOM - operational instruments developed (the CASSCOM bill, strategic plan and operational guidelines). • 3 Value chain platforms, stakeholders and service providers sensitised on the operationalisation of ASDSP II. • 3 sets of guidelines developed to guide service providers in building the capacity of priority value chain actors.

Output Area	Key Outputs
4.3 Strengthening stakeholders' participation in the established relevant structures.	<ul style="list-style-type: none"> • MoUs for partnerships and collaboration developed with Cereal Growers Association (CGA), Hand in Hand East Africa, KENTTEC, Equity Foundation, SNV, Kenya Seed Company and Worldwide Sires Limited. • A customer satisfaction survey tool developed.
4.4 Facilitating preparation of sector policies, strategies and regulations.	<ul style="list-style-type: none"> • Supported development of the following instruments: <ul style="list-style-type: none"> - Draft Livestock Markets, Management and Development Bill, 2020. - Draft Animal Welfare Bill, 2021. - Irish Potato Regulations, 2019 - Crops Agriculture Bill, 2016. - CASSCOM Bill, Strategic Plan and Regulations. - County Food and Nutrition Security Policy.

3.6 Monitoring of progress and results of the programme

The County government through the ASDSP II County Program Secretariate (CPS) has taken steps to establish a monitoring and evaluation (M&E) system to help track progress in the implementation of the programme and demonstrate its results at different levels. The steps include:

- Development of a comprehensive M&E plan;
- Development of evidence-based annual workplans aligned with the 5-year County Integrated Development Plan (CIDP);
- Establishment of a regular reporting system (semi-annual and annual) for routine data generation;
- Periodic surveys / assessments focusing on specific indicator areas; and
- Periodic field visits to monitor progress and provide supportive supervision and mentorship to service providers and priority value chain actors.

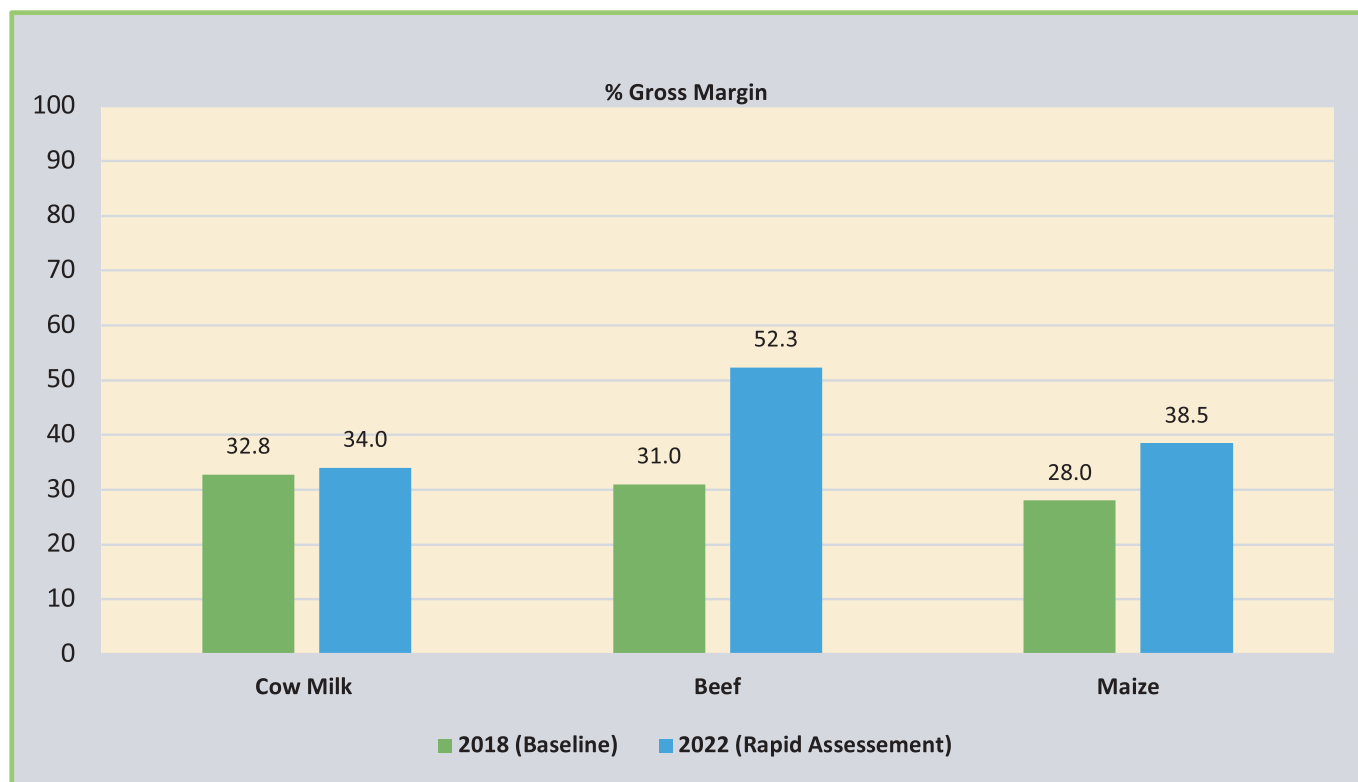
The data gathered from the M&E system fed into the programme's knowledge management and communication function. Key outputs of the function include development of the county communication plan and WhatsApp groups for each of the priority value chains, which are used as platforms for dissemination of information/knowledge to the value chain actors.

3.7 Initial outcomes of the ASDSP interventions

As a result of the ASDSP interventions, a considerable increase in productivity and income levels, has been observed across the priority value chains, especially in the production node. The 2018 Baseline Survey reported an average milk production rate of 8 litres per cow per day, cattle for beef production rate of 15-20 heads of cattle off-take per cycle and maize production rate of 10 bags per acre. The programme had set a target of 15 litres of milk per cow per day, 30-40 heads of cattle for beef per cycle and 15 bags of maize per acre, by 2022.

Initial results from a rapid assessment conducted in 2022 reported a 21.3% gross margin increase in the beef value chain production node, translating to 20 heads of cattle take-off in the period under review. A slight gross margin improvement of 1.2% was also noted in the cow milk value chain production node. This translates to 10.12 litres of milk per cow daily against the target of 15 litres per cow daily. In the maize value chain, the assessment recorded a gross margin increase of 10.5% in the production node, which translates to 12 bags of maize per acre. The results generally indicate that the programme is on track to meeting its targets, more so with the one-year extension of the implementation period following the COVID-19 pandemic-related disruptions.

Figure 3: Gross margin improvements at the production node



Positive results have also been noted in the area of employment creation across the three priority value chains, further pointing to a potential for livelihood improvement from the commercialisation of the value chains. The 2022 rapid assessment revealed that there was at least one (1) on-farm employee in every entity at production, trade, transport and processing nodes, across all the priority value chains. At the processing node, the processors employed an average of 4 on-farm employees. Producers and traders had an average of two (2) off-farm employees, one male and one female. In the processing and transport nodes, off-farm employees were 4 males and 1 female, on the average.

Regarding gender inclusion and empowerment, the ASDSP II has made considerable gains in the efforts to increase the participation of women and the youth in the priority value chain nodes, through prioritisation of innovations with high prospects for women and youth empowerment. During the 2018 baseline study, it was observed that women and youths were mostly involved in the production node where there is less money and power, but weaker in the input, processing and transport nodes where high capital investment is required.

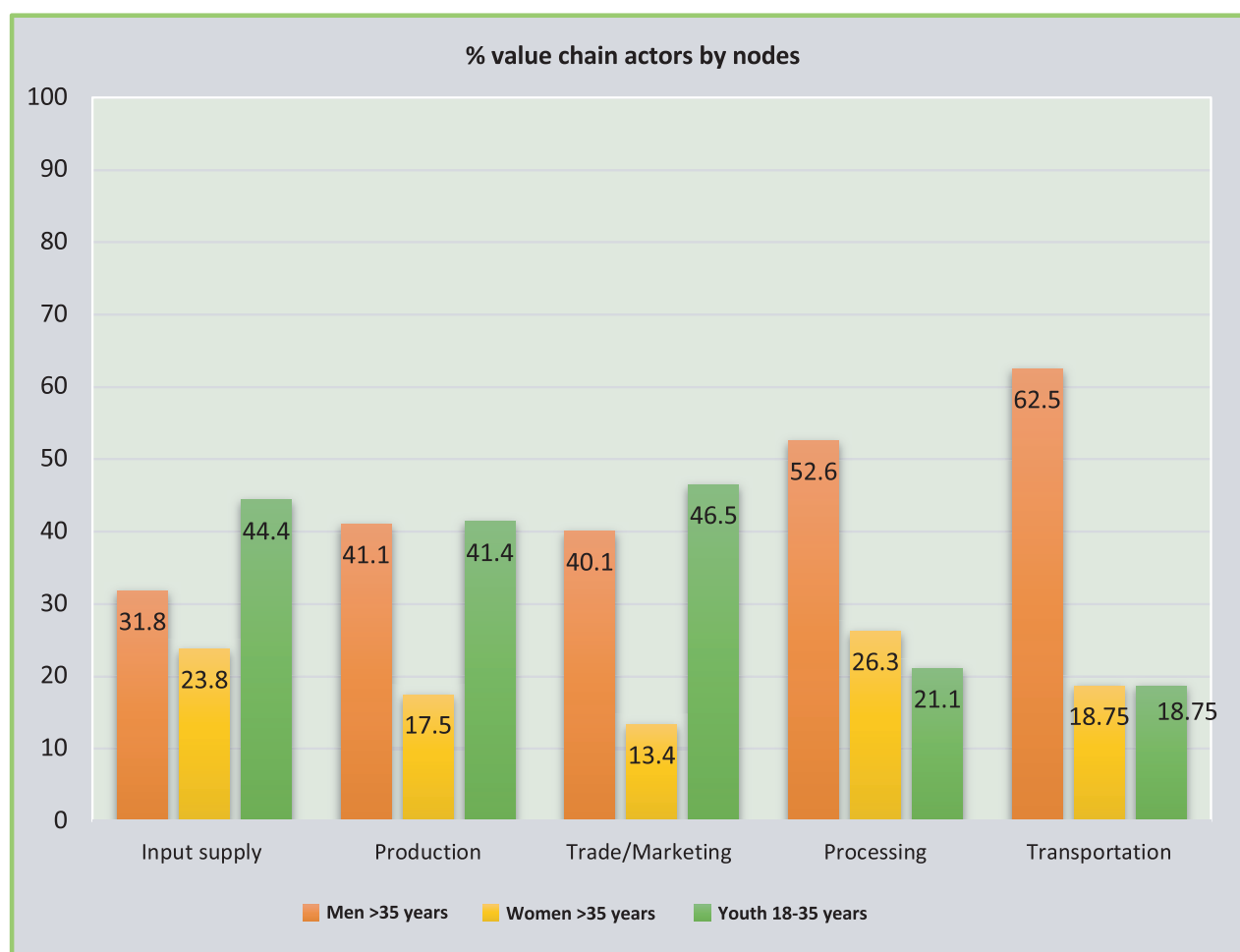
However, recent data on the VCAs reached by the ASDSP II by May 2023, indicate that male domination in the high-investment nodes has been significantly diminished. Across the priority value chains, women have taken over as the leading actors in the processing node by 47.7%, followed by men at 37.4% and youth at 14.9%. In the input supply node, the youth are now the majority by 43.8% followed by men (32.2%) and women (24.0%). Although men still lead in the trade/marketing and transport nodes, their dominance is nearly evened out by the combined force of women and youths in both nodes (Table 6).

Table 6: Engendered distribution of VCAs by the priority value chain nodes

Value chain nodes	Men (>35 years)		Women (>35 years)		Youth (18-35 years)		Total	
	No.	%	No.	%	No.	%	No.	%
Input supply	414	32.2	310	24.0	564	43.8	1,288	100.0
Production	4,377	47.6	3,297	35.9	1,515	16.5	9,189	100.0
Trade/Marketing	1,330	52.9	562	22.3	624	24.8	2,516	100.0
Processing	155	37.4	198	47.7	62	14.9	415	100.0
Transportation	526	50.4	408	39.2	108	10.4	1,042	100.0
Total	6,802	47.1	4,775	33.0	2,873	19.9	14,450	100.0

The strong participation of women in the processing node is mostly evident in the maize and cow milk value chains where they are the majority by 75% and 65%, respectively. Women are also the leading actors in the trade/marketing node of the maize value chain, by 42.4%. The participation of youths is strongest in the beef value chain where they are the leading actors in the input supply, production and trade/marketing nodes.

Figure 4: Emergence of the youth as key actors in the beef value chain



3.8 Constraints and challenges experienced

Although implementation of the ASDSP II has generally progressed well in the county, some constraints and challenges have been experienced in the process. Among the major ones are:

- i. Un-timely availability of funds for planned activities, often occasioned by delays in realisation of counterpart funds by the county government, in accordance with the tripartite agreement signed between the Ministry of Agriculture, Livestock and Fisheries (MoALF), the County Government of Narok and the Swedish Government.
- ii. Shortage of qualified service providers within the county to assist with various technical processes in the implementation of the programme. Hiring of service providers from outside the county is generally more expensive compared to using county-based resource persons.
- iii. There is a generally weak cooperative movement in the county, as most value chain actors still work individually or through fragmented self-help groups with limited capacity to support coordination of work at the grassroots level and facilitate market linkages.
- iv. Effects of climate change on agricultural production is a major deterrent to productivity and general development of the priority value chains.
- v. High incidences of pests and diseases also affect productivity of the value chains.

3.9 Lessons learned

The following are some of the key lessons learned so far, from the implementation of the programme:

- i. Benchmarking is an effective method of fostering group learning and stimulating positive action across the value chains. Most of the value chain actors/organisations sponsored by the programme to benchmarking visits have demonstrated a strong tendency to replicate best practices or new ideas gained from the visits.
- ii. Although the programme has made significant progress to provide entrepreneurship skills training (including basics of business planning) to VCAs, it has been learned that most VCAs still operate without business plans even in situations where a written business plan exists. This has been largely attributed to slow process of behaviour change and a general phobia for formalisation of business operations.
- iii. Training on group dynamics is a critical process in the development of value chains. It has been observed from interactions with various value chain organisations/groups that those trained in group dynamics tend to be relatively faster in decision-making and are more likely to embrace new ideas or positive change in their operations, than the untrained groups.
- iv. Integration of gender needs in the implementation of the Strategic Integrated Value Chain Action Plans (SIVCAPs) and promotion of innovations with high prospects for women and youth, are effective strategies for empowering both groups in the development of the priority value chains. The observed improvement in the participation of women and youths in the value chain nodes previously dominated by men, is largely attributed to the combined implementation of the gender-sensitive approaches and provision of innovation grants to women and youths.
- v. Collaboration and partnership are effective ways of leveraging resources (technical, material, financial) for value chains' development. Through collaboration with different stakeholder in the public, civil society and private sectors, the programme has been able to: extend the reach of its training services in the priority value chains, facilitate market access linkages, increase access to market information, and enhance linkage to financial and insurance services, for the value chain actors.

4. SUSTAINING GAINS AND SECURING THE FUTURE

Throughout the implementation period, the ASDSP II has put much emphasis on approaches geared towards sustainable delivery of its interventions and deepening of gains in the development of priority value chains. Of paramount importance is local ownership of the initiatives to increase productivity, improve entrepreneurial skills, increase market access, and strengthen collaboration, cooperation and coordination among all key stakeholders in the priority value chains.

Thus, the programme has made significant investment in the development of relevant structures and systems which support the following:

- Broad-based stakeholder consultation and involvement in the identification of potential innovations in the priority value chains,
- Development of extended concepts for successful uptake of the innovations,
- Development and implementation of the Strategic Integrated Value Chain Action Plans (SIVCAPs).

The structures include:

- Priority Value Chain Platforms (PVCP),
- County Agricultural Sector Steering Committee (CASSCOM) and
- Umbrella organisations for farmer cooperatives, civil society, the private sector and development partners.

The above structures will have an important role in:

- Strengthening the much-needed linkages for continued access to effective innovations, technologies and essential services across all the priority value chains nodes;
- Access to markets through market linkages and reliable information systems;
- Enhancing access to financial and insurance services, by all value chain actors, for sustainable development of the value chains.
- Providing platforms for common voices in addressing emerging agricultural sector needs and systemic challenges that hinder effective commercialisation of agriculture and undermine the potential of the priority value chains.

To support the establishment of the structures, the programme has taken steps to develop various legal instruments, policies and guidelines that focus on strengthening collaboration and building partnerships in potential areas for realisation of the programme's objectives and the wider agriculture sector development goals. The tools include, the CASSCOM Bill successfully drafted and forwarded to the County Assembly for legislation, Animal Welfare Bill, Crops Agriculture Bill, Livestock Sales Yard Regulations and the programme implementation matrix which provides guidelines on potential areas for collaboration and partnerships. Implementation of the policies and guidelines, are integrated in the five-year County Integrated Development Plan (CIDP) which informs the preparation of county annual development plans, fiscal strategy papers and annual budget estimates. The integration in the CIDP will ensure continued resource allocation for the priorities championed by the programme.

As part of the efforts to enhance sustainability of the ASDSP interventions, the programme has also instituted a system for documentation as a tool for knowledge development and institutional memory building. The system is operationalised through:

- Routine data collection and reporting procedures which include generation of structured biennial and annual reports;
- Periodic surveys to monitor progress and capture key results in line with the programme's monitoring and evaluation framework;
- Systematic documentation of success stories, lessons and best practices for wider replication in the programme area.

The information is disseminated through various channels including online and offline platforms with reach among different stakeholder groups in the development of the priority value chains. The communication needs are well-captured in the programme's communication plan which is one of the key implementation tools.

Accordingly, the programme has developed a comprehensive database of all the key stakeholders including: development partners; services providers from the public, private and non-government sectors; farmer cooperatives and self-help groups; and over 14,000 value chain actors organised into specific value chain platforms with structured leadership. The platform members are connected through WhatsApp groups as avenues for information sharing and continued engagement of the members in the development of the priority value chains.



Members of Narok Country Agricultural Sector Steering Committee (CASSCOM)

5. CONCLUSION

Implementation of the ASDSP has come of age. By addressing the common constraints and challenges which have for a long time hindered effective commercialisation of agriculture; the programme has demonstrated that it is possible to increase productivity in the priority value chains by developing the capacity of the value chain actors, increase income across the priority value chain nodes, create employment, and increase participation of women and youth in the development of the value chains. As the programme approaches the closure date in November 2023, attention is increasingly shifting to initiatives to sustain the implementation gains. These include the establishment of structures and systems that will go along way to ensure continued access to effective innovations, technologies and essential services across the priority value chains; increased access to markets through market linkages and reliable information systems; and enhanced access to financial and insurance services by all value chain actors for sustainable development of the value chains. The successful implementation of the programme has been made possible by the active participation of different stakeholders from the public, non-government and private sectors, under the stewardship of the County Government of Narok through the County Programme Secretariate (CPS). The success would also not have been possible without the generous financial support from the Government of Sweden, the European Union and the Government of Kenya through the Ministry of Agriculture, Livestock and Fisheries (MoALF).



Promoting Smart Agriculture Technologies

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