KENYA CLIMATE SMART AGRICULTURE PROJECT (KCSAP)

Capitol Hill Towers, Cathedral Road
P. O. Box 8073 00200, NAIROBI
Tel: +254 020 2715466
infor@kcsap.go.ke
Website: www.kcsap.go.ke

Project Implementation Plan Manual 2018

MINISTRY OF AGRICULTURE,
LIVESTOCK, FISHERIES AND IRRIGATION
STATE DEPARTMENT FOR CROPS DEVELOPMENT

Kenya Climate Smart Agriculture Project

MINISTRY OF AGRICULTURE,
LIVESTOCK, FISHERIES AND IRRIGATION
STATE DEPARTMENT FOR CROPS DEVELOPMENT

Kenya Climate Smart Agriculture Project

Project Implementation Plan Manual

Version 1 2018

MINISTRY OF AGRICULTURE LIVESTOCK FISHERIES AND IRRIGATION

KENYA CLIMATE-SMART AGRICULTURE PROJECT

PROJECT IMPLEMENTATION PLAN

VERSION 1

2018

Contact Address
Kenya Climate Smart Agriculture Project (KCSAP)
Capitol Hill Towers
P O Box 8073 – 00200
Tel: +254 – 20 2333715466, 701386 685
Email: info@kcsap.go.ke

FORWARD

Kenya's agricultural sector is a key economic and social driver of development. Overall, the sector directly contributes about 25% of Kenya's GDP and about 27% indirectly through linkages to agro-based industries and the service sector. The sector accounts for over 65% of exports, provides about 75% of total employment and supports over 80% of the rural population. The agricultural sector has four major sub-sectors, namely, crops, livestock, fisheries and forestry. Research development is a key component cutting across the four sub-sectors. The Kenya Vision 2030 recognizes the importance of agriculture in its goal of achieving an average GDP growth rate of 10 percent per year by year 2030. This level of growth will be crucial for attaining the SDGs 1 and 2 of ending poverty and hunger respectively. Vision 2030 reiterates the importance of transforming smallholder subsistence agriculture into an innovative, commercially oriented, and modern sector. It identifies the major challenges as low productivity, underutilized land, inefficient markets and limited value addition. The agricultural sector responded to Vision 2030 by developing the Agricultural Sector Development Strategy (ASDS) (2010–2020) which aimed at attaining an average agricultural sector growth of 7 percent per year. The Agriculture Sector Transformation and Growth Strategy (ASTGS) which builds on the lessons learnt from the implementation of the Agriculture Sector Development Strategy (ASDS), Medium Term Plan (MTP II) and experiences with devolution in the agriculture sector gives further insights into agriculture sector development. The strategy integrates and mainstreams the principles of sustainable development goals, tenets of Agenda 2063, NEPAD/CAADP Malabo commitments and the constitutional obligations of a devolved system of governance.

In line with Vision 2030, the ASTGS seeks to address two critical challenges of increasing productivity, commercialization, and competitiveness of agricultural commodities; and developing and managing key factors of production, such as land, water, and rural finance. With respect to adaptation to climate change, ASTGS prioritizes investments in weather information systems, research on drought tolerant crop varieties, soil and water conservation, water

harvesting, and strengthening integrated pest management systems. For livestock subsector, ASTGS prioritizes improved management of grazing systems, biogas, livestock diversification and improved breeding of animals Extreme weather events, largely droughts and to a lesser extent floods, have been the principal source of volatility in the performance of agriculture in Kenya. The frequency and intensity of severe weather events has increased, and this trend will be further amplified in the future as temperatures rise due to climate change. To address this problem, the ministry developed the Kenya Climate Agriculture Strategy (KCSAS) 2017-2026 which aims at countering the climate change negative impacts. The latter include declining agricultural productivity and loss of crops, livestock, fish and investments in agriculture due to changing temperatures and precipitation regimes and increased frequency and intensity of extreme weather events. Further, fisheries and aquaculture are affected through acidification of the water bodies, changes in water temperatures and circulation patterns which alter the physico-chemical properties of the fish habitats and ultimately the productivity.

The sector contributes about 58.6 percent to total Greenhouse Gas (GHG) emissions. Meeting this challenge will require investments in building resilience to short-term shocks and in adapting to long-term climate change. Kenya Climate-Smart Agriculture Project (KCSAP) is one of the projects in the Ministry that addresses issues on climate change. The project offers an appropriate opportunity for responding to and reducing the adverse effects of climate change and thereby help Kenya meet the rising demand for food; and attain the Sustainable Development Goals (SDGs) of ending poverty (SDG1), hunger (SDG2) and combating climate change and its impacts (SDG13). The KCSAP will contribute to GoK's Vision 2030 development strategy, Agricultural Sector Transformation and Growth Strategy (ASTGS) as well as the Kenya Climate Smart Agriculture Strategy (KCSAS).

I take this opportunity to thank the World Bank, for providing the resources to implement the project, the County Governments for their participation, collaboration and partnership in developing the project concept. I urge all the communities and stakeholders involved to diligently implement the project for the benefit of this nation and its people.

Hon. Mwangi Kiunjuri, EGH, MGH
Cabinet Secretary,
Ministry of Agriculture, Livestock, Fisheries & Irrigation

CONTENTS

FOREWORD ..... **I**

TABLE OF CONTENTS ..... **III**

LIST OF FIGURES ..... **V**

ABBREVIATIONS AND ACRONYMS ..... **III**

INTRODUCTION **1**

PROJECT DESCRIPTION **2**

INSTITUTIONAL ARRANGEMENTS **4**

COMPONENT 1 – UPSCALING **7**

1.1 Building Institutional Capacity and Strengthening Service Delivery 7

1.2: Supporting investments in Smallholder Agro-Pastoral Production Systems 12

1.3: Supporting investments in Pastoral Production Systems 14

COMPONENT 2: STRENGTHENING CLIMATE-SMART AGRICULTURAL RESEARCH AND SEED SYSTEMS **16**

2.1: Supporting Climate-Smart Agricultural Research and Innovations 16

2.2: Building Competitive and Sustainable Seed Systems 20

2.3: Strengthening Technical and Institutional Capacity 24

COMPONENT 3: SUPPORTING CLIMATE, AGRO-WEATHER, MARKET INFORMATION AND ADVISORY SERVICES 27

3.1: Improving Agro-meteorological weather forecasting and monitoring 27

3.2: Developing Integrated Weather and Market Information System 30

3.3 Building Technical and Institutional Capacity.....35

COMPONENT 4 - PROJECT COORDINATION AND MANAGEMENT 39

4.1 Project Coordination Implementation.....39

4.2 Monitoring & Evaluation and Impact Evaluation.....42

KCSAP RESULTS FRAMEWORK.....50

LIST OF FIGURES

Figure 1: Results Framework for KCSAP 2
Figure 2: Linkage of project component activities 3
Figure 3: KCSAP Institutional Arrangements 5
Figure 4: Interventions for building institutional capacity and strengthening services delivery 7
Figure 5: Interventions for building institutional capacity and strengthening services delivery (2) 8
Figure 6: Supporting investments in smallholder agro-pastoral production systems 12
Figure 7: Activities supporting pastoral community investments 14
Figure 8: Activities for strengthening climate smart agricultural research 16
Figure 9: Activities for strengthening climate smart agricultural research (..2) 17
Figure 10: Activities for building competitive and sustainable seed systems 20
Figure 11: Activities for strengthening technical and institutional capacity for research 24
Figure 12: Activities for strengthening technical and institutional capacity for research (..2) 24
Figure 13: Activities for improving agro-weather forecasting and advisory services. 28
Figure 14: Activities for developing integrated weather and market information system 30
Figure 15: Activities for developing integrated weather and market information system (...2) 31
Figure 16: Activities for developing integrated weather and market information system (...3) 32
Figure 17: Activities for building technical capacity 35
Figure 18: Activities for building institutional capacity 37
Figure 19: Project Coordination and Management 39
Figure 20: Activities for project coordination and management 40
Figure 21: Monitoring and Impact Evaluation Framework 42
Figure 22: Activities to support of monitoring and evaluation 43
Figure 24: Activities in Support of Monitoring and Evaluation (..2) 44

ABBREVIATIONS AND ACRONYMS

AIP	Agricultural Information Platform
API	Application Programming Interphase
ASAL	Arid and Semi-arid Lands
ASU	Agriculture Statistics Unit
AWP&B	Annual work Plan and Budget
CADO	County Agribusiness Development Officer
CASO	County Agricultural Statistics Officer
CBOs	Community Based Organizations
CDDC	Community Demand Driven Committee
CDDO	Community Driven Development Organization
CDE	County Director of Environment
CDVDC	Community Driven Value Chain Development Committee
CEC	County Environmental Committee
CESSO	County Environmental and Social Safeguards Officer
CGIAR	Consultative Group for International Agricultural Research Centre
CIAP	Community Integrated Action Plan
CIG	Common Interest Group
CIS	Climate Information Services
CNA	Capacity Needs Assessment
CPSC	County Project Steering Committee
CSA	Climate Smart Agriculture
CTAC	County Technical Advisory Committee
CTD	County Technical Department
CTDs	County Technical Departments
DDCWS	Deputy Director in charge of County Metrological Services
EAC	East African Community
ESIA	Environmental and Social Impact Assessment
ESS	Environmental and Social Safeguards
FGD	Focus Group Discussion
GIS	Geo-reference Information Service
GRM	Grievances Redress Mechanism

ABBREVIATIONS AND ACRONYMS

HSNP	Hunger Safety Net Program
IAC	Inspection and Acceptance Committee
ICT	Information and communication Technology
IE	Impact Evaluation
IFC	International Finance Corporation
ILRI	International Livestock Research Institute
KAGRC	Kenya Animal Genetics Resource Centre
KALRO	Kenya Agricultural and Livestock Research Organization
KCSAP	Kenya Climate Smart Agriculture Project
KEFRI	Kenya Forestry Research Institute
KENAFF	Kenya National Farmers Federation
KMD	Kenya Meteorological Department
KWS	Kenya Wildlife Service
M&E	Monitoring and Evaluation
MIGA	Multilateral International Guarantee Agency
MoALFI	Ministry of Agriculture Livestock Fisheries and Irrigation
MOU	Memorandum of Understanding
NARS	National Agricultural Resource System
NDMA	National Disaster Management Authority
NDVI	Normalized Difference Vegetation Index
NEDI	Northern Eastern Development Initiative
NEMA	National Environmental Management Authority
NPCU	National Project coordination Unit
NTAC	National Technical Advisory Committee
ODK	Open Data Kit
PAD	Project Appraisal Document
PDO	Project Development Objective
PICD	Participatory Integrated Community Development
PIP	Project Implementation Plan
PMC	Procurement Management Committee
PMIS	Project Management Information System
PO	Producer Organization

ABBREVIATIONS AND ACRONYMS

PPD	Public Private Dialogue
PPP	Public Private Partnership
RC	Results Chain
SACCO	Savings and Credit Cooperative
SAIC	Social Accountability and Integrity Committee
SDGs	Sustainable Development Goals
SP	Service Provider
TIMPS	Technologies, Innovations and Management Practices
TNA	Training Needs Assessment
TORs	Terms of Reference
TOT	Training of Trainers
TWG	Thematic Working Group
UAI	Unit Area of Insurance
VC	Value Chain
VMG	Vulnerable and Marginalized Group
WRUA	Water Resource Users' Association

INTRODUCTION

1. Kenya Climate-Smart Agriculture Project (KCSAP) is one of the projects in the agricultural and natural resources sector that is addressing the climate change impacts in Kenya. The Project is aimed at responding to and reducing adverse effects of climate change and thereby help Kenya meet the rising demand for food; and attain the Sustainable Development Goals (SDGs) of ending poverty (SDG1), hunger (SDG2) and combating climate change and its impacts (SDG13). The KCSAP will contribute to GoK's Vision 2030 development strategy as well as the Agricultural Sector Development Strategy 2010–2020 (ASDS).

2. The project cost is estimated at USD 279.7 million to be jointly funded by Kenya Government (USD 24.2million) and The World Bank (USD 250 million). The project beneficiaries are also expected to contribute USD 5.5 million in cash or cash equivalent. The project will be implanted in 24 counties covering 72 sub-counties and 144 wards.

3. The project is starting nearly one year late due administrative and logistical processes. However, significant steps have been made to operationalize the project since its approval on 7 February 2017. These key steps include:

    i The opening of DA1 and DA2 accounts at Central Bank of Kenya through which the project activities at county and national levels will be respectively funded.

    ii The signing of MOUs between the 24 county governments and the national government symbolizing political goodwill to implement the project. This was followed by the launch by technical and executive launch of the project at both national and county level

    iii The establishment of steering and coordination structures at national county levels. Community level institutions will be formed as part of project implementation.

    iv National Programme Coordination Secretariat has prepared 9 manuals covering – Financial Management, Procurement Management, M&E, Extension and Value Chain, Matching Grants, and Collaborative Research. Each of these manualselaborate what the project will support and how that support will be provided.

4. This project implementation plan (PIP) serves the following three main purposes:
    i It consolidates the activities and procedures detailed in the 9 manuals into a single implementation handbook.
    ii The preparation of the document provided opportunity to identify gaps in the 9 manuals and clarify concepts into coherent processes required to operationalize the project.
    iii The PIP provides timeliness and milestones for implementation of various project activities including the resources and responsibilities of various actors expected to implement the project.

PROJECT DESCRIPTION

5. The Project Development Objective (PDO) is "to increase agricultural productivity and build resilience to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response." The project has four main components as summarized below:

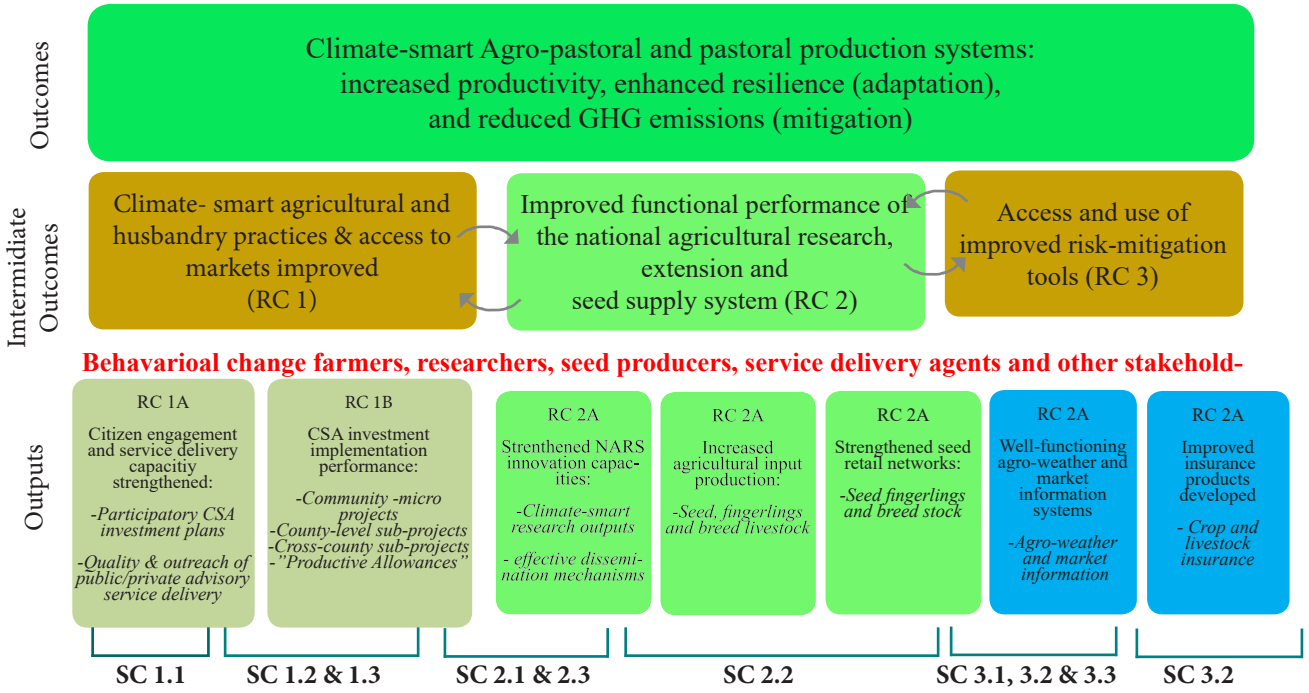
6. Component 1: Upscaling Climate-Smart Agricultural Practices focuses on interventions that promote and facilitate the adoption of TIMPs to achieve the CSA triple-wins: increased productivity; enhanced resilience (adaptation) and reduced GHG emissions (mitigation) per unit of output, as co-benefits.

7. Component 2: Strengthening Climate-Smart Agricultural Research and Seed Systems supports the development, validation and adoption of context-specific CSA TIMPs to target beneficiaries under Components 1 and 3; and also develop sustainable seed production and distribution systems. The component will also strengthen technical and institutional capacity of Kenya Agricultural and Livestock Organization (KALRO) to deliver its mandate and GRIFTU Pastoral Training Institute to deliver training.

8. Component 3: Supporting Agro-weather, Market, Climate and Advisory Services, supports development of agro-weather forecasting and marketing information system and their dissemination tools.

9. Component 4: Project Coordination and Management, supports activities related to national and county-level project coordination and management, including annual work planning and budgeting (AWP&B); fiduciary aspects (financial management and procurement); human resource (HR) management; safeguards compliance monitoring; development and implementation of Management Information System (MIS) and information, communication technology (ICT)-based platforms; monitoring and evaluation (M&E) and impact evaluation (IE) studies; and communication strategy and citizen engagement.

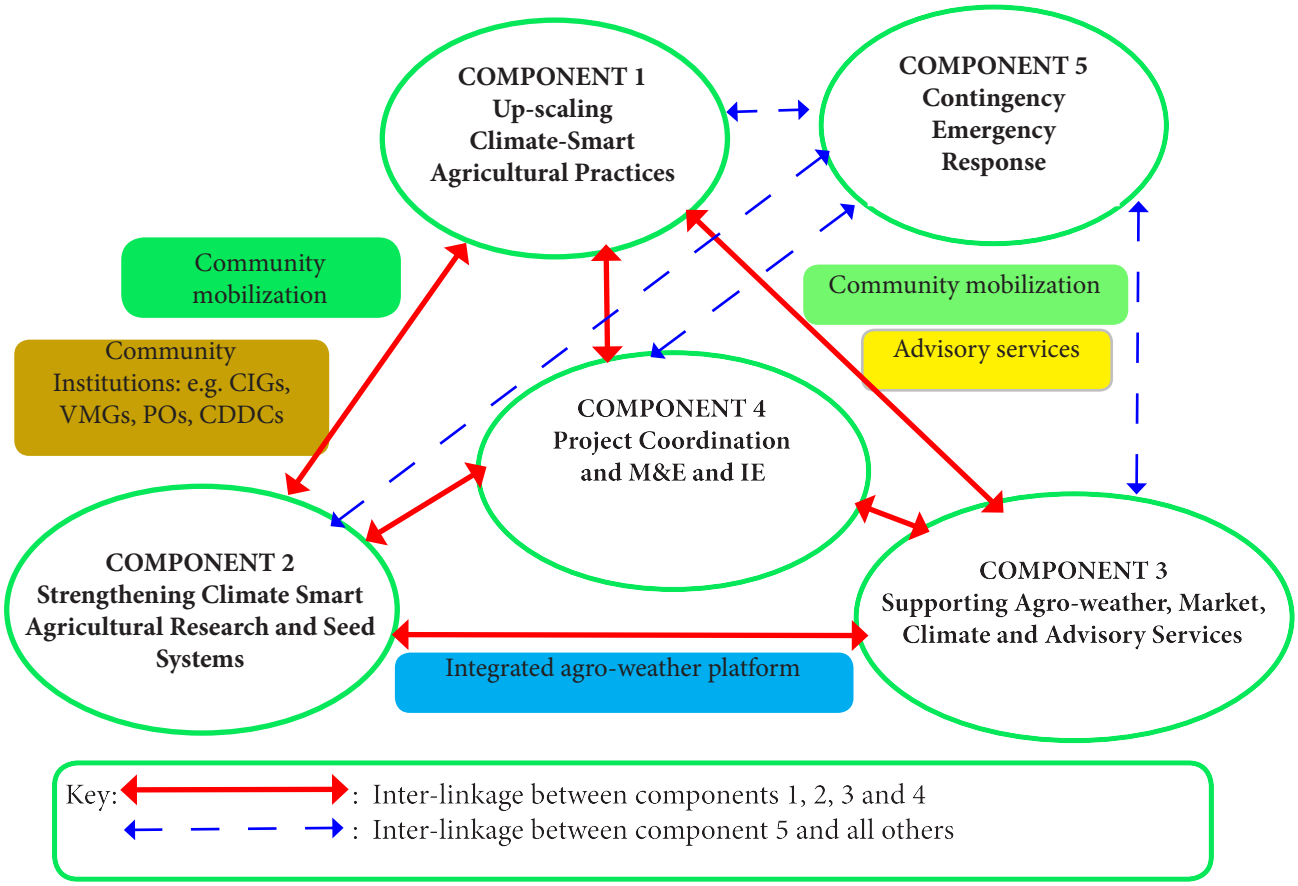
Figure 1: Results Framework for KCSAP



10. Component 5: Contingency Emergency Response. This component was provided to finance eligible expenditures related to emergency responsesin case of natural or man-made crises or disasters, severe economic shocks or other crises and emergencies.

11. All the component activities are linked to support realization of the project development objectives and intermediate outcomes as shown in the results frame work below.

Figure 2: Linkage of project component activities



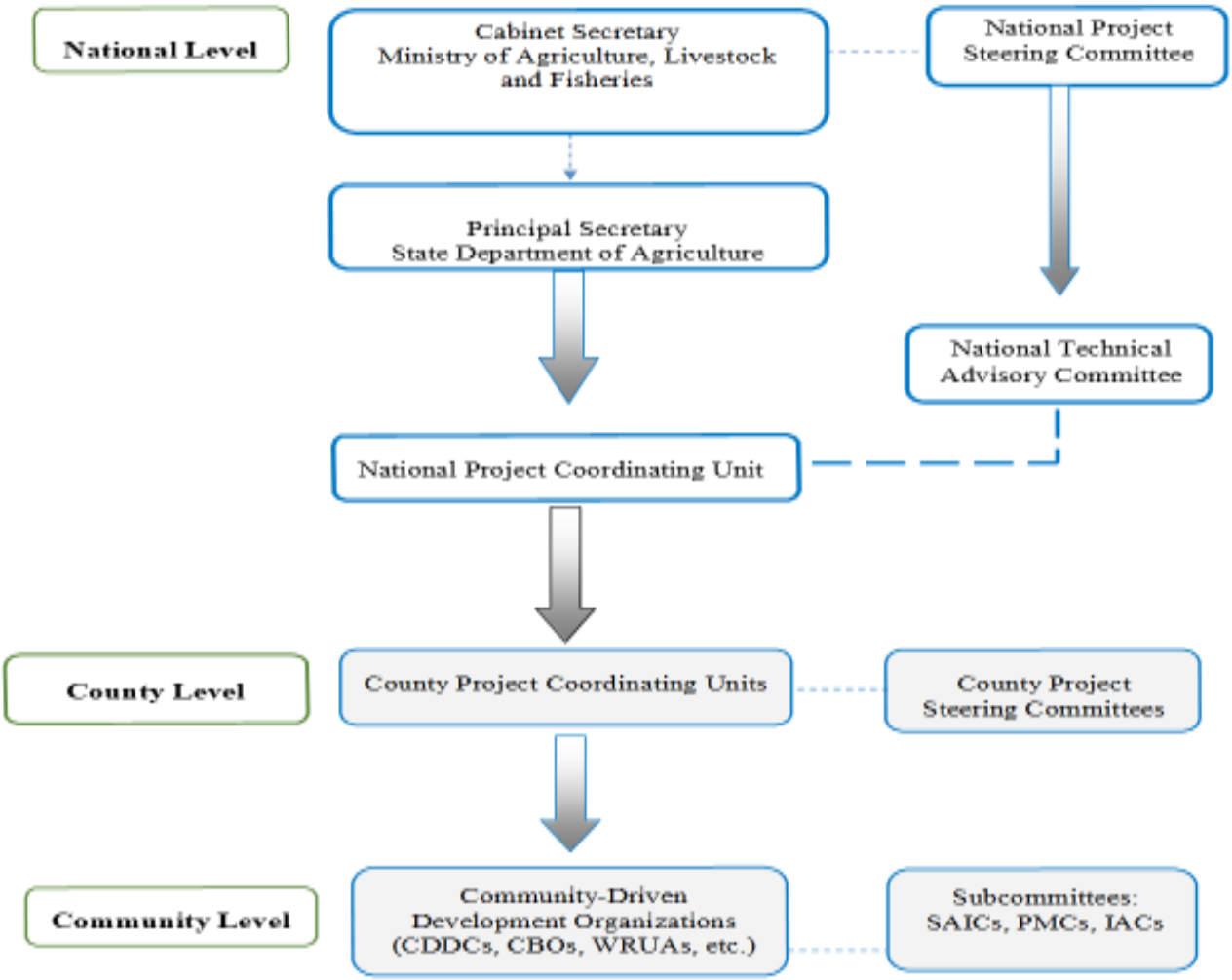
INSTITUTIONAL ARRANGEMENTS

12. The project's fiducially responsibilities will be under the State Department of Agriculture at the MoALFI. At the National level, the project will support the formation and activities of two project structures created to the provide policy and technical guidance in coordination and implementation of the KCSAP: (i) a National Project Steering (NPSC) which will be co-Chaired by the Cabinet Secretary, MoALFI and the Chair of Agricultural Committee in the Council of Governors. NPSC members will include Principal Secretaries (PSs) from the relevant state departments (National Treasury; Agriculture, Livestock, and Fisheries; Environment and Natural Resources; Water and Irrigation; Industrialization and Enterprise Development; and Devolution and Planning), two Governors representing participating counties, Coordinator of Intergovernmental Secretariat for Agricultural Sector and (ii) a National Technical Advisory Committee (NTAC), comprising (among others) directors of relevant line ministry departments, directors general of the relevant government agencies (KALRO, KEMFRI,58 NEMA), Chair of Inter-governmental Technical Working Group (ITWG) responsible for Projects/Programs, Chair and Secretary of County Executive Committee Agricultural Caucus, and representatives of KEPHIS, Kenya Association of Manufacturers, and STAK, will be chaired by the Director of Agriculture, MoALFI. NTAC will be responsible for providing technical support to overall project implementation and approving the national- and county-level investment and CSA research proposals. The number of members of NTAC attending each meeting will depend on the agenda or technical advice sought by the NPCU. The national government, through NPCU will be responsible for implementing Components 2, 3 and part of Component 4(namely, project coordination and M&E at the national level). The Technical Committee will ensure that proposed reforms follow a common and coherent overall framework in line with stakeholder analysis and views. The National Project Coordinator will be the secretary of these two implementation structures. The steering committee will facilitate the formation and functions of the requisite sub committees. At this level the project will also support the establishment and operations of a National Project Coordination Unit (NPCU) which provides overall coordination of the project, while overseeing the Monitoring, Evaluation, Information, Knowledge Management and Communication along with the mainstreaming of other cross- cutting functions; while acting as a liaison between the farmers, private, public institutions, and the project. The NPCU will be staffed by professionals/qualified

staff, who will be seconded from the line ministries and implementing agencies for the entire period of the Project.

13. At the County level, County Project Coordination Units (CPCUs) to coordinate project implementation and reporting on county interventions will be formed. The CPCU will be staffed by qualified and competent staff deployed from County line Ministries. They will directly report to CEC/Chief Officers Agriculture. The Council of Governors will play a critical role as they will provide the required structural linkage between the National and County Governments. In order to provide Project implementation oversight, a County Project Steering Committee (CPSC) will also be formed. It will be chaired by the County Executive Committee member for the agricultural sector, will provide project implementation oversight in the respective counties. The CPSC will comprise chief officers of the relevant county ministries and representatives from the private sector and civil society in the respective counties. CPSC will be responsible for approving the project's AWP&Bs at the county level and community micro-project proposals. CPSC will also ensure that project activities are incorporated in the respective County Annual Plans (CAPs) and CIDPs. The County Technical Advisory Committee (CTAC) formed under the project will provide technical support to project implementation and provide quality assurance at county level. It will be chaired by the Director of the agricultural sector in each county. Members of the CTAC will include directors of agriculture, livestock, and fisheries; water and irrigation; environment and natural resources; cooperatives; and meteorology. Other members will include center directors of KALRO, Kenya Forest Service (KFS), and Kenya Wildlife Service (KWS), as well as branch Chair of Chamber of Commerce, county in charge of KENAFF, and representatives of other agricultural projects in the county.

Figure 3: KCSAP Institutional Arrangements



Institutions at National Level		
No.	Institution	Function
1.	MoALFI	Overall coordination and fiduciary management
2.	National Project Steering Committee	Oversight and policy guidance
3.	National Technical Advisory Committee	Provide technical support to project implementation
4.	National Project Coordination Unit	Day to day project implementation management
5.	Kenya Agriculture and Livestock Research Organization	Develop and disseminate TIMPS
6.	Kenya Meteorological Department	Develop and disseminate agro- weather information services
7.	Kenya Plant Health Inspectorate Services	Seed testing and certification
Institutions at County Level		
1.	24 County governments	Overall coordination and fiduciary management at county level
2.	County Project Steering Committee	Project technical support to project implementation and quality assurance at county level
3.	County Project Coordination Unit	Day to day project implementation management at County level
Institutions at Community Level		
1.	Community driven development organizations CIGs, VMGs, Farmer Organizations etc.	Preparation and implementation of micro projects
2.	Service Providers	Provide technical agricultural and value chain related services

COMPONENT ONE

COMPONENT 1 – UPSCALING CLIMATE SMART AGRICULTURAL PRACTICES

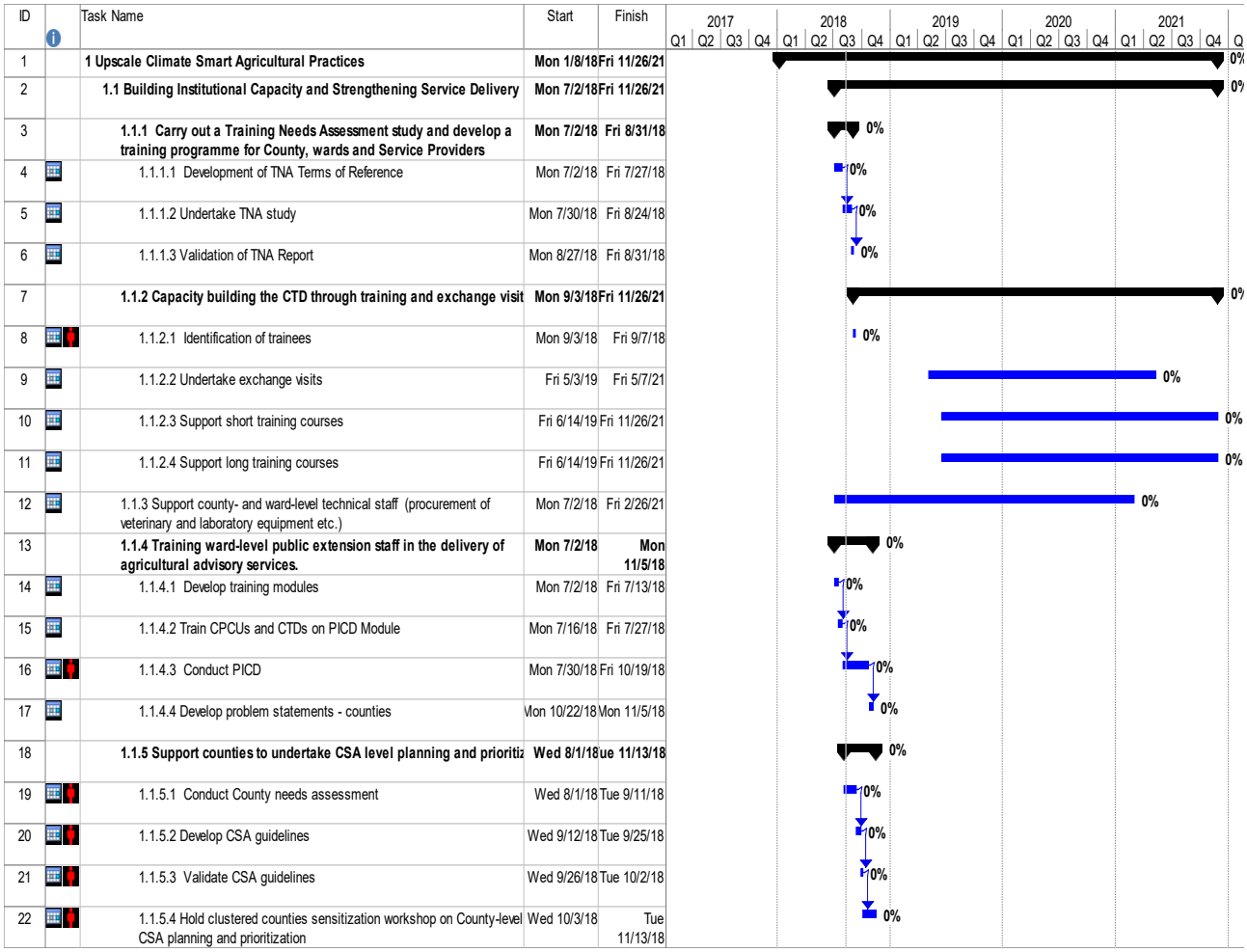
14. The objective of the component is to up scale the implementation of CSA practices to achieve triple-wins of increased productivity; enhanced resilience (adaptation) and reduced GHG emissions (mitigation) per unit of output, as co-benefits. The component will focus on interventions that promote and facilitate the adoption of TIMPs to achieve the CSA triple-wins. There are three subcomponents:

(i) building institutional capacity and strengthening service delivery;
(ii) supporting investments in smallholder agro-pastoral production systems; and
(iii) Supporting investments in pastoral extensive production systems.

1.1 Building Institutional Capacity and Strengthening Service Delivery

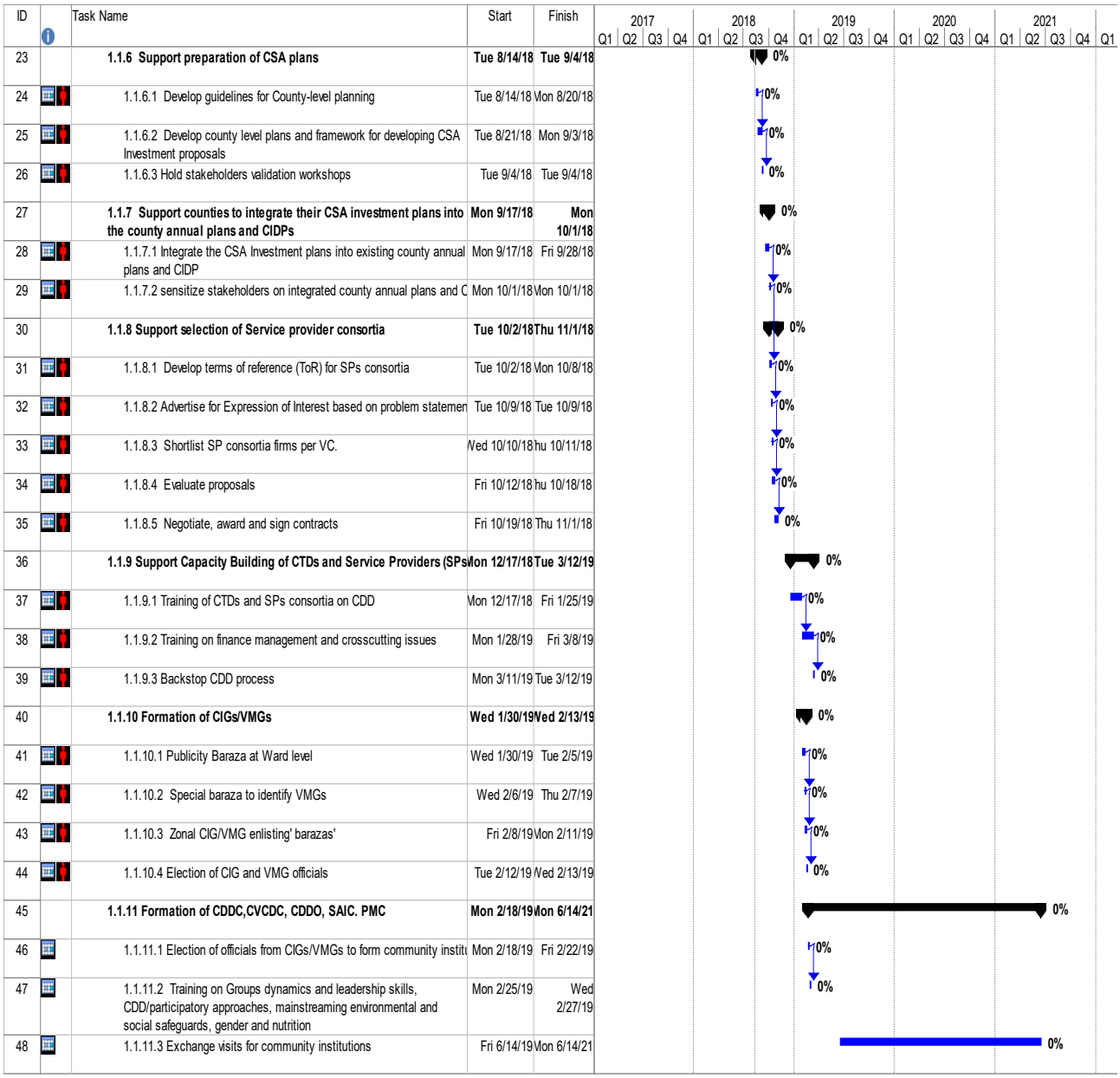
15. The objective of this sub component is to enhance the capacity of county, ward and services providers to plan, prioritize and effectively provide advisory services. Although the activities in the subcomponent will run through the project implementation period, most of them will be undertaken during the first year as shown in Figure 4 and 5 in order to enable benefits of the TIMPs to percolate to the beneficiaries during the project period.

Figure 4: Interventions for building institutional capacity and strengthening services delivery



ID	Task Name	Start	Finish
1	**1 Upscale Climate Smart Agricultural Practices**	**Mon 1/8/18**	**Fri 11/26/21**
2	**1.1 Building Institutional Capacity and Strengthening Service Delivery**	**Mon 7/2/18**	**Fri 11/26/21**
3	**1.1.1 Carry out a Training Needs Assessment study and develop a training programme for County, wards and Service Providers**	**Mon 7/2/18**	**Fri 8/31/18**
4	1.1.1.1 Development of TNA Terms of Reference	Mon 7/2/18	Fri 7/27/18
5	1.1.1.2 Undertake TNA study	Mon 7/30/18	Fri 8/24/18
6	1.1.1.3 Validation of TNA Report	Mon 8/27/18	Fri 8/31/18
7	**1.1.2 Capacity building the CTD through training and exchange visit**	**Mon 9/3/18**	**Fri 11/26/21**
8	1.1.2.1 Identification of trainees	Mon 9/3/18	Fri 9/7/18
9	1.1.2.2 Undertake exchange visits	Fri 5/3/19	Fri 5/7/21
10	1.1.2.3 Support short training courses	Fri 6/14/19	Fri 11/26/21
11	1.1.2.4 Support long training courses	Fri 6/14/19	Fri 11/26/21
12	1.1.3 Support county- and ward-level technical staff (procurement of veterinary and laboratory equipment etc.)	Mon 7/2/18	Fri 2/26/21
13	**1.1.4 Training ward-level public extension staff in the delivery of agricultural advisory services.**	**Mon 7/2/18**	**Mon 11/5/18**
14	1.1.4.1 Develop training modules	Mon 7/2/18	Fri 7/13/18
15	1.1.4.2 Train CPCUs and CTDs on PICD Module	Mon 7/16/18	Fri 7/27/18
16	1.1.4.3 Conduct PICD	Mon 7/30/18	Fri 10/19/18
17	1.1.4.4 Develop problem statements - counties	Mon 10/22/18	Mon 11/5/18
18	**1.1.5 Support counties to undertake CSA level planning and prioriti**	**Wed 8/1/18**	**ue 11/13/18**
19	1.1.5.1 Conduct County needs assessment	Wed 8/1/18	Tue 9/11/18
20	1.1.5.2 Develop CSA guidelines	Wed 9/12/18	Tue 9/25/18
21	1.1.5.3 Validate CSA guidelines	Wed 9/26/18	Tue 10/2/18
22	1.1.5.4 Hold clustered counties sensitization workshop on County-level CSA planning and prioritization	Wed 10/3/18	Tue 11/13/18

Figure 5: Interventions for building institutional capacity and strengthening services delivery(2)



ID	Task Name	Start	Finish
23	**1.1.6 Support preparation of CSA plans**	**Tue 8/14/18**	**Tue 9/4/18**
24	1.1.6.1 Develop guidelines for County-level planning	Tue 8/14/18	Mon 8/20/18
25	1.1.6.2 Develop county level plans and framework for developing CSA Investment proposals	Tue 8/21/18	Mon 9/3/18
26	1.1.6.3 Hold stakeholders validation workshops	Tue 9/4/18	Tue 9/4/18
27	**1.1.7 Support counties to integrate their CSA investment plans into the county annual plans and CIDPs**	**Mon 9/17/18**	**Mon 10/1/18**
28	1.1.7.1 Integrate the CSA Investment plans into existing county annual plans and CIDP	Mon 9/17/18	Fri 9/28/18
29	1.1.7.2 sensitize stakeholders on integrated county annual plans and C	Mon 10/1/18	Mon 10/1/18
30	**1.1.8 Support selection of Service provider consortia**	**Tue 10/2/18**	**Thu 11/1/18**
31	1.1.8.1 Develop terms of reference (ToR) for SPs consortia	Tue 10/2/18	Mon 10/8/18
32	1.1.8.2 Advertise for Expression of Interest based on problem statemen	Tue 10/9/18	Tue 10/9/18
33	1.1.8.3 Shortlist SP consortia firms per VC.	Wed 10/10/18	Thu 10/11/18
34	1.1.8.4 Evaluate proposals	Fri 10/12/18	Thu 10/18/18
35	1.1.8.5 Negotiate, award and sign contracts	Fri 10/19/18	Thu 11/1/18
36	**1.1.9 Support Capacity Building of CTDs and Service Providers (SPs**	**Mon 12/17/18**	**Tue 3/12/19**
37	1.1.9.1 Training of CTDs and SPs consortia on CDD	Mon 12/17/18	Fri 1/25/19
38	1.1.9.2 Training on finance management and crosscutting issues	Mon 1/28/19	Fri 3/8/19
39	1.1.9.3 Backstop CDD process	Mon 3/11/19	Tue 3/12/19
40	**1.1.10 Formation of CIGs/VMGs**	**Wed 1/30/19**	**Wed 2/13/19**
41	1.1.10.1 Publicity Baraza at Ward level	Wed 1/30/19	Tue 2/5/19
42	1.1.10.2 Special baraza to identify VMGs	Wed 2/6/19	Thu 2/7/19
43	1.1.10.3 Zonal CIG/VMG enlisting' barazas'	Fri 2/8/19	Mon 2/11/19
44	1.1.10.4 Election of CIG and VMG officials	Tue 2/12/19	Wed 2/13/19
45	**1.1.11 Formation of CDDC,CVCDC, CDDO, SAIC. PMC**	**Mon 2/18/19**	**Mon 6/14/21**
46	1.1.11.1 Election of officials from CIGs/VMGs to form community instit	Mon 2/18/19	Fri 2/22/19
47	1.1.11.2 Training on Groups dynamics and leadership skills, CDD/participatory approaches, mainstreaming environmental and social safeguards, gender and nutrition	Mon 2/25/19	Wed 2/27/19
48	1.1.11.3 Exchange visits for community institutions	Fri 6/14/19	Mon 6/14/21

In order to actualize the capacity of counties to implement the project, the following key activities will be undertaken including

Activity 1: ***Carrying out a Technical Needs Assessment (TNA) study then develop a training programme for Counties, wards and Service Providers. The steps in implementing this activity are:***

Step 1: Development of TNA Terms of Reference

Step 2: Advertisement for consultancy services

Step 3: Evaluation of Bids and award

Step 4: Undertake a TNA study (Questionnaire development, administrative and reporting)

Step 5: Backstopping on TNA

Step 6: Validation of TNA Report

Step 7: Implementation of the report

Activity 2: ***Capacity building the County Technical Departments (CTDs) through training and exchange visits.***

Step 1: Analyse training needs as informed by the TNA report

Step 2: Develop a criteria to identify trainees informed by the TNA report

Step 3: Undertake identification of trainees based on skills gap both for short and long courses

Step 4: Facilitate the trainees by availing the required resources

Activity 3: ***Support county- and ward-level technical staff (Procurement of veterinary and laboratory equipment, IT and office equipment); O&M of offices, equipment.***

Step 1: Development of Specifications

Step 2: Advertise for bids

Step 3: Evaluate bids and award tenders

Step 4: Inspection and Acceptance

Activity 4: ***Training ward-level public extension staff in the delivery of agricultural advisory services.***

Step 1: Develop training modules based on the 11 value chains - Cassava, green grams, sorghum, millet, pigeon peas, Irish Potatoes, bananas, tomatoes, honey, indigenous poultry (meat and eggs), dairy, and red meat (cattle).

Step 2: Train CPCUs and CTDs on PICD Module – this envisages the details as outlined in PICD process in the next step by relating theory to practice.

Step 3: Conduct PICD to identify community needs. The identification process will be undertaken in the following sequenced sub-activities:

i. 1 day opinion leaders meeting per zone in 4 zones per ward as anentry and re-entry point to the community. The objective is to get acquainted with the community, build trust and relationship, collect basic data and introduction/initiate the phase.

ii. This is followed by a 1day community ward level public baraza to initiate/ create awareness and attitude change through role plays e.g. River code, Secrete in Box, Take a Step, The boat is sinking, 65 years old couple. Consequently nomination of community representatives for phase3 and 4 activities (Social and zonal inclusivity to be upheld).

iii. Next is a 2 day ward level with community representatives'/ opinion leaders FGDs to kick start the data gathering and situation analysis process using the following tools; Community resource mapping, Seasonal calendar, 24 hour day schedule, Problem and resource bags, Visioning matrix and visioning matrix discussions culminating into formation of CDDC.

iv. Next phase is a 4 days planning at ward level with community representatives/opinion leaders to undertake long and short term goals setting, future maps, CIAPs and Ward level CSA investment plans, Resource Mobilisation, ppotential TIMPs identification, VC analysis, profiling of potential Micro and Sub-projects.

v. Finally the process is concluded by having a 1 day level baraza to conduct a CIAP ratification, where the draft CIAP is presented, verified, modified, adopted and owned by the beneficiaries. The agenda of the day's activities include: explaining to the beneficiaries the process that led to the CIAP, verifications, modification, ratification and adoption of the CIAP.

Step 4: Develop problem statements for counties as an output of the PICD process

i. Data collected during PICD process will be analysed to reveal the production gaps/constraints

as the basis for a problem statement.

ii. The problem statements will be developed by the sub-CTAC in collaboration with the CPCU and will form the basis of service providers' selection

Activity 5: ***Support counties to undertake CSA level planning and prioritization***

Step 1: Conduct County needs assessment to identify Technical Assistance (TA) requirements'. This relate to the TIMPS identified and validated as gaps relating to technologies.

Step 2: Develop CSA guidelines. This will entail the following;

a. Situation analysis of natural resource endowments, farming systems, location-specific climatic risks and areas of acute vulnerability for the agricultural sector;

b. Targeting and prioritization focusing on:

i Analysis of priority intervention areas and relevant investments for each county or cross-county;
ii Identification of priority VCs to focus project efforts;
iii Selection of priority sub-counties and wards for concerted action;
iv Identification of potential county-level investments needed for climate resilience

Step 3: Validate CSA guidelines

Step 4: Hold 3 clustered counties sensitization workshop on County-level CSA planning and prioritization.

Activity 6: ***Support preparation of County-level planning***

Step 1: Develop guidelines for County-level planning

Step 2: Develop county level plans and framework for developing CSA Investment proposals

Step 3: Hold stakeholders workshops for comments and validation of the county-level plans

Activity 7: ***Support counties to integrate their CSA investment plans into the county annual plans and CIDPs (for ownership & sustainability)***

Step 1: Integrate the CSA Investment plans into existing county annual plans and CIDP

Step 2: Sensitize stakeholders on integrated county annual plans and CIDPs

Activity 8: ***Competitive selection of Service Providers consortia***

Step 1: Develop terms of reference (ToRs) for SPs consortia

Step 2: Advertisement of Expression of Interest based on problem statements

Step 3: Shortlist SP consortia firms per VC.

Step 4: Evaluate proposals

Step 5: Negotiate, award and sign contracts

Activity 9: ***Capacity Build CTDs, Service Providers***

Step 1: Train CTDs and SPs consortia on CDD

Step 2: Training on fiduciary management and crosscutting issues (mainstreaming environmental and social safeguards, gender and nutrition, communication, GRM)

Step 3: Backstop CDD process

Activity 10: ***Formation of CIGs /VMGs***

Step 1: Conduct publicity Barazas at Ward level. This will trigger the process of formation of CIGs/VMGs and sequentially the following steps shall apply;

Step 2: Formulation of conceptualised enterprise specific climate-smart agriculture investment opportunities

Step 3: Review of the formulated opportunity where the SP and the CPCU shall organize a county professional group meeting to review and enrich proposals e.g. name of VC and enterprise being promoted, cost of inputs that a farmer/pastoralist would incur in order to realize the intended benefits such as increase in productivity, proposed interventions by the SP consortia on various aspects of the VC/enterprise and gross margin analysis

of investing in the VC/enterprise

Step 4: Flagging of the opportunity

Step 5: Enlisting of members interested in the opportunity

Step 6: Election of leaders. The process of electing leaders will follow following procedure

a. Each enlisted group (CIGs/VMGs) will hold democratic elections of its leadership comprising three committees (executive, procurement and social accountability and integrity-SAIC).

b. Each of these committees will have three members (chair, secretary and treasurer).

c. The constitutionally recognized one third gender rule will be adhered to during the elections.

d. The leadership of the CIG/VMG comprising chair, secretary and treasurer will be the basic institution and primary entry point for KCSAP initiatives.

e. All these committees from the various groups within a given value chain will hold elections progressively from the zonal, ward and county levels to ensure representation at each level. Gender and VMG representation must be adhered to during all these elections.

f. All CIGs/VMGs with the help of SP consortia and the CPCU will develop a constitution and register with the department of social services within one month of their formation.

Activity 11: *Formation* of ward and county community institutions (CDDC, CVCDC, CDDO, SAIC. PMC)

Step 1: Election of officials to constitute the above institutions by CIG and VMG officials

a. The opinion leaders who participated in the PICD process and in CIAP barazas will team up with other CIG/VMG leaderships both from the existing and newly formed groups for election to form a 13-member ward Community Driven Development Committee (CDDC) This is an important committee that will spearhead emerging CSA ward investment micro/sub-projects on behalf of the community and link the Micro/sub-projects with other service providers even long after the programme has exited from the ward.

b. The CDDC will be trained for two days and shall undertake the following activities:

i Formulating a constitution in line with the value chain and register with the department of social services or commissioner of co-operatives;

ii Establish sub-committees (procurement and social accountability and integrity to assist it in its oversight role.

iii The CDDC shall meet at least 4 times in a year.

a. All ward executive members from specific value chains will then elect two ward representatives (male and Female) to the County Value Chain Development Group (CVCDG).

b. The CVCDG will meet at county level and elect members to County Value Chain Development Committee (CVCDC) that will manage their value chain extension service provision grants.

c. The same process will apply for the **procurement** and **SAIC committees.**

Step 2: Training of ward and county community Institutions (CDDC, CVCDC, CDDO, SAIC, PMC). The training will focus mainly the following:-

a. Cooperatives based on VC-specific micro-projects planning,

b. Implementation, and monitoring;

c. Fiduciary aspects (community procurement and financial management);

d. Gender and social inclusion, safeguards compliance (using environmental and social safeguards checklists, and grievance handling mechanisms); and

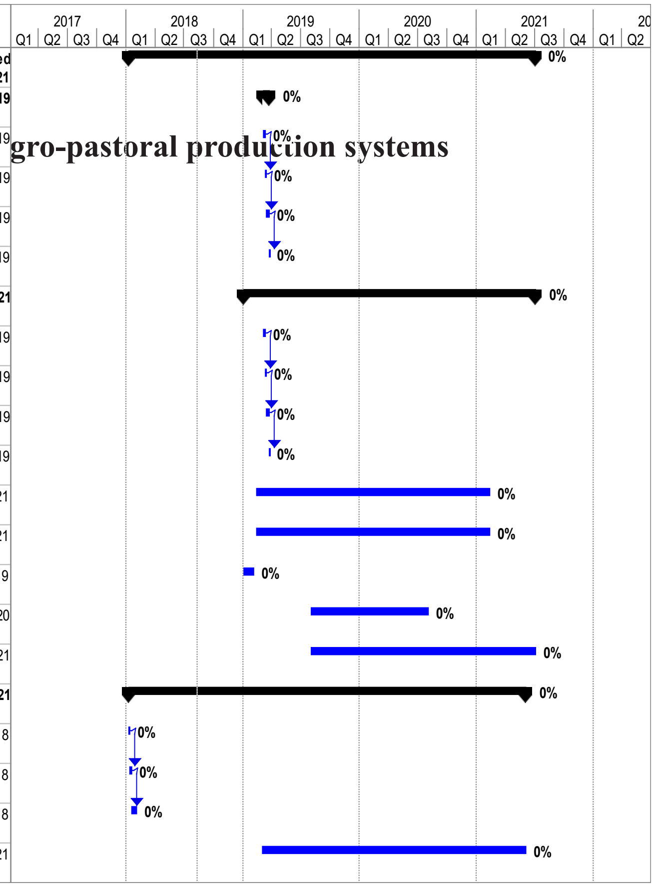
e. Business management skills (enterprise planning, value addition, access to markets and rural finance).

1.2: Supporting investments in Smallholder Agro-Pastoral Production Systems

16. The objective of this sub component is to support farmers and agro-pastoralists to implement CSA TIMPs that provide triple-wins in 17 Counties. Three windows will be available to support community investments/micro projects, county sub projects as well as Producer Organizations (PO) and Public Private Partnerships (PPP) to build alliances. Most activities are programmed to be implemented early as shown in Figure 6 so that benefits of the project investments are visible by the time projects come to an end in February 2022.

Figur gro-pastoral production systems

ID	Task Name	Start	Finish
49	**1.2 Supporting investments in Smallholder Agro-Pastoral Production Systems**	**Mon 1/8/18**	**Wed 6/30/21**
50	**1.2.1 Support Community level investments under Window 1**	**Mon 3/4/19**	**Fri 3/22/19**
51	1.2.1.1 Hold Consultative meetings to review the CIAPs and tease out the priority microprojects and areas for VMG involvement	Mon 3/4/19	Fri 3/8/19
52	1.2.1.2 Train SP consortia on microproject proposal development	Mon 3/11/19	Wed 3/13/19
53	1.2.1.3 Microproject proposal development	Thu 3/14/19	Wed 3/20/19
54	1.2.1.4 Review and approve microprojects	Thu 3/21/19	Fri 3/22/19
55	**1.2.2 Support County level investments under Window 11**	**Tue 1/1/19**	**Wed 6/30/21**
56	1.2.2.1 Hold Consultative meetings to review the CIDP and tease out the priority sub-projects and areas for VMG involvement	Mon 3/4/19	Fri 3/8/19
57	1.2.2.2 Train CTDs on sub-project proposal development	Mon 3/11/19	Wed 3/13/19
58	1.2.2.3 Subproject proposal development	Thu 3/14/19	Wed 3/20/19
59	1.2.2.4 Review and approve Sub-projects	Thu 3/21/19	Fri 3/22/19
60	1.2.2.5 Formation of savings and loans groups	Mon 2/11/19	Tue 2/9/21
61	1.2.2.6 Federation and registration of S & L groups into SACCOs	Mon 2/11/19	Tue 2/9/21
62	1.2.2.7 Develop criteria for vetting SACCOs that qualify for matching gra	Tue 1/1/19	Thu 1/31/19
63	1.2.2.8 Vet SACCOs to access matching grants	Thu 8/1/19	Fri 7/31/20
64	1.2.2.9 Linking SACCOs to micro finance institutions and commercial b	Thu 8/1/19	Wed 6/30/21
65	**1.2.3 Support to Public Private Partnerships alliances with Producers under Window 111**	**Mon 1/8/18**	**Tue 6/1/21**
66	1.2.3.1 Develop ToR for KENAFF	Mon 1/8/18	Tue 1/9/18
67	1.2.3.2 Develop and Review technical and financial proposal from KENA	Wed 1/10/18	Tue 1/16/18
68	1.2.3.3 Sign MOU with KENAFF	Wed 1/17/18	Tue 1/30/18
69	1.2.3.4 Support 30 Pos and private firms	Fri 3/1/19	Tue 6/1/21



Activity 1: *Support Community level investments under Window 1*

Step 1: Hold consultative meetings to review the CIAPs and tease out the priority micro projects and areas for VMG involvement

Step 2: Train SP consortia on micro project proposal development

Step 3: Develop micro project proposal. This will be done at the Community Level following procedure below:

a. CIGs develop their concept papers from prioritized issues in the CIAP

b. The concepts papers are thereafter presented to Sub-CTAC for vetting and selection using the following criteria:

- How well the project addresses priority community needs identified in the CIAP
- The number of people (men and women) to be reached by these benefits

- The involvement of the vulnerable or disadvantaged groups in the proposed sub/micro project
- Contribution that the CIG is willing to make to the proposed project
- Current activities of the CIG and the involvement of members in these activities
- KCSAP guidelines on micro-projects/sub-projects

a. The selected concept papers are developed into full proposals by the CIGs in consultation with the relevant sub-CTDs and SPs within two weeks

b. The developed micro-projects/sub-projects are subjected to ESMF screening

c. The Sub-CTAC chairperson will acknowledge receipt of the proposal and application form. The Sub-CTAC will ensure that the proposal submitted includes: Forwarding letter signed by CDDC chairperson, Micro-project proposal, Community micro/sub-project application form, screening check list, registration certificates and the CIG constitution.

d. The micro/sub-project proposal is submitted in both hard and soft copies.

Step 4: Review and approve micro projects. The review and approval will be conducted as follows:

a. The developed micro-projects/sub-projects proposals shall be presented to the CDDC for review and approval

b. CDDC will submit the approved proposal(s), micro-projects/sub-projects application form and list of CIG members in hard and soft copy to KCSAP with official forwarding letter

Activity 2: *Support County level investments under Window II*

Step 1: Hold consultative meetings to review the CIDP and tease out the priority sub-projects and areas for VMG involvement

Step 2: Train CTDs on sub-project proposal development

Step 3: Develop subproject proposals

Step 4: Review and approve sub-projects

Step 5: Formsavings and loans groups

Step 6: Federation and registration of S&L into SACCOs

Step 7: Develop criteria for vetting SACCOs that qualify for matching grants

Step 8: Vet SACCOs to access matching grants

Step 9: Link SACCOs to micro finance institutions and commercial institutions.

Activity 3: ***Support to Public Private Partnership's alliances with Producers under Window 111***

Step 1: Develop ToRs for public private partnerships consultancy services and share with KENAFF

Step 2: Review technical and financial proposal from KENAFF

Step 3: Engage KENAFF by signing a MOU to organize productive alliances and support federation of POs into commodity based farmer organizations

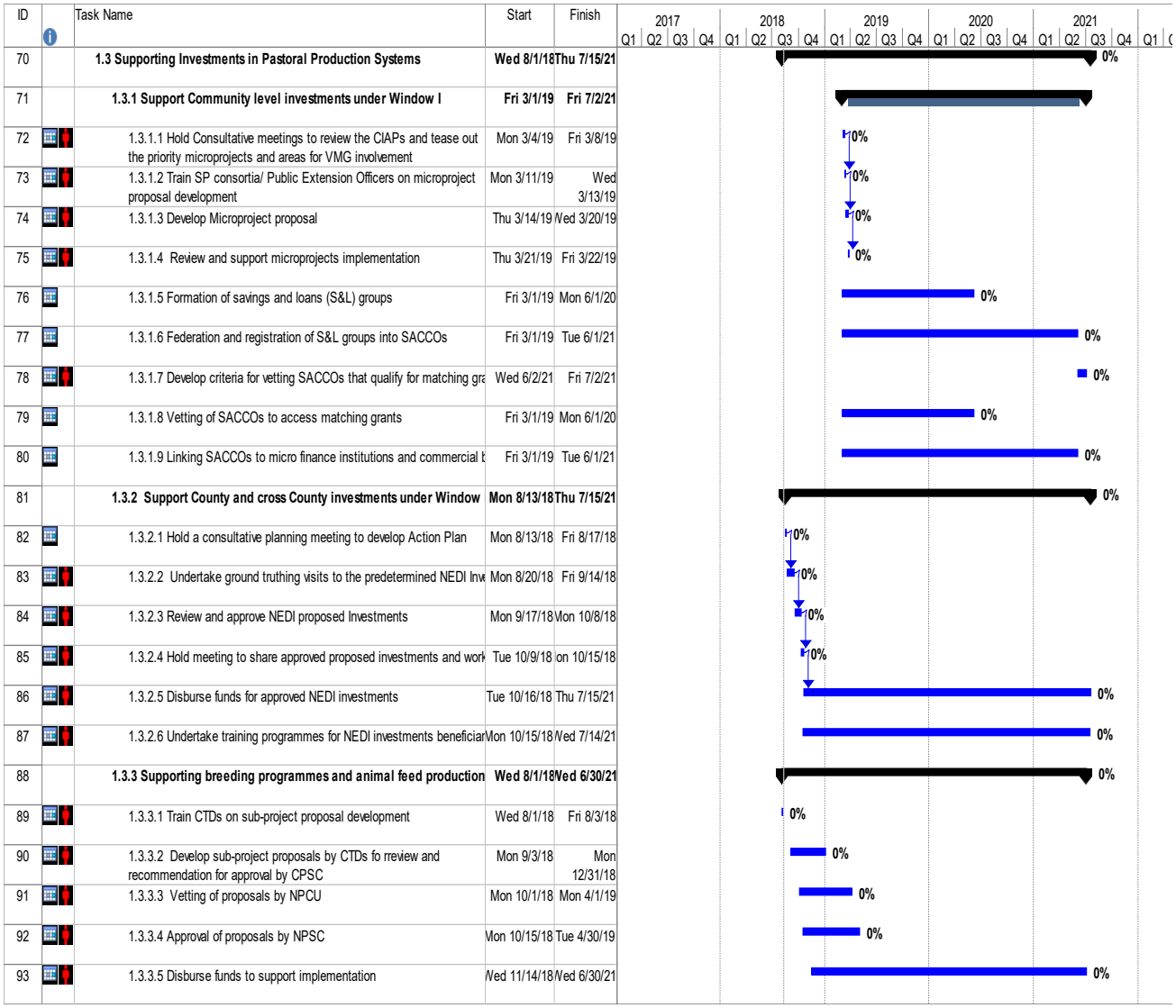
Step 4: Identify 30 POs and 10 private firms to be supported as per terms of engagement

Step 5: KENAFF to link private firms with MIGA and IFC for further funding

1.3: Supporting investments in Pastoral Production Systems

17. The objective of this sub component is to support pastoralists to implement CSA TIMPs and county level livestock sub-sector investments for Northern Eastern Development Initiative (NEDI) counties – Marsabit, Isiolo, Tana River, Garissa, Wajir, Mandera, and Lamu. The support for these investments will be provided under three windows: to support community investments/micro projects; county level investments in form of sub projects; and support producer alliances to undertake predetermined activities as provided in the Project Appraisal Document (PAD).

Figure 7: Activities supporting pastoral community investments



ID	Task Name	Start	Finish
70	**1.3 Supporting Investments in Pastoral Production Systems**	**Wed 8/1/18**	**Thu 7/15/21**
71	**1.3.1 Support Community level investments under Window I**	**Fri 3/1/19**	**Fri 7/2/21**
72	1.3.1.1 Hold Consultative meetings to review the CIAPs and tease out the priority microprojects and areas for VMG involvement	Mon 3/4/19	Fri 3/8/19
73	1.3.1.2 Train SP consortia/ Public Extension Officers on microproject proposal development	Mon 3/11/19	Wed 3/13/19
74	1.3.1.3 Develop Microproject proposal	Thu 3/14/19	Wed 3/20/19
75	1.3.1.4 Review and support microprojects implementation	Thu 3/21/19	Fri 3/22/19
76	1.3.1.5 Formation of savings and loans (S&L) groups	Fri 3/1/19	Mon 6/1/20
77	1.3.1.6 Federation and registration of S&L groups into SACCOs	Fri 3/1/19	Tue 6/1/21
78	1.3.1.7 Develop criteria for vetting SACCOs that qualify for matching gra	Wed 6/2/21	Fri 7/2/21
79	1.3.1.8 Vetting of SACCOs to access matching grants	Fri 3/1/19	Mon 6/1/20
80	1.3.1.9 Linking SACCOs to micro finance institutions and commercial b	Fri 3/1/19	Tue 6/1/21
81	**1.3.2 Support County and cross County investments under Window**	**Mon 8/13/18**	**Thu 7/15/21**
82	1.3.2.1 Hold a consultative planning meeting to develop Action Plan	Mon 8/13/18	Fri 8/17/18
83	1.3.2.2 Undertake ground truthing visits to the predetermined NEDI Inv	Mon 8/20/18	Fri 9/14/18
84	1.3.2.3 Review and approve NEDI proposed Investments	Mon 9/17/18	Mon 10/8/18
85	1.3.2.4 Hold meeting to share approved proposed investments and work	Tue 10/9/18	on 10/15/18
86	1.3.2.5 Disburse funds for approved NEDI investments	Tue 10/16/18	Thu 7/15/21
87	1.3.2.6 Undertake training programmes for NEDI investments beneficiar	Mon 10/15/18	Wed 7/14/21
88	**1.3.3 Supporting breeding programmes and animal feed production**	**Wed 8/1/18**	**Wed 6/30/21**
89	1.3.3.1 Train CTDs on sub-project proposal development	Wed 8/1/18	Fri 8/3/18
90	1.3.3.2 Develop sub-project proposals by CTDs fo rreview and recommendation for approval by CPSC	Mon 9/3/18	Mon 12/31/18
91	1.3.3.3 Vetting of proposals by NPCU	Mon 10/1/18	Mon 4/1/19
92	1.3.3.4 Approval of proposals by NPSC	Mon 10/15/18	Tue 4/30/19
93	1.3.3.5 Disburse funds to support implementation	Wed 11/14/18	Wed 6/30/21

Activity 1: ***Support Community level investments under Window I***

Step 1: Hold consultative meetings to review the CIAPs and tease out the priority micro projects and areas for VMG involvement

Step 2: Train SP consortia/ Public Extension Officers on micro project proposal development

Step 3: Micro project proposal development

Step 4: Review and support micro projects implementation

Step 5: Formation of savings and loans groups

Step 6: Federation and registration of S&L into SACCOs

Step 7: Develop criteria for vetting SACCOs that qualify for matching grants

Step 8: Vet SACCOs to access matching grants

Step 9: Linking SACCOs to micro finance institutions and commercial institutions.

Activity 2: ***Support County and cross County investments under Window 11***

Step 1: Hold a consultative planning meeting to develop Action Plan

Step 2: Undertake ground truthing visits to the predetermined NEDI Investments

Step 3: Review and approve NEDI proposed Investments

Step 4: Hold meeting to share approved proposed investments and workplan

Disburse funds for approved NEDI investments

Step 5: Undertake training programmes for NEDI investments beneficiaries

Activity 3: ***Supporting breeding programmes and animal feed production***

Step 1: Train CTDs on sub-project proposal development

Step 2: Develop sub-project proposals by CTDs for review and recommendation for approval by CPSC

Step 3: Vetting of proposals by NPCU

Step 4: Approval of proposals by NPSC

Step 5: Disburse funds to support implementation

COMPONENT TWO

COMPONENT 2: STRENGTHENING CLIMATE-SMART AGRICULTURAL RESEARCH AND SEED SYSTEMS

18. This component will support the development, validation and adoption of context-specific CSA TIMPs for up-scaling and investments in the 24 beneficiary counties in the project area. Support will also go towards building of sustainable seed production and distribution systems in order to provide a sufficient input base to agriculture producers. Further, investment under the component will strengthen the technical and institutional capacity of the Kenya Agricultural and Livestock Research Organization (KALRO) and theLivestock Training Institute (formerly GRIFTU). The Component has three subcomponents namely: (i) support CSA research and innovations, (ii) build competitive and sustainable seed systems and (iii) strengthen technical and institutional capacity to coordinate and deliver research and seed system outputs. The Component interventions will contribute directly towards achievement of Component 1 objectives. It is also linked to Component 3 through provision of requisite agronomic data for the 'Big Data' analytics for the development of agro-weather early warning and crop production advisories.

2.1: Supporting Climate-Smart Agricultural Research and Innovations

19. This sub-component will support the development, validation and dissemination of demand-driven and context-specific TIMPs to deliver CSA triple-wins through adaptive research. The TIMPs for to be disseminated will be identified and grouped into three categories namely (i) TIMPs that are ready for immediate up scaling – Category 1, (ii) TIMPs that require validation before they are disseminated for up-scaling – Category 2 and (iii) TIMPs that will be developed and validated as a result of identified research gaps during the CIDP processes, baseline survey and surveillance of emerging research issues – Category 3. All categories of the TIMPs will be up scaled and disseminated through Component 1 and supported by agro-weather early warning and crop production advisories delivered through Component 3. KALRO jointly with other NARS institution will provide the requisite data and related information for the Big Data analytics. The CPCUs and SPs driving Component 1, with the support of the County Technical Advisory Committees (CTACs) and County Project Steering Committees (CPSCs), will deliver the TIMPs and agro-weather/crop

production advisories to communities in the 24 project target counties. The timeline for implementation subcomponent activities are summarized in Figures 7 and 8.

Figure 9: Activities for strengthening climate smart agricultural research (..2)

ID	Task Name	Start	Finish
94	**2 Strengthening Climate Smart Agriculture Research and Seed Systems**	**Fri 6/15/18**	**Mon 2/7/22**
95	**2.1 Support CSA Agricultural Research and Innovation**	**Fri 6/15/18**	**Fri 1/14/22**
96	**2.1.1 Support identification and prioritization of TIMPs at County Le**	**Mon 7/2/18**	**Fri 10/26/18**
97	2.1.1.1 Desk study of relevant documents to identify TIMPs within NAR	Mon 7/2/18	Fri 7/27/18
98	2.1.1.2 Pre-Planning Meeting	Mon 7/30/18	Fri 8/3/18
99	2.1.1.3 Develop tools for data collection	Mon 8/6/18	Fri 8/17/18
100	2.1.1.4 Recruit and Training Enumerators	Mon 8/20/18	Fri 8/24/18
101	2.1.1.5 Data collection	Mon 9/3/18	Fri 9/28/18
102	2.1.1.6 Data analysis and reporting	Mon 10/8/18	Fri 10/12/18
103	2.1.1.7 Harmonization of Value chains and TIMPs	Mon 10/15/18	Fri 10/26/18
104	**2.1.2 Prepare Technical Training Materials and Modules on Releva**	**Mon 10/29/18**	**Fri 2/22/19**
105	2.1.2.1 Identify the task team to guide development of training materials	Mon 10/29/18	Fri 11/9/18
106	2.1.2.2 Prepare training materials and modules	Mon 12/10/18	Fri 2/22/19

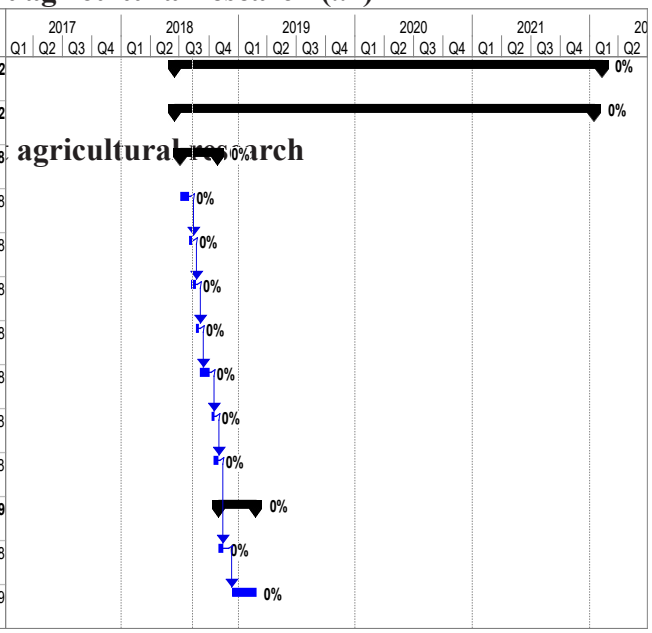


Figure 7: Activities for strengthening climate smart agricultural research

Activity 1: *Support identification and prioritization of TIMPs at County Level*

20. A team jointly made up of KALRO, KMFRI and other NARS institutions with support of the NPCU and the CPCUs will undertake the following sub-activities to identify and prioritize the TIMPs:

Step 1: Conduct a desk study of relevant documents to identify TIMPs within NARS and county level

Step 2: Hold a pre-Planning Meeting

Step 3: Develop tools for data collection

Step 4: Recruit and Training Enumerators

Step 5: Undertake data collection

Step 6: Conduct data analysis and prepare reports

Step 7: Harmonize value chains and TIMPs

Activity 2: ***Prepare Technical Training Materials and Modules on Relevant TIMPs***

21. The NPCU jointly with KALRO, KMFRI, other NARS institutions along with locally based CGIAR institutions; working with identified suitable consultants, will undertake the following activities:

Step 1: Identify a task team to guide development of training materials

Step 2: Prepare training materials and modules based on the training assessment report

Activity 3: ***Deliver technical training on TIMPs to technical departments and external service providers***

22. KALRO with support of the NPCU and the CPCUs will identify and spearhead technical team of technical experts from the NARS and the CGIAR to:

Step 1: Conduct Training of Trainers

Step 2: Backstop County and Community Training Activities

Activity 4: ***Conduct Adaptive Research to Validate TIMPs at County and Community Levels***

23. KALRO under the auspices of Research Grants Management Committee (RGMC) and with support of the NPCU and the CPCUs will undertake the process of developing and making the research call for concept notes (CNs), development of full proposals, their adjudication, and commissioning of research grant projects in three main research areas which include crops, livestock and aquaculture. In order to realize quality proposals, mainstream cross cutting issues and plan for effective M&E, the project will undertake the necessary capacity building of the consortia members through a series of workshops. Training areas will be informed by comments and recommendations of the proposal evaluation committee. The activities under each of the thematic areas are elaborated below:

CROPS INTERVENTION AREAS - In crops, the value chains include; millet, sorghum, pigeon peas, green grams, mango, banana, tomato, African leafy vegetables (ALVs) and cassava.

Step 1: Develop, validate, and promote best-fit germplasm technologies

Step 2: Validate soil/water and agronomic management practices

Step 3: Strengthen surveillance of plant pest, weeds and diseases

Step 4: Validate crop health-related CSA TIMPs

Step 5: Develop, validate and optimize post-harvest technologies

Step 6: Develop, test and promote value added products.

LIVESTOCK INTERVENTION AREAS - In livestock, the project will focus on apiculture, indigenous chicken and red meat (SHOATs) value chains.

Apiculture:

Step 1: Develop and validate climate resilient bee technologies

Step 2: Evaluate and validate drought tolerant bee forage plants

Step 3: Validate best fit bee management practices

Step 4: Develop, test and promote value added products and standards

Red meat (beef) and dairy (cattle, goat and camel) value chains

Step 1: Identify, collect, characterize, evaluate and conserve livestock genetic resources

Step 2: Validate improved drought tolerant livestock breeds

Step 3: Establish breeding units to support uptake of validated TIMPs and increased productivity

Step 4: Establishment of community based breeding programs

Step 5: Validate and promote best fit feeds and management practices for livestock

Step 6: Develop, test and promote value added products and standards

Animal health

Step 1: Strengthen existing systems (infrastructure) of pest and diseases surveillance

Step 2: Map occurrence and prevalence of pests and diseases

Step 3: Validate and promote appropriate diagnostic kits

Step 4: Develop, validate, and promote appropriate strategies and control measures for livestock pests and diseases

AQUACULTURE INTERVENTION AREAS - The research consortia in aquaculture value chain will undertake to:

Step 1: Identify, collect, characterize, evaluate and conserve indigenous fish germplasm

Step 2: Validate improved local fish germplasm matching different environments

Step 3: Step 1: Validate and promote best fit feeds and management practices for fish

Step 4: Test and validate crop-livestock-fish integration models in smallholder farming system

Step 5: Review and enhance existing systems of disease and pest surveillance

Step 6: Develop, validate, and promote appropriate strategies and control measures for fish pests and diseases

Step 7: Develop, test and promote value added products and standards

SOCIO-ECONOMIC INTERVENTIONS AREA- The research consortia in socio-economics will:

Step 1: Undertake baseline studies of various CSA technologies

Step 2: Undertake Ex ante cost benefit analyses of the TIMPs and sectoral policies

Step 3: Market research to provide information for development of CSA TIMPs and Big Data Analytics

Step 4: Undertake policy analyses on CSA for advocacy and publicity

Step 5: Establish and maintain an M&E system for CSA TIMPs for integration into project MIS

NATURAL RESOURCES INTERVENTION AREAS

Sustainable land, water and agroforestry

Step 1: Select grassroots institutions for strengthening collective action to upscale SLM practices in 24 counties

Step 2: Assess and promote land and water TIMPs in selected ASAL counties

Step 3: Assess strategies for the rehabilitation of arid and semi-arid rangelands

Step 4: Determine carbon sequestration capacity of grassland, planted forages and crops and their effects on climate variables

Step 5: Identify and validate existing types and prototypes of simple low-cost bio-digesters, and promote the most appropriate innovations

Step 6: Validate and promote efficient technologies for conversion of agricultural waste (residues) into useful forms of energy

Step 7: Evaluate and promote improved kilns and 'jikos' for the production and use of charcoal

Sustainable Bio-Energy

Step 1: Identify and validate existing types and prototypes of simple low-cost bio-digesters, and promote the most appropriate innovations

Step 2: Assess and promote efficient technologies for conversion of agricultural waste into useful forms of energy

Step 3: Identify and introduce value chains that produce biofuel/biodiesel and other sources of renewable energy

Activity 5: *Managing risk and uncertainty in CSA*

24. KALRO with support of the NPCU, will coordinate availing of relevant technical data and related information from the NARS institutions for application in crop and livestock insurance products development. This activity will be undertaken with close collaboration with a complimentary activity in component 3 in order to build synergies across project components and avoid duplication of efforts and wastage of resources. The undertaking will include:

Step 1: Synthesize CSA data and information to support products for risk management

Step 2: Compile data and information in appropriate packages for application

Activity 6: *Coordinating component activities and strengthening linkages*

25. The KALRO-KCSAP Coordination office under the auspices of the RGMC and with

support of the NPCU and CPCUs, will undertake the following:

Step 1: Conduct research reviews and set priorities

Step 2: Develop collaborative research proposals at the three designated periods of the project implementation.

Step 3: Prepare annual work plans and budgets respectively for the three project clusters at the appropriate periods during project implementation.

Step 4: Undertake routine backstopping and M&E and provide input into the project MIS.

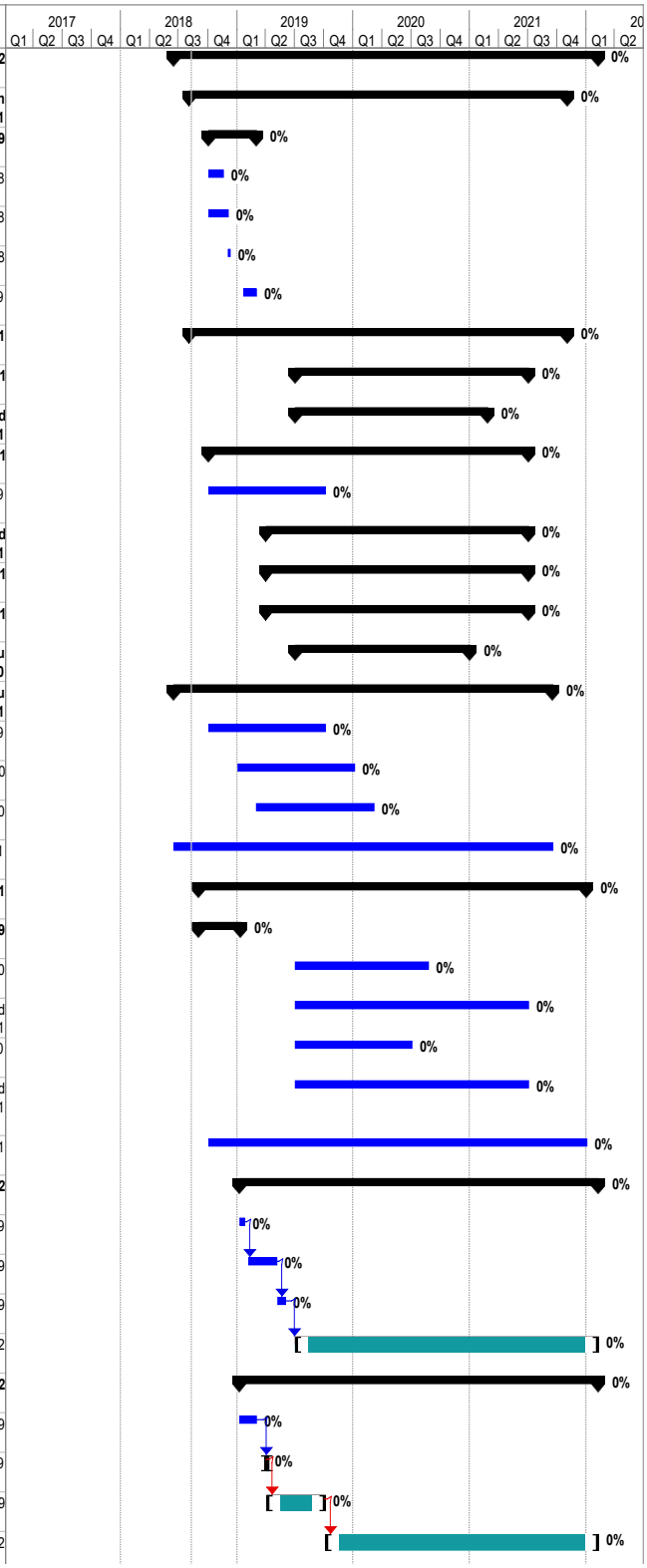
Step 5: Receive and compile research technical and financial reports at quarterly intervals and on annual basis. The office will also take part in the preparation of the mid-term review report and end of project evaluation report.

2.2: Building Competitive and Sustainable Seed Systems

26. This sub-component will support crop, livestock and aquaculture breeding programs and promote private sector and community involvement in production and distribution of commercial seed. This work will be spear-headed by KALRO, and undertaken jointly with the Kenya Plant Health Inspectorate Services (KEPHIS), the Kenya Animal Genetic Resource (KAGRC), KALRO, Consultative Group for International Agricultural Research (CGIAR) centers, Universities, and other National Agricultural Research Systems (NARS), to develop and strengthen commercially driven seed multiplication and distribution systems. Specifically, the work will focus on six major intervention areas namely (i) producing and maintaining early generation seed and promoting improved seed, especially of high value traditional crops, (ii) strengthening seed/breed/fingerlings production systems, (iii) developing and strengthening alternative delivery systems for high value traditional seeds and open pollinated varieties (OPVs), (iv) catalyzing growth of competitive seed retail networks, (v) developing and advocating for conducive legal, regulatory and institutional framework for seed, breeds and fingerlings, and (vi) supporting national Public-Private Dialogue (PPD) platforms on seeds, breeds and fingerlings.

Figure 10: Activities for building competitive and sustainable seed systems

ID	Task Name	Start	Finish
268	**2.2 Building a Competitive and Sustainable Seed Systems**	**Fri 6/15/18**	**Mon 2/7/22**
269	**2.2.1 Production and maintenance of early generation seed and promotion of newly developed seed varieties**	**Wed 8/1/18**	**Mon 11/1/21**
270	**2.2.1.1 Institutionalize licensing and germplasm transfer agreeme**	**Mon 10/1/18**	**Thu 2/28/19**
271	2.2.1.1.1 Identify relevant institutions and stakeholders	Mon 10/1/18	Fri 11/16/18
272	2.2.1.1.2 Constitute a task team and develop an instutional framewo	Mon 10/1/18	Fri 11/30/18
273	2.2.1.1.3 Hold stakeholder framework validation workshop	Mon 12/3/18	Fri 12/7/18
274	2.2.1.1.4 Enter into MOU to implement framework	Mon 1/21/19	Thu 2/28/19
275	**2.2.1.2 Develop models for germplasm maintenance and product**	**Wed 8/1/18**	**Mon 11/1/21**
282	**2.2.1.3 Develop a grant system to support early generation seeds**	**Mon 7/1/19**	**Wed 6/30/21**
287	**2.2.1.4 Initiate and maintain cryo-preservation of animal tissues, embryos, semen spawn for concomitant records**	**Mon 7/1/19**	**Wed 2/24/21**
290	**2.2.2 Strengthening Seed, Breed and Fingerlings Production Systen**	**Mon 10/1/18**	**Wed 6/30/21**
291	2.2.2.1 Undertake market studies on improved seeds and livestock and	Mon 10/1/18	Tue 10/1/19
292	**2.2.2.2 Identify and strengthen community-based seed and livestock germplasm production units**	**Mon 4/1/19**	**Wed 6/30/21**
296	**2.2.2.3 Establish a fellowship program to support training**	**Mon 4/1/19**	**Wed 6/30/21**
300	**2.2.2.4 Provide training in business development skills**	**Mon 4/1/19**	**Wed 6/30/21**
304	**2.2.2.5 Provide grants to fingerling and seed production units for the developing business plans**	**Mon 7/1/19**	**Thu 12/31/20**
309	**2.2.3 Developing and strengthening alternative delivery systems for high value traditional seeds and OPVs**	**Fri 6/15/18**	**Thu 9/16/21**
310	2.2.3.1 Identify CIGs for THV seed production	Mon 10/1/18	Tue 10/1/19
311	2.2.3.2 Train on CIGs seed production unit	Tue 1/1/19	Wed 1/1/20
312	2.2.3.3 Register and certify groups	Fri 3/1/19	Mon 3/2/20
313	2.2.3.4 Support community-based storage, cleaning, packaging and se	Fri 6/15/18	Thu 9/16/21
314	**2.2.4 Catalyze growth of competitive Seed Retail Networks**	**Mon 9/3/18**	**Fri 12/31/21**
315	**2.2.4.1 Undertake a needs assessment of input dealers**	**Mon 9/3/18**	**Fri 1/11/19**
319	2.2.4.2 Train, certify and geo-reference input dealers	Mon 7/1/19	Fri 8/21/20
320	2.2.4.3 Support identified needs to strengthen linkages between input dealers and crop/livestock/aquaculture input wholesalers	Mon 7/1/19	Wed 6/30/21
321	2.2.4.4 Establish a credit guarantee scheme to support input dealers	Mon 7/1/19	Tue 6/30/20
322	2.2.4.5 Provide institutional support to Seed Traders Association of Kenya (STAK), Plant Breeders Association of Kenya (PBAK), Aquacultural Association of Kenya (AAK) and the Kenya Livestock	Mon 7/1/19	Wed 6/30/21
323	2.2.4.6 Provide support to the development of a fisheries mobile inform	Mon 10/1/18	Fri 12/31/21
324	**2.2.5 Develop and advocate for conducive legal, regulatory and institutionary framework for seeds/breeds/fingerlings**	**Mon 1/7/19**	**Mon 2/7/22**
325	2.2.5.1 Appoint a task team and develop TOR	Mon 1/7/19	Mon 1/21/19
326	2.2.5.2 Audit of the existing legal frameworks in the seed sector	Mon 2/4/19	Fri 5/3/19
327	2.2.5.3 Hold a stakeholder validation workshop	Mon 5/6/19	Fri 5/31/19
328	2.2.5.4 Advocate for relevant legal frameworks to be consistent with the East African Community (EAC) harmonization protocols	Mon 7/1/19	Mon 2/7/22
329	**2.2.6 Support a national public private dialogues (PPD) platforms on seed/breeds/fingerlings**	**Mon 1/7/19**	**Mon 2/7/22**
330	2.2.6.1 Identify relevant stakeholders to form PPD	Mon 1/7/19	Fri 3/1/19
331	2.2.6.2 Hold stakeholders workshop to identify PPD Platforms	Tue 4/2/19	Tue 4/2/19
332	2.2.6.3 Support the formation of the PPD platforms	Wed 4/3/19	Wed 10/2/19
333	2.2.6.4 Support meetings of the platforms	Thu 10/3/19	Mon 2/7/22



Activity 1: ***Production and maintenance of early generation seed and promotion of newly developed seed varieties***

27. KALRO jointly with KMFRI and relevant NARS institutions will identify appropriate seed varieties, breeds and fingerlings of the identified project value chains for multiplication and distribution; and establish proper mechanisms for seed transfer from the breeders/parent institutions to private seed companies and dealers. Retail networks will be used for crop seed distribution; while, other channels such as AI and bull services will be used for cattle/ goat germplasm and hatcheries for indigenous chicken and fingerlings distribution. The following sub-activities will be undertaken to enhance the production and maintenance of the early generation seed:

Step 1: Institutionalize licensing and germplasm transfer agreements: - The process will involve; (i)the identification of relevant institutions and stakeholders, (ii) constitution and operationalization of a task team to undertake the development of an institutional framework to guide the process, (iii) holding of a stakeholder's validation workshop to receive, critic and endorse the developed framework, and (iv) entering into an MoU in order to provide a legal basis to implement the framework .

Step 2: Develop models for germplasm maintenance and production: - This will be achieved through; (i) developing a TOR for consultancy to assess physical and technical capacity for early seed generation, (ii) appointing a consultant and undertaking a study along with providing recommendations on germplasm models, (iii)holding stakeholders validation workshop to receive comments on the consultant's report, (iv) constituting a task team to develop appropriate models and holding stakeholders validation workshop to critic the developed models, and finally (vi) supporting the implementation of the models.

Step 3: Develop a grant system to support early generation seeds: - Steps will include; (i) inventorying early generation crop seeds, livestock breeds and fingerlings, (ii) constituting a task team to develop proposals on an intuitional framework for granting, (iii) holding stakeholders' consultative workshops to deliberate on the developed proposals, and (iv) supporting implementation of the approved proposals.

Step 4: Initiate and maintain cryo-preservation of animal tissues, embryos, semen spawn for concomitant records: - Steps will include; (i) undertaking institutional capacity needs assessment and (ii) supporting implementation of identified needs in the respective institutions.

Activity 2: ***Strengthening Seeds, Breeds and Fingerlings Production Systems***

28. KALRO will set up a team consisting of members fromKMFRI, the Kenya Plant Health Inspectorate Services (KEPHIS), the Kenya Animal Genetic Resource Center (KAGRIC), other NARS institutions including universities and locally based CGIAR centers, will undertake to develop and strengthen commercially driven seed multiplication and distribution systems. To achieve this, the team will:

Step 1: Undertake market studies on improved seeds and livestock and fish breeds

Step 2: Identify and strengthencommunity-based seed and livestock germplasm production units: - Steps will include (i) identifying appropriate CIGs and developing their funding proposals, (ii) vetting and approving the funding proposals and (iii) supporting the implementation of the approved proposals.

Step 3: Establisha fellowship program to support training: - Steps will include; (i) identification of beneficiaries of fellowship program and development of training proposals, (ii) vetting and approving proposals and (iii) supporting approved fellowship proposals.

Step 4: Provide training in business development skills - Steps will include (i) identification of beneficiaries of the training, (ii) Vetting and approving of the proposals, and (iii) supporting the approved training proposals.

Step 5: Provide grants to fingerling and seed production units for developing business plans: - Steps will include; (i) receiving applications for BP development, (ii) vetting and approving applications, (iii) identify and contracting business development experts, and (iv) developing the business plans.

Activity 3: ***Developing and strengthening alternative delivery systems for high value traditional seeds and OPVs***

29. Informal seed sector constitutes about 60-80% of sources of most planted crop seed. Despite this, there are no clear policy guidelines to support the seed production of high value traditional crops (HVTCs), open pollinated varieties (OPVs), for example, of maize and sorghum, and most vegetatively propagated plant materials including cassava and potatoes. This system aims at achieving Quality Declared Seed (QDS) standards. To achieve this, the process will require the following major steps:

Step 1: Identification of CIGs for high value traditional crops (HVTCs) seed production. This activity will be implement in cognizance of the groups formed and supported under component 1 of the project.

Step 2: Train the CIGs of the seed production unit on principles and practices of seed production.

Step 3: Register and certify groups.

Step 4: Support community-based storage, cleaning, packaging and selling/distribution systems.

Activity 4: ***Catalyze growth of competitive Seed Retail Networks***

30. Retail networks and other seed marketing organizations for marketing seed, breeds, and fingerlings to achieve climate-smart, best-fit, and location-specific TIMPs, will be strengthened by:

*S*tep 1: Undertaking a needs assessment of input dealers: - The steps will include (i) developing TORs and a tool for conducting a needs assessment, (ii) appointing a task team and conduct a needs assessment and (iii) holding a stakeholder validation workshop to receive the task teams' report.

Step 2: Train, certify and geo-reference input dealers.

Step 3: Support identified needs to strengthen linkages between input dealers and crop/livestock/ aquaculture input wholesalers

Step 4: Establish a credit guarantee scheme to support input dealers. This must be undertaken with close coordination with the complimentary activity in component 3.

Step 5: Based on the needs assessment report, provide institutional support to Seed Traders Association of Kenya (STAK), Plant Breeders Association of Kenya (PBAK), Aquaculture Association of Kenya (AAK) and the Kenya Livestock Breeders Organization (KLBO)

Step 6: Provide support to the development of a fisheries mobile information network platform.

Activity 5: ***Develop and advocate for conducive legal, regulatory and institutional framework for seeds/breeds/fingerlings:***

31. KALRO jointly with the MoALFI, NPCU, KEPHIS; and with support of relevant NARS

institutions and stakeholders, will establish a platform for the review of the Kenya laws and regulations on crop seed, breeds and fingerlings. The dialogue through the platform will establish gaps and inadequacies in the laws and regulations; and, provide recommendations on necessary reforms to pave way for wider participation of the private sector and farming communities on the seed production, distribution and accessibility. The recommendations will include those on harmonization of the seeds laws and regulations on trade within the East African Community (EAC) region. This will proceed as follows:

Step 1: A task team will be appointed and TORs developed.

Step 2: Audit of the existing legal frameworks in the seed sector and a survey on quality of seeds breeds and species in the target counties, will be undertaken.

Step 3: A stakeholder validation workshop will be held, to review and adopt the recommendations of the task team.

Step 4: Advocacy and lobby of relevant changes in the laws and legal frameworks to be consistent with the East African Community (EAC) harmonization protocols will be supported.

Activity 6: ***Support a national public private dialogues (PPD) platforms on seed/breeds/ fingerlings***

32. Access to improved seed in Kenya is limited mainly due to informal nature of the distribution system and an inadequate legal framework. To address this challenge, the project will support public private dialogue forums to …. This will entail the following procedural activities:

Step 1: Appoint a task team drawn from KALRO and other NARS institutions

Step 2: The task team will identify relevant stakeholders to form PPD

Step 3: Hold stakeholders' workshops to identify PPD Platforms

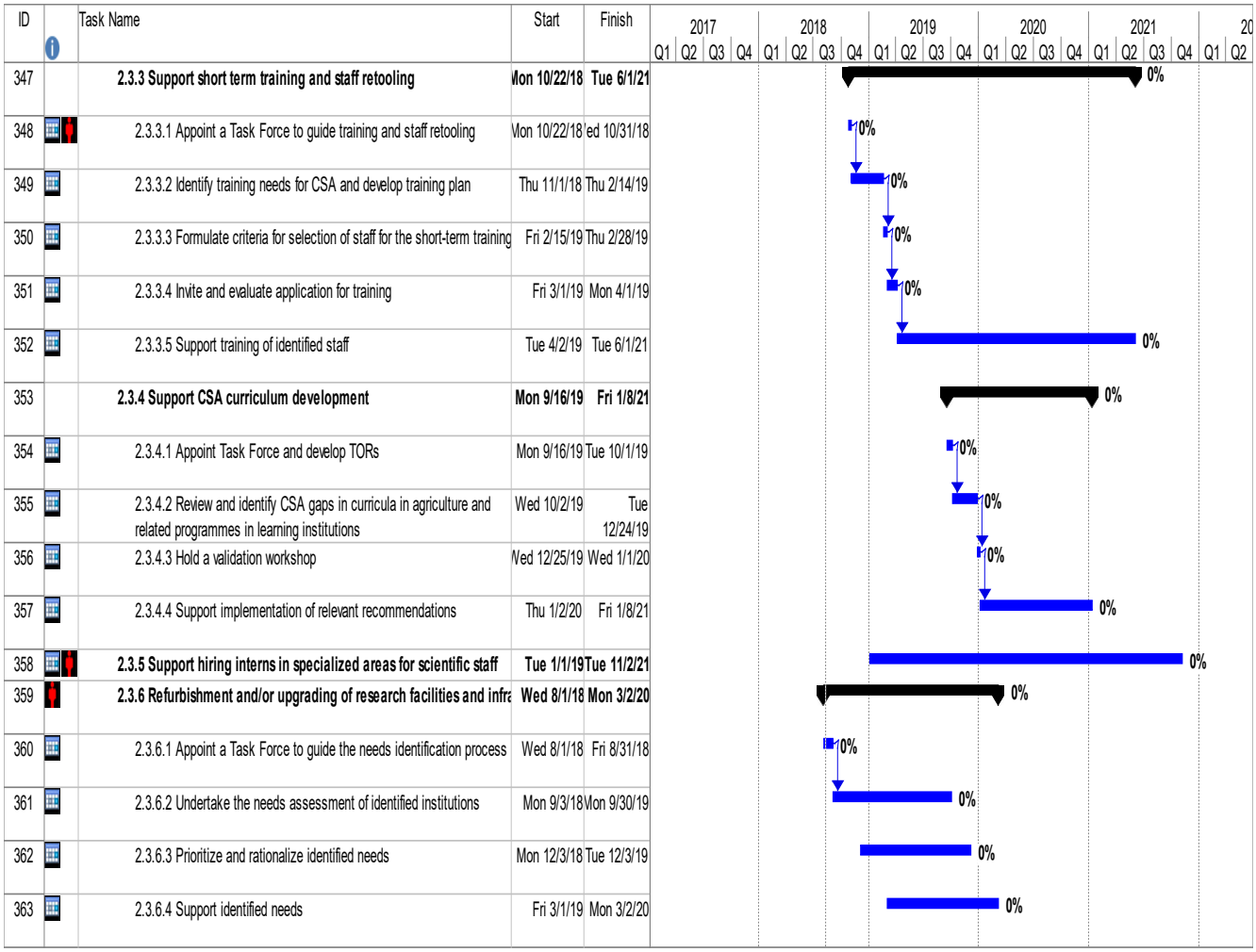
Step 4: Support the formation of the PPD platforms

Step 5: Support meetings and activities of the platforms.

2.3: Strengthening Technical and Institutional Capacity

33. In spite of the high level of trained personnel in KALRO, agricultural universities and other NARS institutions, there is lack of critical mass of staff with adequate skills to support training, research and up-scaling of CSA TIMPs. This sub-component will finance long-term professional development and technical capacity building in deficient disciplines at Masters and PhD levels; and mainstreaming CSA TIMPs in local training programmes. Key focal areas to be covered include animal and pasture breeding, bee science, animal science, aquaculture and aquatic sciences, agro forestry, socioeconomics analysis, policy research, seed science, agribusiness, and climate changes and adaptation. Key activities will be as follows:

Figure 12: Activities for strengthening technical and institutional capacity for research (..2)



ID	Task Name	Start	Finish
347	**2.3.3 Support short term training and staff retooling**	**Mon 10/22/18**	**Tue 6/1/21**
348	2.3.3.1 Appoint a Task Force to guide training and staff retooling	Mon 10/22/18	ed 10/31/18
349	2.3.3.2 Identify training needs for CSA and develop training plan	Thu 11/1/18	Thu 2/14/19
350	2.3.3.3 Formulate criteria for selection of staff for the short-term training	Fri 2/15/19	Thu 2/28/19
351	2.3.3.4 Invite and evaluate application for training	Fri 3/1/19	Mon 4/1/19
352	2.3.3.5 Support training of identified staff	Tue 4/2/19	Tue 6/1/21
353	**2.3.4 Support CSA curriculum development**	**Mon 9/16/19**	**Fri 1/8/21**
354	2.3.4.1 Appoint Task Force and develop TORs	Mon 9/16/19	Tue 10/1/19
355	2.3.4.2 Review and identify CSA gaps in curricula in agriculture and related programmes in learning institutions	Wed 10/2/19	Tue 12/24/19
356	2.3.4.3 Hold a validation workshop	Wed 12/25/19	Wed 1/1/20
357	2.3.4.4 Support implementation of relevant recommendations	Thu 1/2/20	Fri 1/8/21
358	**2.3.5 Support hiring interns in specialized areas for scientific staff**	**Tue 1/1/19**	**Tue 11/2/21**
359	**2.3.6 Refurbishment and/or upgrading of research facilities and infra**	**Wed 8/1/18**	**Mon 3/2/20**
360	2.3.6.1 Appoint a Task Force to guide the needs identification process	Wed 8/1/18	Fri 8/31/18
361	2.3.6.2 Undertake the needs assessment of identified institutions	Mon 9/3/18	Mon 9/30/19
362	2.3.6.3 Prioritize and rationalize identified needs	Mon 12/3/18	Tue 12/3/19
363	2.3.6.4 Support identified needs	Fri 3/1/19	Mon 3/2/20

Activity 1: *Develop and implement NARS coordinating framework*

Sub-activities will be as follows:

Step 1: Appoint a NARS Task Team and draft TORs for developing the coordination framework.

Step 2: Hold of Task Team planning meetings.

Step 3: Conduct stakeholders' workshops.

Step 4: Prepare report on coordination framework.

Step 5: Hold a stakeholder's validation workshop to receive and approve the coordination

framework.

Step 6: Support the implementation of proposed NARS coordination framework.

Activity 2: ***Financing of professional development training for PhD and MSc***

Sub-activities will be as follows:

Step 1: Constitute a committee to guide the application process.

Step 2: Develop, advertise call for scholarship application and develop monitoring tool for the training.

Step 3: Short list and interview applicants for both PhD and MSc

Step 4: Award the scholarships to successful applicants.

Activity 3: ***Support short term training and staff retooling***

Sub-activities will be as follows:

Step 1: Constitute a committee to guide training and staff retooling

Step 2: Identify training needs for CSA and develop a training plan

Step 3: Formulate criteria for selection of staff for the short-term training and re-tooling

Step 4: Invite and evaluate applications for training

Step 5: Support training and retooling of identified staff

Activity 4: ***Support CSA curriculum development***

Sub-activities will include:

Step 1: Appointment of a Task Force and develop TORs

Step 2: Review and identification of CSA gaps in curricula in agriculture and related programmes in learning institutions

Step 3: Holding of a validation workshop to receive task team report

Step 4: Support implementation of relevant recommendations

Step 5: Support hiring of interns in specialized areas for scientific staff.

Activity 5: ***Refurbishment and/or upgrading of research facilities and infrastructure***

Sub-activities will be as follows:

Step 1: Appoint a Task Force to guide the needs identification process and prepare a needs assessment tool

Step 2: Undertake the needs assessment of identified institutions

Step 3: Prioritize and rationalize identified needs

Step 4: Support identified priority needs

COMPONENT THREE

COMPONENT 3: SUPPORTING CLIMATE, AGRO-WEATHER, MARKET INFORMATION AND ADVISORY SERVICES

34. The objective of supporting agro-weather, market, climate and advisory services is to improve farmers, agro-pastoralists, pastoralists and fish-farmers access to timely and appropriate information for increasing agricultural productivity and building resilience to climate change risks.Towards achieving this objective, the project will invest in the development of an agro-weather forecasting and dissemination tools and marketing information system to help farmers address the challenges of climate variability and change; and enhance their resilience. This component will be implemented by: Kenya Meteorological Department (KMD), Kenya Agricultural & Livestock Research Organization (KALRO) and the Ministry of Agriculture, Livestock, Fisheries and Irrigation (MoALFI). It has three subcomponents: (i) improving agro-meteorological forecasting and monitoring; (ii) developing climate-smart, integrated agro-weather and market information system and advisories using 'big data'; and (iii) building institutional and technical capacity for agro-meteorological observation and forecasting, agricultural statistics collection and analyses, and market advisory services. By translating climate information into actionable knowledge, agro-weather tools will improve producers' long-term capacity for adopting CSA TIMPs, managing weather shocks and climate risks, and sustaining agricultural production under the changing climatic conditions.

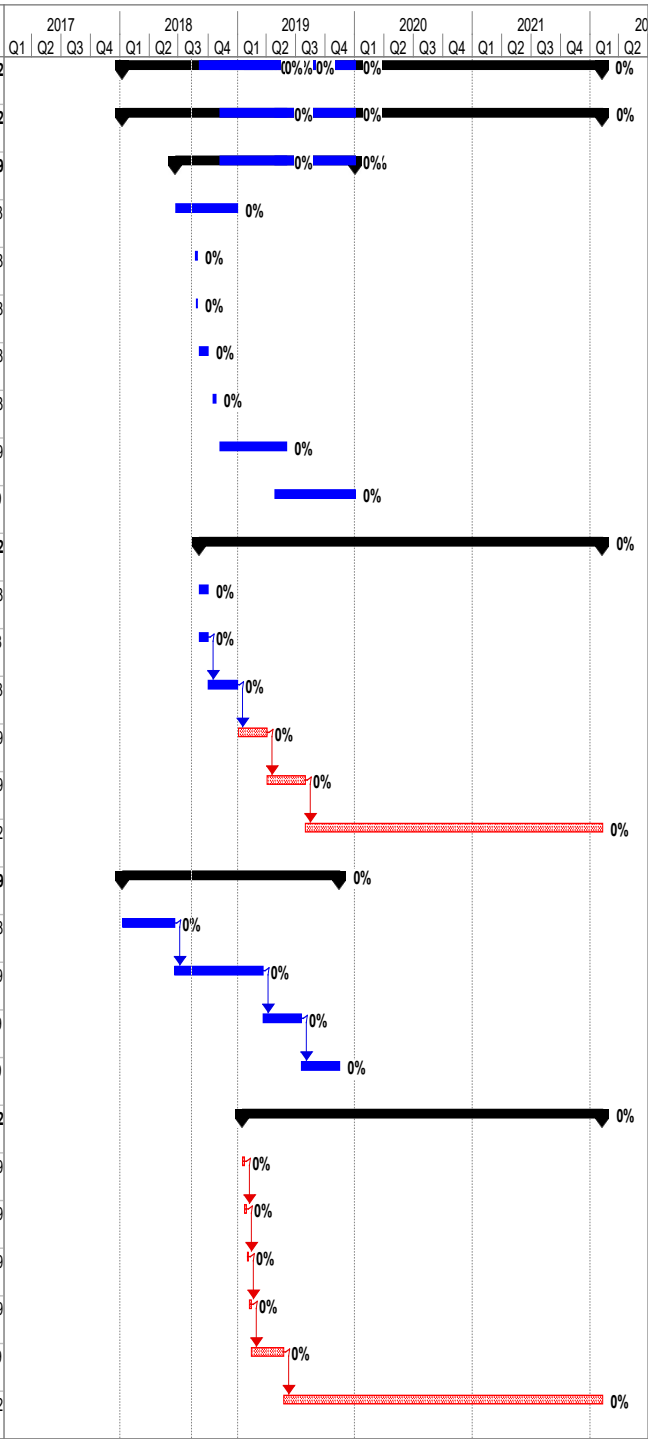
3.1: Improving Agro-meteorological weather forecasting and monitoring

35. The objective of this subcomponent is to improve agro-meteorological forecasting, disseminationand monitoring. This subcomponent will support investments to: (i) enhance agro-weather and climate information services; (ii) build core-capacity for agro-weather observation and forecasting; and (iii) develop the long-term ability to operate and maintain the agro-weather and climate information services. These activities will be coordinated by KMD Deputy Director in Charge of County Meteorological Services (DDCMS) and County Directors of Meteorological Services (CDMS) in consultation with Component 3 Leader of NPCU. In addition technical assistance for KMD officers will be sought from

expertise including UK-Met office through a collaborative approach to enhance their skills. The capacity of Technical officers at KMD and the agro- and hydro-met centers will be built on maintenance; modeling and GIS in meteorology; and forecasting. ToRs will be prepared by KMD in consultation with Component 3 Leader and procurement specialist to procure a service provider for maintenance of all service facilities; meteorological tools; equipment and instruments. For sustainability during and after the project a Memorandum of Agreement between KMD and the MoALFI on maintenance of all service facilities; meteorological tools; equipment and instruments will be signed and effected. Key activities are shown in Figure 13, 14, and 15.

Figure 13: Activities for improving agro-weather forecasting and advisory services.

ID	Task Name	Start	Finish
364	**3 Supporting Agro-weather, Market, Climate and Advisory Services**	**Mon 1/8/18**	**Mon 2/7/22**
365	**3.1 Improving Agro-meteorological Forecasting and Monitoring**	**Mon 1/8/18**	**Mon 2/7/22**
366	**3.1.1 Mapping of existing agro- and hydro-meteorological stations; a**	**Wed 6/20/18**	**ue 12/31/19**
367	3.1.1.1 Identify existing meteorological stations in the 24 project counti	Wed 6/20/18	Fri 12/28/18
368	3.1.1.2 Hold Sensitization workshop for CDMS	Mon 8/20/18	Fri 8/24/18
369	3.1.1.3 Consultative meeting of owners of meteorological stations to ide	Thu 8/23/18	Fri 8/24/18
370	3.1.1.4 Conduct a field survey to profile the existing meteorological infra	Mon 9/3/18	Fri 9/28/18
371	3.1.1.5 Conduct a dissemination workshop to share finding of profiling e	Mon 10/15/18	ed 10/24/18
372	3.1.1.6 Design and strengthen weather observational network in the project counties	Mon 11/5/18	Fri 5/31/19
373	3.1.1.7 Upgrade and modernize agro-meteorological centres (stations)	Wed 4/24/19	ue 12/31/19
374	**3.1.2 Establishing 13 new agro-met and 17 hydro-met centres**	**Mon 9/3/18**	**Mon 2/7/22**
375	3.1.2.1 Identify suitable location of the Centres and host institutions	Mon 9/3/18	Fri 9/28/18
376	3.1.2.2 Develop Specification for Agromet and Hydromet Statiions	Mon 9/3/18	Thu 9/27/18
377	3.1.2.3 Procure Agromet, Hydromet and Automatic Weather Stations	Fri 9/28/18	Fri 12/28/18
378	3.1.2.4 Supply, instal, test, training of trainers and commission 13 new	Tue 1/1/19	Fri 3/29/19
379	3.1.2.5 User training by ToTs	Mon 4/1/19	Fri 7/26/19
380	3.1.2.6 Information packaging and dissemination to the big data platfor	Mon 7/29/19	Mon 2/7/22
381	**3.1.3 Instal new automated agro-weather stations**	**Mon 1/8/18**	**ue 11/12/19**
382	3.1.3.1 Develop Specification for Agromet and Hydromet Stations	Mon 1/8/18	Fri 6/15/18
383	3.1.3.2 Procure Automatic Weather Stations	Mon 6/18/18	Mon 3/18/19
384	3.1.3.3 Instal, test, training of trainers and commission 120 new agrom	Tue 3/19/19	Tue 7/16/19
385	3.1.3.4 Train users by TOTs	Wed 7/17/19	ue 11/12/19
386	**3.1.4 Developing the Early Warning System**	**Mon 1/14/19**	**Mon 2/7/22**
387	3.1.4.1 Conduct workshop to validate Early warning system stakeholde	Mon 1/14/19	Fri 1/18/19
388	3.1.4.2 Develop ToR for thematic working group	Mon 1/21/19	Fri 1/25/19
389	3.1.4.3 Establish and identify gaps of existing EWSs	Mon 1/28/19	Fri 2/1/19
390	3.1.4.4 Develop a capacity building plan for existing EWSs	Mon 2/4/19	Fri 2/8/19
391	3.1.4.5 Develop and upgrade EWSs at KMD and NDMA	Mon 2/11/19	Tue 5/21/19
392	3.1.4.6 Information packaging and dissemination to the big data platfor	Wed 5/22/19	Mon 2/7/22



Activity 1: ***Mapping of existing public and private operated agro-meteorological and hydrological AWS.***

36. The purpose of this mapping is to assess the distribution, quantum and functionality of the existing equipment with the objective of improving them. The process will entail:

Step 1:Undertake a desk review to establish the ownership of existing privately operated agro- and hydro-meteorological stations in the 24 project counties

Step 2:Conduct a sensitization workshop for 24 CDMS from project Counties. During the meeting, a ToR and a profiling tool on the mapping of agro-meteorological andhydro meteorological weather stations will be developed.

Step 3: Hold a consultative meeting with private sector owners of agro- and hydro-meteorological stations to identify entry point and areas of collaboration

Step 4:Undertake a field survey in the 24 project counties to determine the status of existing meteorological infrastructure

Step 5:During the field survey above, the location of existing meteorological stations in the project counties will be taken and a GIS map established

Step 6: Identify gaps in existing meteorological infrastructure and documentto inform designing and strengthening of weather observational network in the project counties.

Step 7: Conduct a dissemination workshop for public and private meteorological services stakeholders to share findings of profiling exercise.

Step 8:Design and strengthen weather observational network in the project counties

Step 9: Upgrade and modernize existing 7 agro and hydro-meteorological stations through procurement of services for repair, supply, installation, testing and commissioning of equipment

Step 10:Provide data for further processing and analysis into the big data platform.

Activity 2: ***Establish13 new agro-meteorological and 17 hydro-meteorological centers in participating counties***

37. This activity aims at establishing 13 new agro-meteorological (at KALRO centers) and 17 hydro-meteorological centers in participating counties. These new facilities together with those being upgraded above (under KMD)will improve drought and flood forecasts and management. Key steps will be:

Step 1: The suitable centres and host institutions for agro- and hydro-met stations will have been identified in activity 1 above.

Step 2: A desk study will be undertaken to establish suitable location for hydro-met stations along Tana River.

Step 3Procurement of agro- and hydro-meteorological stations.

Step 4: 13 agro- and 17 hydro meteorological stations will be procured

Step 5: Training of trainers (ToTs) for the new stations will be undertaken

Step 6:The agro- and hydro- meteorological stations will be supplied, installed, tested and commissioned.

Step 7: User training will be conducted by ToTs

Step 8:Information generated by the stations will be packaged and disseminated to the big data platform

Activity 3: ***Installnew automated agro-weather stations***

38. The purpose of this activity is expand the existing meteorological network infrastructure to meet WMO standards and enhance the country's capacity for climate modelling, predictionand communication. Relevant steps include:

Step 1:Director KMD will develop specifications for acquisition of 120 new automated agro-weather stations

Step 2:120 new agro- meteorological stations will be procured

Step 3: Training of trainers (ToTs) for the new stations will be undertaken

Step 4: The agro-meteorological stations will be supplied, installed, tested and commissioned.

Step 5:User training will be conducted by ToTs

Step 6:Information generated by the stations will be packaged and disseminated to the big data platform.

Activity 4: *Developing the Early Warning System (EWS)*

39. This activity aims upgrading the existing EWS at KMD and NDMAto strengthen disaster preparedness and mitigation capabilities through improvement in short, medium and long range forecasts/monitoring information for various uses, including flood and drought warnings, disaster reduction, and weather index insurance. Implementation steps:

Step 1:A facilitated workshop will be conducted for EWS stakeholders including KMD, NDMA, MoALFI and KALRO

Step 2:The EWS key stakeholders will be validated and will constitute a Thematic Working Group (TWG)

Step 3: Terms of Reference for TWG will be developed by the facilitator

Step 4:A study will be undertaken by the facilitator to establish status of existing EWSs

Step 5: Facilitator will identify gaps in existing EWSs and develop a capacity building plan for strengthening existing EWSs

Step 6: EWS at KMD and NDMA will be developed and upgraded respectively to strengthen disaster preparedness and mitigation capabilities

Step 7:Information generated from the EWSs will be packaged and disseminated to the big data platform

3.2: Developing Integrated Weather and Market Information System

40. The objective of this subcomponent is to integrate agro-weather and market information systems. This subcomponent will finance activities related to: (i) developing "Big Data" for Climate-Smart Agriculture; (ii) strengthening the Market Information Systems; and (iii) delivering integrated weather and market advisory services. These activities will be coordinated by Component 3 leader, ICT Officer of NPCU and Head of Information and Communication Technology (ICT) at KALRO, Head of Agricultural Statistics Unit (ASU), and Market Research and Information Unit of the MoALFI.

Figure 14: Activities for developing integrated weather and market information system

ID	Task Name	Start	Finish
393	**3.2 Developing Integrated Weather and Market Information System**	**Mon 4/2/18**	**Mon 2/7/22**
394	**3.2.1 Developing 'Big Data' for CSA**	**Mon 8/27/18**	**Thu 8/1/19**
395	**3.2.1.1 Conduct situational analysis**	**Mon 8/27/18**	**ue 12/18/18**
396	3.2.1.1.1 Planning workshop to review pilot scoping study report an	Mon 8/27/18	Fri 8/31/18
397	3.2.1.1.2 Scoping study on agricultural and weather data availability	Mon 9/3/18	ed 10/10/18
398	3.2.1.1.3 Undertake a rapid agricultural information system appraisa	Thu 11/1/18	Tue 12/4/18
399	3.2.1.1.4 Document RRA study fundings and develop strategies for i	Wed 12/5/18	ue 12/11/18
400	3.2.1.1.5 Regional RRA study findings dissemination workshop	Wed 12/12/18	ue 12/18/18
401	3.2.1.2 Develop strategies for operationalization of big data for CSA	Wed 12/19/18	Thu 8/1/19
402	3.2.1.3 Obtain time series data from meteorological stations and Remote Sensing Centres	Mon 9/3/18	Tue 4/16/19

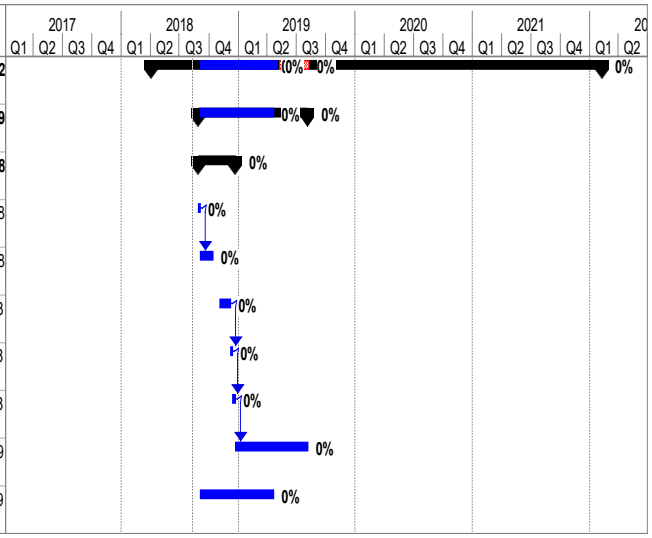


Figure 15: Activities for developing integrated weather and market information system (...2)

ID	Task Name	Start	Finish
403	**3.2.2 Segment and register Value Chain (VC) stakeholders to be involved Big Data use for CSA**	**Mon 10/1/18**	**Mon 2/7/22**
404	3.2.2.1 Conduct a stakeholder mapping and analysis to classify value c	Mon 10/1/18	ed 10/31/18
405	3.2.2.2 Review the farmers and agro-pastoralists registration tool	Thu 11/1/18	on 12/31/18
406	3.2.2.3 Conduct workshop to develop tools registration value chain stak	Tue 1/1/19	Tue 1/1/19
407	3.2.2.4 Procure consultancy to undertake value chain registration	Wed 1/2/19	Wed 1/2/19
408	3.2.2.5 Train livestock extension officers in using electronic registration	Mon 6/3/19	ue 12/31/19
409	3.2.2.6 Register value chain stakeholders and their big data requiremen	Tue 1/1/19	Mon 5/6/19
410	3.2.2.7 Review agro-climatic suitability Value Chain maps	Tue 5/7/19	Mon 8/5/19
411	3.2.2.8 Review and develop protocoals for CSAs	Tue 8/6/19	Mon 11/4/19
412	3.2.2.9 Package information for screening proposals for community pro	Tue 11/5/19	Mon 2/7/22
413	3.2.2.10 Develop customised advisories for beneficiaries	Tue 11/5/19	Mon 2/7/22
414	**3.2.3 Establish homogenous production zones**	**Mon 9/17/18**	**Thu 2/28/19**
415	**3.2.3.1 Identify Unit Area of Insurance (UAI)**	**Mon 9/17/18**	**Thu 2/28/19**
416	3.2.3.1.1 Roll out meeting for sensitisation of County leadership	Mon 9/17/18	Tue 10/2/18
417	3.2.3.1.2 Compilation of Historical data (sub counties and wards)	Mon 10/1/18	on 12/31/18
418	3.2.3.1.3 Train county staff on guidelines and creation and of Unit Areas of Insurance	Mon 10/1/18	Wed 10/31/18
419	3.2.3.1.4 Delineate UAIs in all the sub counties and wards	Mon 11/5/18	Fri 12/21/18
420	3.2.3.1.5 Conduct stakeholders validation of UAIs	Mon 12/24/18	Thu 2/28/19
421	**3.2.4 Collection of agricultural data**	**Mon 9/3/18**	**Mon 2/7/22**
422	3.2.4.1 Revise agricultural data collection guidelines	Mon 9/24/18	Fri 11/30/18
423	3.2.4.2 Recruit and train data enumerators	Thu 1/3/19	Thu 4/4/19
424	3.2.4.3 Procurement of data collection tools	Mon 2/18/19	Fri 3/29/19
425	3.2.4.4 Collect agricultural data	Mon 2/18/19	Mon 2/7/22
426	3.2.4.5 Conduct data validation workshops	Mon 2/18/19	Mon 2/7/22
427	**3.2.4.6 Digitize agricultural data**	**Mon 9/3/18**	**Tue 6/30/20**
428	3.2.4.6.1 Consultative planning worshop for data rescue	Mon 9/3/18	Fri 9/14/18
429	3.2.4.6.2 Induction and training of data rescue staff	Mon 10/15/18	Fri 11/16/18
430	3.2.4.6.3 Obtain time series data for agricultural production	Mon 12/3/18	Tue 6/30/20
431	**3.2.5 Appointing the NDVI agent**	**Tue 7/31/18**	**Wed 6/30/21**
432	3.2.5.1 Conduct a Stakeholders Sensitization Workshop	Tue 7/31/18	Thu 8/2/18
433	3.2.5.2 Conduct a workshop to review ToR fo appointing NDVI agent	Mon 9/10/18	Fri 9/21/18
434	3.2.5.3 Call for expresion of interest	Wed 1/1/20	hu 12/31/20
435	3.2.5.4 Shortlist potential agents	Wed 1/1/20	hu 12/31/20
436	3.2.5.5 Appointment of an NDVI agent	Tue 12/1/20	Wed 6/30/21
437	**3.2.6 Setting-up infrastructure for Big Data and analytics**	**Mon 4/2/18**	**Mon 2/7/22**
438	3.2.6.1 Develop specifications for Big Data system, Agro Weather Syst	Mon 4/2/18	Tue 7/31/18
439	3.2.6.2 Procure Big Data system, Agro Weather System and Call Mana	Wed 8/1/18	Wed 2/13/19
440	3.2.6.3 Deploy Big Data, Agro Weather System and Call Manager Syst	Thu 2/14/19	Wed 6/12/19
441	3.2.6.4 Undertake system user acceptance testing and training	Thu 6/13/19	Mon 9/9/19
442	3.2.6.5 Conduct technical meetings for data aggregation	Tue 9/10/19	Mon 2/7/22
443	3.2.6.6 Undertake data integration and analysis	Tue 9/10/19	Mon 2/7/22
444	3.2.6.7 Undertake periodic data validation workshops	Tue 9/10/19	Mon 2/7/22
445	3.2.6.8 Undertake Writeshops for content packaging and management	Tue 9/10/19	Mon 2/7/22
446	3.2.6.9 Develop and simulate models for Big Data	Tue 9/10/19	Mon 2/7/22
447	3.2.6.10 Disseminate information to relevant Stakeholders	Tue 9/10/19	Mon 2/7/22

Figure 16: Activities for developing integrated weather and market information system (...3)

ID	Task Name	Start	Finish
448	**3.2.7 Strengthening the existing Market Information System**	**Fri 6/15/18**	**Mon 2/7/22**
449	**3.2.7.1 Undertake a Needs Assessment and upgrade the existing**	**Mon 10/1/18**	**on 12/31/18**
450	3.2.7.1.1 Develop a survey tool	Mon 10/1/18	Mon 10/8/18
451	3.2.7.1.2 Conduct regional consultative workshops of MIS users	Mon 10/22/18	hu 11/22/18
452	3.2.7.1.3 Prepare and validate the Needs Assessment Report	Mon 12/3/18	on 12/31/18
453	**3.2.7.2 Mapping of existing markets covered in the current MoAL**	**Mon 6/18/18**	**Thu 1/31/19**
454	3.2.7.2.1 Review the number of markets covered in the existing MIS	Mon 6/18/18	Mon 7/9/18
455	3.2.7.2.2 Undertake regional consultative meetings with County lead	Mon 9/10/18	Fri 9/28/18
456	3.2.7.2.3 Conduct a field survey to determine the status of markets:	Thu 11/1/18	on 12/31/18
457	3.2.7.2.4 Update the market map to cover the 47 counties	Tue 1/1/19	Thu 1/31/19
458	**3.2.7.3 Develop MIS**	**Fri 6/15/18**	**Tue 4/30/19**
459	3.2.7.3.1 Review the current MIS	Fri 6/15/18	Fri 6/15/18
460	3.2.7.3.2 Develop ToRs for MIS and procure consultant	Mon 9/3/18	ed 10/31/18
461	3.2.7.3.3 Design and operationalize the MIS	Thu 11/1/18	Tue 4/30/19
462	**3.2.7.4 Data capture and management**	**Tue 1/1/19**	**Mon 2/7/22**
463	3.2.7.4.1 Data capture/obtain data using primary input device	Tue 1/1/19	Mon 2/7/22
464	3.2.7.4.2 Data upload onto primary server	Tue 1/1/19	Mon 2/7/22
465	3.2.7.4.3 data processing	Tue 1/1/19	Mon 2/7/22
466	3.2.7.5 Data dissemination to market information users	Tue 1/1/19	Mon 2/7/22
467	**3.2.7.6 Develop MIS sharing platform**	**Mon 1/7/19**	**Tue 4/30/19**
468	3.2.7.6.1 Hold consultative workshops for MIS service provider	Mon 1/7/19	Fri 1/18/19
469	3.2.7.6.2 Develop information sharing modalities for service providers	Mon 1/21/19	Tue 4/30/19
470	3.2.7.6.3 Formulation and signing of MoUs with MIS Service Provide	Mon 1/21/19	Tue 4/30/19
471	**3.2.7.7 Training on market data collection using open data kit (OI**	**Mon 5/6/19**	**hu 12/26/19**
472	3.2.7.7.1 Develop specifications for procurement of protective clothir	Mon 5/6/19	Mon 5/13/19
473	3.2.7.7.2 Procure protective clothing for market data enumerators	Mon 7/1/19	hu 10/31/19
474	3.2.7.7.3 2 Trainings of market enumerators	Fri 11/1/19	hu 12/12/19
475	3.2.7.7.4 2 Regional Training of CASOs and CADOs on ODK and ag	Fri 12/13/19	hu 12/26/19
476	**3.2.8 Delivering integrated weather and market advisory services**	**Mon 4/1/19**	**Mon 2/7/22**
477	**3.2.8.1 Content management, packaging and dissemination**	**Mon 4/1/19**	**Mon 2/7/22**
478	3.2.8.1.1 Undertake quarterly writeshops to package content into us	Mon 4/1/19	Mon 2/7/22
479	3.2.8.1.2 Scaling down and packaging agro-weather data and marke	Mon 4/1/19	Mon 2/7/22

Activity 1: ***Developing Big Data for Climate-smart Agriculture:***

41. The project development of Big Data system is expected to help famers, agro-pastoralists and pastoralist make informed decisions on what, when, where and how to produce. Apart from supporting the setting-up of infrastructure for "big data" analytics the activity will also entail establishing homogenous production zones to support location-specific information system and advisories. The key steps will be:

Step 1: A situational analysis will be conducted to establish data availability and identify strategies for operationalizing big data for CSA

Step 2: A 5 day planning workshop will be conducted to review situation analysis report and plan for pilot/scoping study and develop data collection tools

Step 3: A scoping study on agricultural and weather data availability will be undertaken in project counties

Step 4: County specific Focused Group (FG) discussion to undertake a rapid agricultural information system appraisal will be undertaken

Step 5: A write shop to document RRA study findings and develop strategies for implementing big data for CSA will be held

Step 6: 2 regional RRA study findings dissemination workshop will be held

Step 7: Strategies for operationalization of big data for CSA will be developed

Step 8: Obtain time series data from meteorological stations and remote sensing centres

Activity 2: ***Segmenting and registering value chain stakeholders***

42. The segmentation and registration of farmers, agro-pastoralists, pastoralists, fisherfolk and other stakeholders is expected to provide a two-way communication for collecting data on agricultural production, market information and dissemination of relevant agro-weather information and advisories. Key steps include:

Step 1:Undertake a stakeholder's mapping and analysis

Step 2:Review the farmer registration tool developed by MoALFIand the one developed by

NDMA for agro-pastoralists and pastoralists registration in implementing the Hunger Safety Net Program (HSNP)

Step 3:Conduct a workshop to develop tools for value chain stakeholder registration

Step 4:Procure a Consultancy to undertake Value Chain stakeholder registration

Step 5:Train livestock extension officers on using the electronic registration system for agro-pastoralists and pastoralists

Step 6:Recruit and train data enumerators

Step 7:Conduct value chain stakeholders' registration

Step 8:Hold a meeting between key stakeholders including ILRI and MoALFI (SDL) to establishmechanisms for data sharing including access to the homogeneous agro pastoralist and pastoralists' production zones methodology and systems data

Step 9: Review the agro-climatic suitability maps for the value chains developed by KALRO

Step 10: Develop Protocols for CSAs based on Value Chains and UAIs by KALRO

Step 11: Incorporate data from approved CIGs, VMGs and POs as well as county risk profile data into big data system to support UAIs activities in segmentation of VCs and production zones.

Step 12: Provide customised advisories to beneficiaries (Farmers, Extensionist, Service Providers, agro-pastoralists, and pastoralists) based on UAIs"

Activity 3: *Establishing homogenous production zones:*

Step 1:Identify unit areas of insurance in the semi-arid counties that will be covered by crop insurance

Step 2:Identify homogeneous agro-pastoralists and pastoralists production zones in ASALs to be used to inform livestock insurance.

Activity 4: ***Collection of agricultural data***

Step 1:Revise agricultural data collection guidelines

Step 2:Obtain time series datafor agricultural production(area, farm sizes, yields for cropslivestock and fisheries)

Step 3: Enumerators to collect seasonal agricultural data

Activity 5: ***Appointing the NDVI agent***

Step 1:Conduct a stakeholders' sensitization workshop

Step 2:Develop ToRs for appointing an NDVI agent

Step 3: Conduct a stakeholders'validation workshop

Step 4: Prepare bid documents

Step 5: Conduct an open meeting for potential NDVI agents

Step 6: Float the bids

Step 7: Evaluate the bids and recommend award

Step 8:Appoint the NDVI agent

Step 9: Backstopping and capacity building of NDVI agent

Activity 6: ***Setting-up infrastructure for Big Data and Analytics***

Step 1:Deploy Big Data, Agro Weather System and Call Manager System

Step 2:Undertake user acceptance testing and training for Big Data System, Agro Weather System and Call Manager System

Step 3:Conduct monthly and quarterly technical meetings for data aggregation

Step 4:Undertake data integration, analysis and periodic validation

Step 5:Undertake write shops for content packaging and management

Step 6:Develop models, analytics and tools for Big Data

Step 7:Disseminate information to relevant stakeholders

Activity 7: ***Strengthening existing market information system***

Step 1: Undertake a Capacity Needs Assessment (CNA) for upgrading the existing MIS

Step 2: Mapping of existing markets covered in the current Market Information System (MIS) of MoALFI

Step 3:Conduct consultative meetings with county leadership to sensitise them on the proposed MIS

Step 4:Undertake a field survey to identify gaps in data collection (type of data; availability of market enumerator)

Step 5: Expand the market GIS map to cover all 47 counties

Step 6:Review the current MIS and develop ToRs for desired system

Step7: Procure a Consultancy to strengthen, automate and expand existing MIS. The new system will capture inputs and outputs market information of crops, livestock and fisheries commodities

Step 8:Develop and operationalise the MIS including user acceptance testing and training

Step 9:Develop asharing platform for MIS service providers

Step 10:Hold consultative workshops to identify the type of market information offered by each MIS service provider

Step11: Develop information sharing modalities for service providers

Step 12:Formulate and sign MoUs with MIS Service Providers

Step 13: Training on Open Data Kit (ODK and other data collection systems/ tools

Step 14:Develop specifications for procurement of protective clothing for market data enumerators

Step 15:Procure protective clothing for market data enumerators

Step 16: Undertake trainings of market enumerators

Step 17:Undertake regional trainings of CASOs and CADOs on ODK and agribusiness

Step 18:Content management and packaging throughwriteshops to package content into usable format

Step 19:Disseminate market information to the specific demands of clients (Daily, weekly, monthly and annually)

Step 20:Hold quarterly progress review meetings on the MIS

Activity 8: *Delivering integrated weather and market advisory services*

Step 1:Develop specifications and requirements to facilitate integration of agro-weather and MIS

Step 2:Design and develop Application Programming Interphase (API) to integrate agro-weather market information system

Step 3:Undertake system user acceptance testing and training

Step 4: Conduct regional TOTs on usage of integrated agro-weather and MIS tools

Step 5:Validate, integrate and analyse data

Step 6: Hold quarterly technical meetings to review system needs and to aggregate data

Step 7:Hold writeshop for content packaging and management

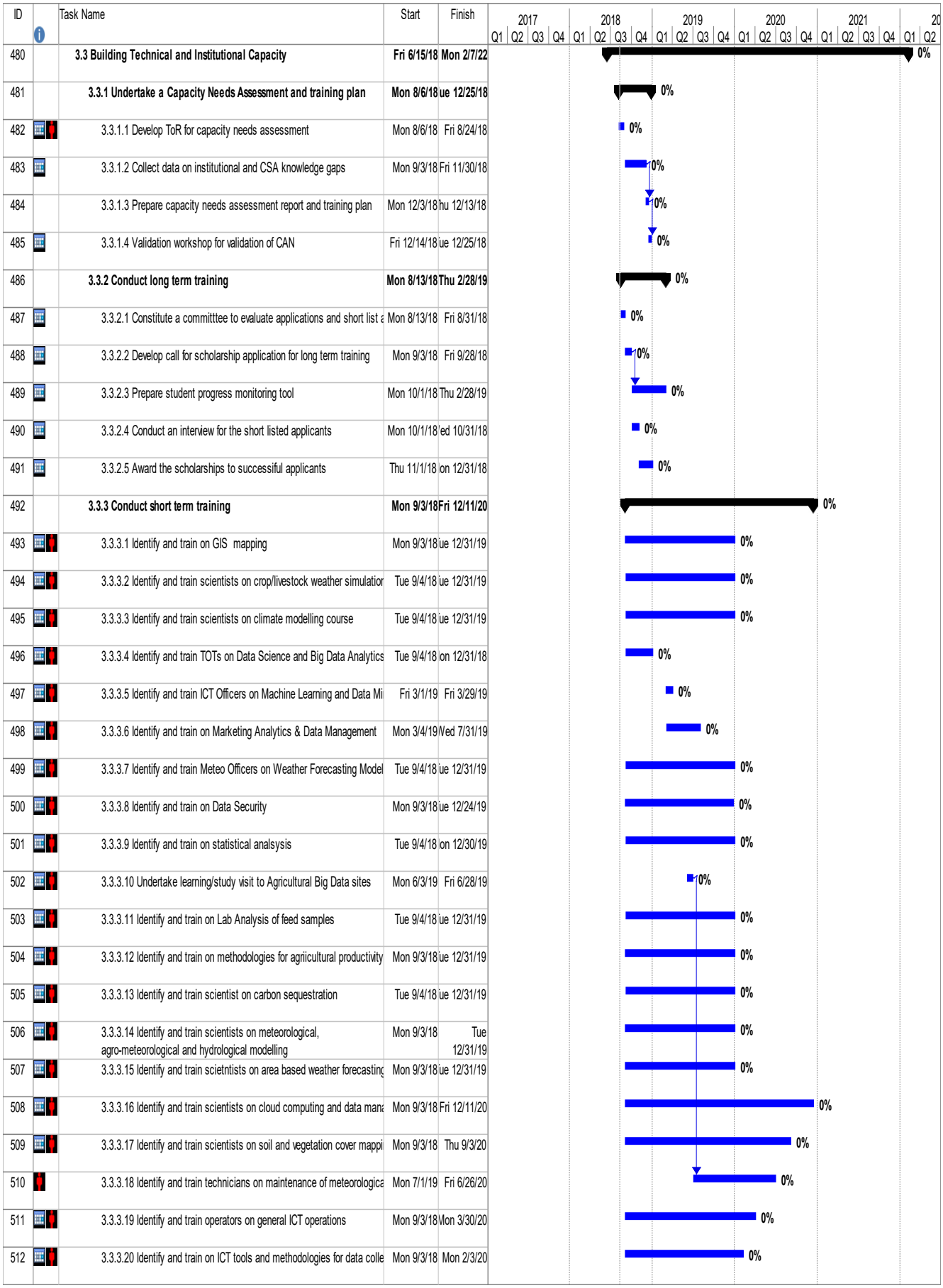
Step 8: Disseminate context and geo-referenced integrated advisories to stakeholders

3.3 Building Technical and Institutional Capacity

43. The objective of this subcomponent is to build Technical and Institutional Capacity of the participating institutions to enable them achieve the objectives Component 3. To build the technical capacity of the participating institutions the support will be provided for long-term training for about 6 PhD and 30 Masters Degrees in the areas of climate change science and modeling, disaster risk management, agro-meteorology, computer science, information systems, agricultural statistics, and business information system. Short-term training courses (including workshops, classroom trainings, demonstrations and backstopping sessions) will also be supported on CSA concepts, climate change risks, agro-weather forecast and dissemination, big data analytics, ICT; and tools and methodologies for agricultural production and market data collection, analysis and reporting, among others.

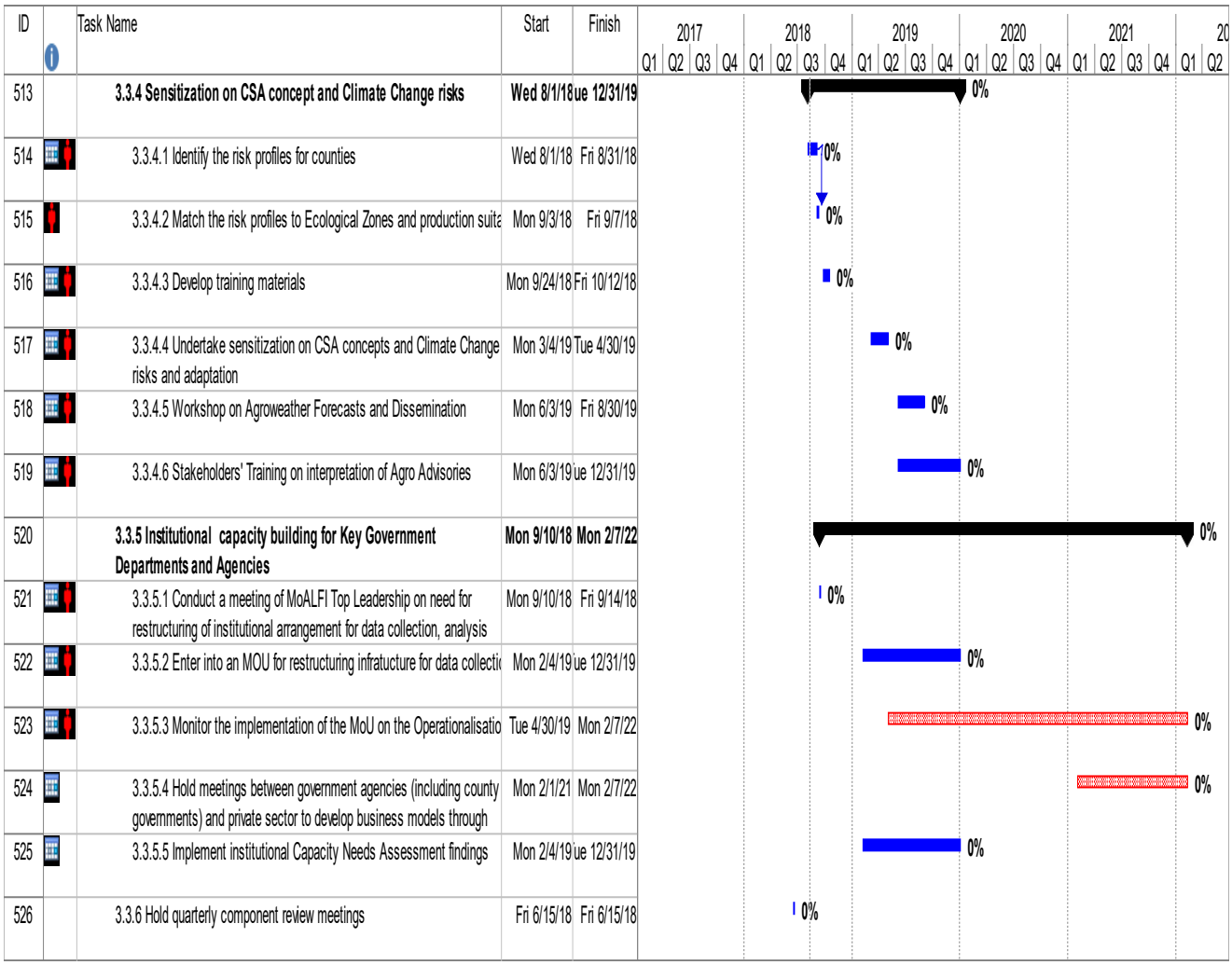
44. On institutional capacity building the project will finance relevant government agencies and departments to strengthen the legal and regulatory frameworks, establish institutional capacity for business development and Climate Information Services (CIS) and put in place systems for agricultural data collection, strengthening technical capacity of core staff, and providing appropriate ICT infrastructure for timely agricultural statistics analyses and reporting. Figures 17 and 18 shows the schedule of activities for the implementation of the sub-component.

Figure 17: Activities for building technical capacity



ID	Task Name	Start	Finish
480	**3.3 Building Technical and Institutional Capacity**	**Fri 6/15/18**	**Mon 2/7/22**
481	**3.3.1 Undertake a Capacity Needs Assessment and training plan**	**Mon 8/6/18**	**ue 12/25/18**
482	3.3.1.1 Develop ToR for capacity needs assessment	Mon 8/6/18	Fri 8/24/18
483	3.3.1.2 Collect data on institutional and CSA knowledge gaps	Mon 9/3/18	Fri 11/30/18
484	3.3.1.3 Prepare capacity needs assessment report and training plan	Mon 12/3/18	hu 12/13/18
485	3.3.1.4 Validation workshop for validation of CAN	Fri 12/14/18	ue 12/25/18
486	**3.3.2 Conduct long term training**	**Mon 8/13/18**	**Thu 2/28/19**
487	3.3.2.1 Constitute a committee to evaluate applications and short list a	Mon 8/13/18	Fri 8/31/18
488	3.3.2.2 Develop call for scholarship application for long term training	Mon 9/3/18	Fri 9/28/18
489	3.3.2.3 Prepare student progress monitoring tool	Mon 10/1/18	Thu 2/28/19
490	3.3.2.4 Conduct an interview for the short listed applicants	Mon 10/1/18	ed 10/31/18
491	3.3.2.5 Award the scholarships to successful applicants	Thu 11/1/18	on 12/31/18
492	**3.3.3 Conduct short term training**	**Mon 9/3/18**	**Fri 12/11/20**
493	3.3.3.1 Identify and train on GIS mapping	Mon 9/3/18	ue 12/31/19
494	3.3.3.2 Identify and train scientists on crop/livestock weather simulatior	Tue 9/4/18	ue 12/31/19
495	3.3.3.3 Identify and train scientists on climate modelling course	Tue 9/4/18	ue 12/31/19
496	3.3.3.4 Identify and train TOTs on Data Science and Big Data Analytics	Tue 9/4/18	on 12/31/18
497	3.3.3.5 Identify and train ICT Officers on Machine Learning and Data Mi	Fri 3/1/19	Fri 3/29/19
498	3.3.3.6 Identify and train on Marketing Analytics & Data Management	Mon 3/4/19	Wed 7/31/19
499	3.3.3.7 Identify and train Meteo Officers on Weather Forecasting Model	Tue 9/4/18	ue 12/31/19
500	3.3.3.8 Identify and train on Data Security	Mon 9/3/18	ue 12/24/19
501	3.3.3.9 Identify and train on statistical analsysis	Tue 9/4/18	on 12/30/19
502	3.3.3.10 Undertake learning/study visit to Agricultural Big Data sites	Mon 6/3/19	Fri 6/28/19
503	3.3.3.11 Identify and train on Lab Analysis of feed samples	Tue 9/4/18	ue 12/31/19
504	3.3.3.12 Identify and train on methodologies for agricultural productivity	Mon 9/3/18	ue 12/31/19
505	3.3.3.13 Identify and train scientist on carbon sequestration	Tue 9/4/18	ue 12/31/19
506	3.3.3.14 Identify and train scientists on meteorological, agro-meteorological and hydrological modelling	Mon 9/3/18	Tue 12/31/19
507	3.3.3.15 Identify and train scietntists on area based weather forecasting	Mon 9/3/18	ue 12/31/19
508	3.3.3.16 Identify and train scientists on cloud computing and data mana	Mon 9/3/18	Fri 12/11/20
509	3.3.3.17 Identify and train scientists on soil and vegetation cover mappi	Mon 9/3/18	Thu 9/3/20
510	3.3.3.18 Identify and train technicians on maintenance of meteorologica	Mon 7/1/19	Fri 6/26/20
511	3.3.3.19 Identify and train operators on general ICT operations	Mon 9/3/18	Mon 3/30/20
512	3.3.3.20 Identify and train on ICT tools and methodologies for data colle	Mon 9/3/18	Mon 2/3/20

Figure 18: Activities for building institutional capacity



ID	Task Name	Start	Finish
513	**3.3.4 Sensitization on CSA concept and Climate Change risks**	**Wed 8/1/18**	**ue 12/31/19**
514	3.3.4.1 Identify the risk profiles for counties	Wed 8/1/18	Fri 8/31/18
515	3.3.4.2 Match the risk profiles to Ecological Zones and production suita	Mon 9/3/18	Fri 9/7/18
516	3.3.4.3 Develop training materials	Mon 9/24/18	Fri 10/12/18
517	3.3.4.4 Undertake sensitization on CSA concepts and Climate Change risks and adaptation	Mon 3/4/19	Tue 4/30/19
518	3.3.4.5 Workshop on Agroweather Forecasts and Dissemination	Mon 6/3/19	Fri 8/30/19
519	3.3.4.6 Stakeholders' Training on interpretation of Agro Advisories	Mon 6/3/19	ue 12/31/19
520	**3.3.5 Institutional capacity building for Key Government Departments and Agencies**	**Mon 9/10/18**	**Mon 2/7/22**
521	3.3.5.1 Conduct a meeting of MoALFI Top Leadership on need for restructuring of institutional arrangement for data collection, analysis	Mon 9/10/18	Fri 9/14/18
522	3.3.5.2 Enter into an MOU for restructuring infratucture for data collecti	Mon 2/4/19	ue 12/31/19
523	3.3.5.3 Monitor the implementation of the MoU on the Operationalisatio	Tue 4/30/19	Mon 2/7/22
524	3.3.5.4 Hold meetings between government agencies (including county governments) and private sector to develop business models through	Mon 2/1/21	Mon 2/7/22
525	3.3.5.5 Implement institutional Capacity Needs Assessment findings	Mon 2/4/19	ue 12/31/19
526	3.3.6 Hold quarterly component review meetings	Fri 6/15/18	Fri 6/15/18

Activity 1: ***Undertake a Capacity Needs Assessment and training plan***

Step 1: Develop Terms of reference for Capacity Needs Assessment

Step 2: Collect data on institutional and CSA knowledge gaps

Step 3: Prepare a capacity needs assessment report and training plan

Step 4: Validation workshop for validation of CNA.

Activity 2: Conduct long term capacity building

Step 1: Constitute a training committee

Step 2: Undertaken a call for scholarship applications for long term training

Step 3: Prepare a student progress monitoring tool

Step 4: Evaluate applications eligible applicants shortlisted

Step 5: Interview short listed applicants

Step 6: Award scholarships to successful applicants

Activity 3: *Conduct short term capacity building*

Step 1: Identify and train staff in following areas;

- GIS mapping
- Advanced course in crop/livestock weather simulation modelling for scientists
- Climate modelling course
- Training of Trainers on Data Science and Big Data Analytics
- Machine Learning and Data Mining course
- Marketing Analytics & Data Management
- Weather Forecasting Modelling
- Data Security
- Statistical analysis (especially R and Nvivo software)
- Lab Analysis of feed samples
- Methodologies for agricultural productivity estimations
- Carbon Sequestration
- Meteorological, agro-meteorological and hydrological modelling
- Area based weather forecasting
- Cloud computing and data management
- Soil and vegetation cover mapping
- Maintenance of meteorological equipment
- ICT operations
- ICT tools and methodologies for data collection

Step 2: Identify and undertake an international study visit to Big Data in Agricultural sites

Activity 4: ***Sensitization on CSA concept and Climate Change Risks***

Step 1: undertake a desk study of countyrisk profiles

Step 2: Match the county risk profiles to ecological zones and production suitability maps developed by KALRO

Step 3: Training materials will be developed

Step 4: Undertake sensitization on CSA concepts and climate change risks and adaptation

Step 5: Conduct workshops on agro-weather forecasts and dissemination

Step 2: Undertake stakeholders training on interpretation of agro-advisories

Activity 5: ***Institutional capacity building for Key Government Departments and Agencies***

Step 1: Hold a meeting of MoALFI Top Leadership to sensitizeon institutional arrangement for data collection, analysis and management

Step 2: Enter into an MOU for restructuring infrastructure for data collection

Step 3: Monitor the implementation of the MoU on the Operationalisation of Big Data. Implementation of the MoU will be monitored through periodic interaction of implementing organizations

Step 4: Hold meetings between government agencies (including county governments) and private sector to develop business models through PPPs

Step 5: Review and implement institutional Capacity Needs Assessment findings

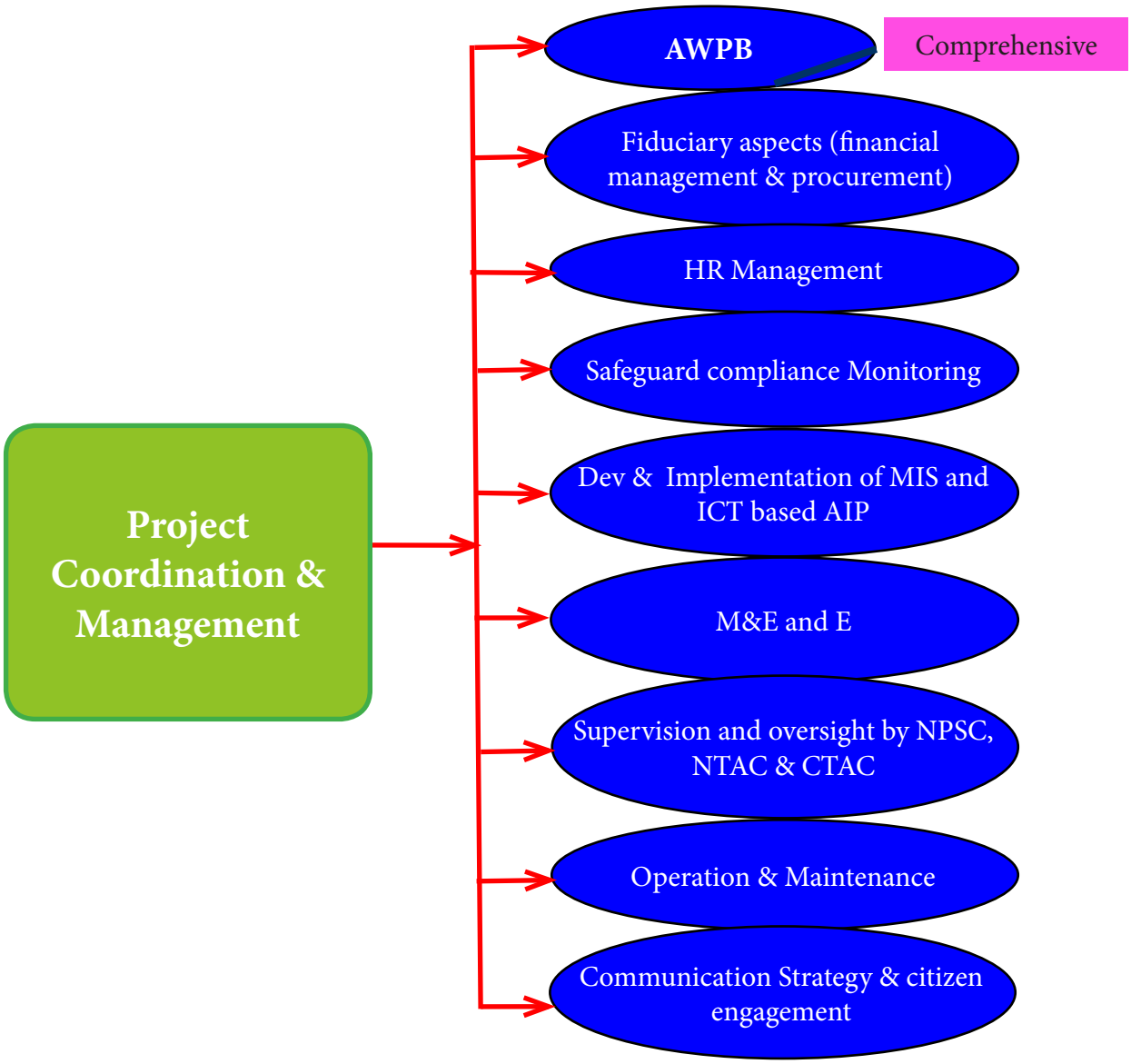
Step 6: Hold quarterly component review meetings.

COMPONENT FOUR

COMPONENT 4 - PROJECT COORDINATION AND MANAGEMENT

45. Project Coordination and Management will implement activities supporting national and county-level project coordination and management, including development of communication technology (ICT)-based platforms, monitoring and evaluation (M&E) system and impact evaluation (IE) studies as shown in figure19 below.

Figure 19: Project Coordination and Management



4.1 Project Coordination Implementation

46. The activities for Sub-component 4.1 will be implemented over the entire life of the project as shown in Figures 19and will specifically support supervision and oversight provided by NPSC, NTAC, CPSC and CTAC, salaries of the contract staff, operation and maintenance costs such as vehicle fuel and spare parts, office equipment, furniture, tools, internal and external audits, and other project administration expenses. Because KCSAP will be implemented by several autonomous agencies, it will be vital to enter into MOUs with those agencies in order to formalize transfer of responsibility for implementing relevant activities to the agencies and guide compliance with project covenants.

Figure 20: Activities for project coordination and management

Activity 1: ***Secure operational MOUs with partners***

The following MOUs will be entered into operationalize implementation of the project.

i. Step Signing of MoU between MoALFI and MEF
ii. Signing of MoU between MoALFI and KALRO
iii. Review and sign the existing MoU between KMD and former KARI (now KALRO)
iv. Formulate and sign MoU between KMD and 24 Counties that fulfill project objectives
v. Sign an MOU between MoALFI and ILRI

Activity 2: ***Establishing national project coordination and management structures.***

Step 1: Appointment of the members of the NPSC

Step 2: Appointment of members of NTAC

Step 3: Appoint of the staff of the NPCU.

Activity 3: ***Establishing county project coordination and management structures.***

Step 1: Appointment of the members of the CPSC

Step 2: Appointment of the members of CTAC

Step 3: Appointment of staff of the CPCU.

Activity 4: Establishing and mobilizing community leadership structures.

Step 1: Sensitization and awareness creation of community and county leaders on KCSAP concepts

Step 2: Meetings with opinion leaders and county authority for identification of community leaders

Step 3: Meeting with the identified leaders for in-depth elaboration of KCSAP implementation procedures and seeking consent

Step 4: Formal communication about their appointment

Step 5: Holding of inauguration meetings

Activity 5: ***Operationalizing coordination and management structures at county and national level***

This will entail developing or preparing instruments for management of the project and guidelines for operation of the management structures. These instruments and procedures are:

5.1 Preparation of implementation manuals and guidelines

Step 1: Manuals (9)- covering Financial Management, Procurement Management, M&E, Extension and Value Chain, Matching Grants, and Collaborative Research. Each of these manuals elaborate what the project will support and how that support will be provided.

Step 2: Development of the Project implementation Plan (PIP).

Step 3: Review of these manuals will be undertaken regularly to incorporate experience gained in the in the implementation of the project.

5.2 Annual work-planning and budgeting workshops

The KCSAP has a sound results-based management (RBM) based on annual work plans that are closely linked to the project's results framework (RF). The processes of annual work planning are as follows:

A. PROCESS AT COUNTY LEVEL

Step 1: Preparation of annual work plans and budgeting guideline by CPCU, implementing agents

Step 2: Preparation of draft annual work plans and budgets by CPCU

Step 3: Rationalization of the CPCU work plans and budgets

Step 4: Review and recommendation by CTAC

Step 5: Submission to CPSC for review and approval

Step 6: Finalization of the work plans and budgets

B. PROCESS AT NATIONAL LEVEL

Step 1: Preparation of annual work plans and budgeting guideline by NPCU, implementing agents

Step 2: Preparation of draft annual work plans and budgets by NPCU

Step 3: Rationalization of the NPCU annual work plans and budgets

Step 4: Consolidation of the CPCU budgets

Step 5: Submission of both county and national annual work plans and budgets to NTAC for review and recommendation

Step 6: Submission of the budgets to NPSC for review and approval

5.3 Organize meetings of steering and advisory committees at county and national level

These will be regular/scheduled quarterly meetings or ad hoc meetings to deal with specific project matters.

Activity 5: *Procurement of vehicles and necessary supplies and equipment*

Several procurements will be undertaken over the life of the project which include:

i. Procurement of vehicles and motorbikes
ii. General procurement of office supplies, furniture, utilities and services
iii. Procurement of ICT software, equipment and services
iv. Procurement of communication materials and services
v. Procure equipment for agro-weather and meteorological services

Activity 6: *Review of project investment proposals*

6.1 Micro-projects

Step 1: Call for micro-project proposals from CIGs and VGMs

Step 2: Registration of the proposals by CPCU

Step 3: Review of the proposals by CTAC

Step 4: Approval of the proposals by CPSC

6.2 Sub-projects

Step 1: Formulation of sub-project proposals by CTDs

Step 2: Registration of the proposals by CPCU

Step 3: Forward the proposals to NPCU

Step 4: List all project proposals received at NPCU

Step 5: Cross check proposals for compliance with set criteria. If proposal is not compliant, it is referred back to CPCU for rectification

Step 6: Forward compliant proposals to NTAC for review and recommendation to NPSC

Step 7: Forward the recommended proposals to NPSC for information and record

Step 8: Return approved proposals to counties for funding

4.2 Monitoring & Evaluation and Impact Evaluation

47. Sub-component 4.2 will also be implemented over the entire period of the project. It will support activities for routine M&E functions; development of an ICT-based Agricultural Information Platform (AIP) for sharing technical market-oriented and agro-weather advisory services. It will also finance the project surveys at baseline, mid-line, and end-of-project for impact evaluation as shown figure 21 below.

Figure 21: Monitoring and Impact Evaluation Framework

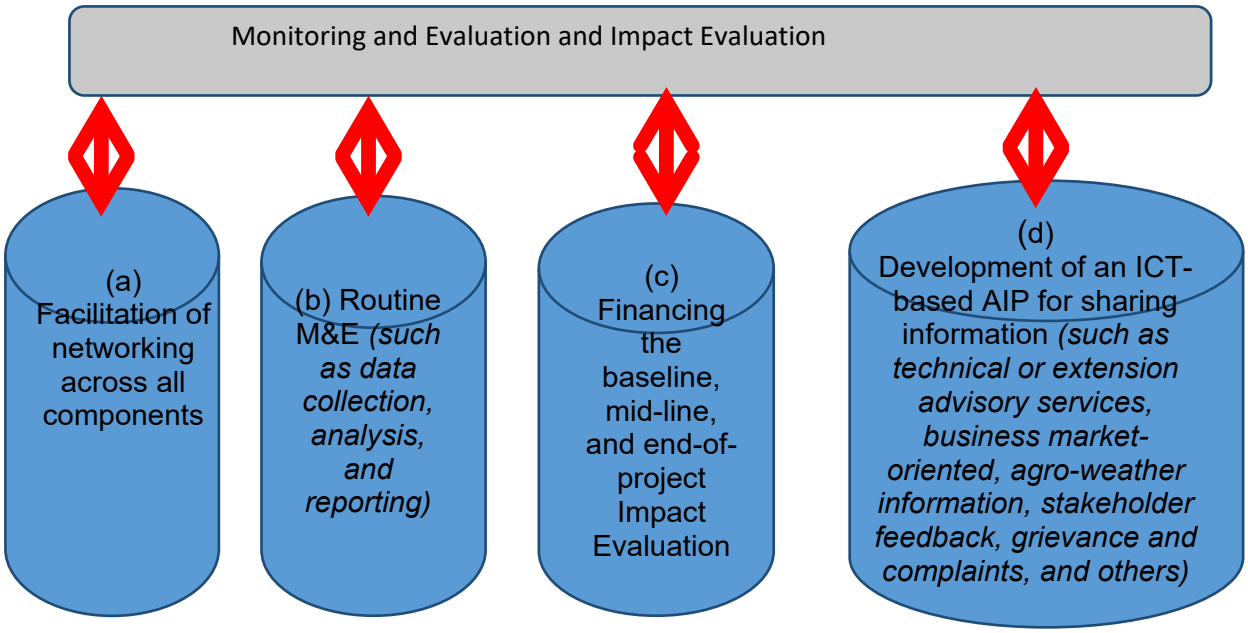


Figure 22: Activities to support of monitoring and evaluation

ID	Task Name	Start	Finish
559	**4.2 Monitoring & Evaluation and Impact Evaluation**	**Wed 2/7/18**	**Mon 2/7/22**
560	**4.2.1 Undertake Monitoring & Evaluation**	**Wed 2/7/18**	**Mon 2/7/22**
561	**4.2.1.1 Development of PMIS**	**Fri 6/1/18**	**Fri 10/12/18**
562	4.2.1.1.1 Procure technical assistant	Fri 6/1/18	Tue 7/31/18
563	4.2.1.1.2 Develop the PMIS system	Mon 7/2/18	Fri 9/28/18
564	4.2.1.1.3 Train staff on use of PMIS	Mon 10/1/18	hu 10/11/18
565	4.2.1.1.4 Generate management reports	Fri 10/12/18	Fri 10/12/18
566	4.2.1.2 Underatake M&E backstopping and feedbacks	Tue 7/17/18	Mon 1/17/22
567	4.2.1.3 Conduct semi-annual internal financial audits	Tue 1/1/19	Wed 2/2/22
568	4.2.1.4 Support annual external financial audits	Mon 9/3/18	Mon 2/7/22
569	**4.2.1.5 Support to safeguards compliance**	**Wed 2/7/18**	**Thu 12/2/21**
570	4.2.1.5.1 Conduct ESS, Gender and Social Assessment Study	Mon 7/2/18	Fri 9/28/18
571	4.2.1.5.2 ValidateESS, Gender and Social Assessment Study	Mon 10/1/18	Fri 10/5/18
572	4.2.1.5.3 Develop safeguards training modules	Mon 8/6/18	Fri 8/17/18
573	4.2.1.5.4 ToT training of CESSO on safeguards	Mon 4/16/18	Sat 4/21/18
574	4.2.1.5.5 Sensitization on ESS by ToTs	Mon 11/5/18	hu 11/11/21
575	4.2.1.5.6 Train Comp 2 & 3 implementers on E&S safeguards	Mon 2/4/19	Fri 2/8/19
576	4.2.1.5.7 Train SPs and CTDs on safeguards compliance	Mon 11/26/18	Thu 12/2/21
577	4.2.1.5.8 Screen micro and sub-projects	Mon 9/3/18	Thu 9/30/21
578	**4.2.1.5.9 Undertake site selection/assessment**	**Mon 9/3/18**	**Thu 9/30/21**
579	4.2.1.5.9.1 Site visits/review by NPCU,EIA and hydrologist exper	Mon 9/3/18	Thu 9/30/21
580	4.2.1.5.9.2 Hydrological and EIA studies	Mon 9/3/18	Thu 9/30/21

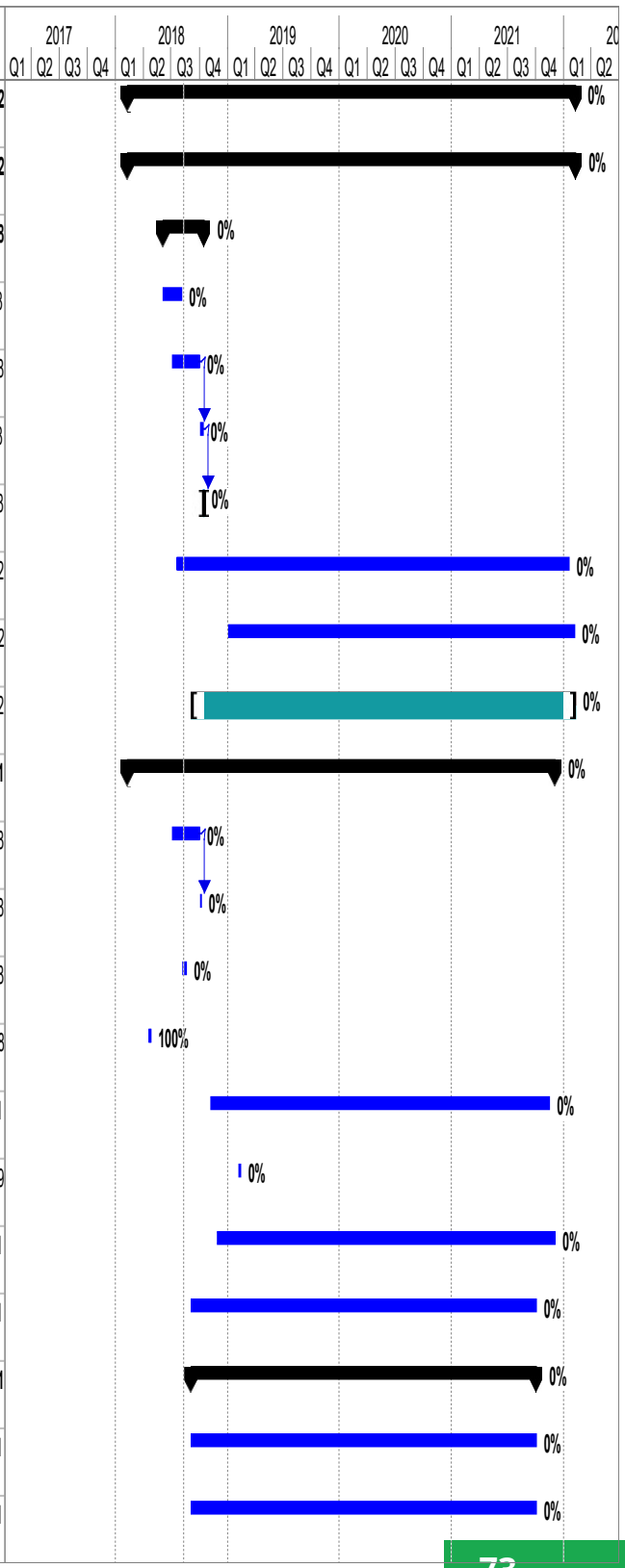
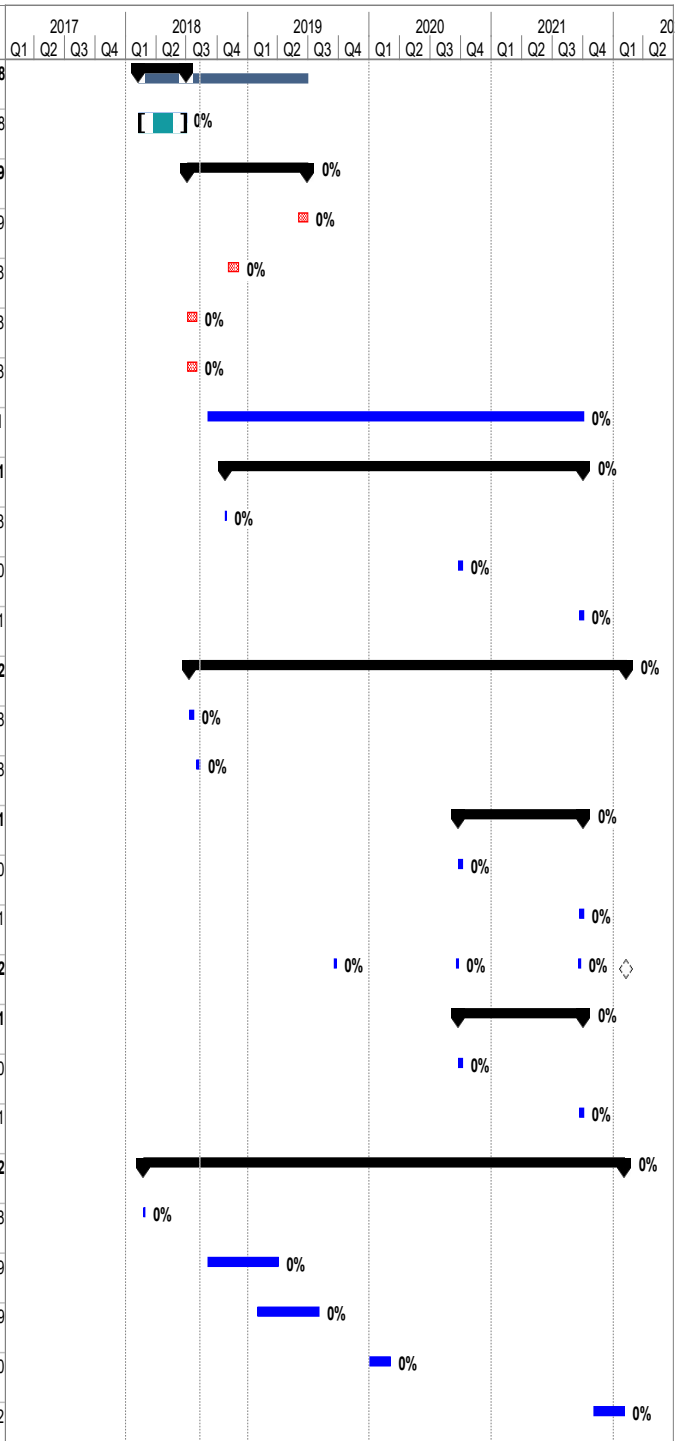


Figure 24: Activities in Support of Monitoring and Evaluation (..2)

ID	Task Name	Start	Finish
581	**4.2.1.5.10 Constitute and Operationalize GRM**	**Wed 2/7/18**	**Sat 6/30/18**
582	4.2.1.5.10.1 Develop GRM training modules	Wed 2/7/18	Sat 6/30/18
583	**4.2.1.5.10.2 Establish and train GRM committees**	**Mon 7/2/18**	**Fri 6/28/19**
584	4.2.1.5.10.2.1 Community level	Thu 5/30/19	Fri 6/28/19
585	4.2.1.5.10.2.2 Ward level	Thu 11/1/18	Fri 11/30/18
586	4.2.1.5.10.2.3 County level	Mon 7/2/18	Mon 7/30/18
587	4.2.1.5.10.2.4 National level	Mon 7/2/18	Mon 7/30/18
588	4.2.1.5.11 Undertake safeguard compliance reviews	Mon 9/3/18	Thu 9/30/21
589	**4.2.1.5.12 Conduct GHG reduction study**	**Mon 10/22/18**	**Fri 10/1/21**
590	4.2.1.5.12.1 Baseline	Mon 10/22/18	Fri 10/26/18
591	4.2.1.5.12.2 Mid-term	Mon 9/21/20	Fri 10/2/20
592	4.2.1.5.12.3 End-term	Mon 9/20/21	Fri 10/1/21
593	**4.2.1.6 Support gender mainstreaming and social inclusion**	**Mon 7/9/18**	**Mon 2/7/22**
594	4.2.1.6.1 Development of gender mainstreaming and social inclusion	Mon 7/9/18	Fri 7/20/18
595	4.2.1.6.2 ToT training on gender mainstreaming and social inclusion	Tue 7/31/18	Mon 8/6/18
596	**4.2.1.6.3 Conduct gender analysis studies to indentify impact**	**Mon 9/21/20**	**Fri 10/1/21**
597	4.2.1.6.3.1 Mid-term	Mon 9/21/20	Fri 10/2/20
598	4.2.1.6.3.2 End-term	Mon 9/20/21	Fri 10/1/21
599	**4.2.1.6.4 Annual review workshops by implementors**	**Mon 9/16/19**	**Mon 2/7/22**
604	**4.2.1.7 Undertake beneficiaries satisfaction survey on implement**	**Mon 9/21/20**	**Fri 10/1/21**
605	4.2.1.7.1 Mid-term	Mon 9/21/20	Fri 10/2/20
606	4.2.1.7.2 End-term	Mon 9/20/21	Fri 10/1/21
607	**4.2.2 Undertake Impact Evaluation**	**Wed 2/21/18**	**Mon 1/31/22**
608	4.2.2.1 Undertake impact evaluation training	Wed 2/21/18	Fri 2/23/18
609	4.2.2.2 Undertake General Baseline Survey	Mon 9/3/18	Fri 3/29/19
610	4.2.2.3 Undertake Project Beneficiary Baseline Survey	Mon 1/28/19	Wed 7/31/19
611	4.2.2.4 Undertake Mid-term Evaluation Study	Wed 1/1/20	Fri 2/28/20
612	4.2.2.5 Underatke End-term Evaluation Study	Mon 11/1/21	Mon 1/31/22



Activity 1: ***Monitoring and evaluation***

Step 1: Review and understanding of monitoring indicators and targets

Step 2: Development of Project Monitoring Information System (PMIS). This sub-activity has its own important steps as follows:

2.1 Procurement of Technical Assistant
2.2 Specification and development of PMIS including data collection tools
2.3 User acceptance testing
2.4 Training staff on use of PMIS
2.5 Generate management reports

Activity 2: ***Undertake M&E backstopping and feedbacks***

Step 1: Set up specific objectives and timelines for the exercise

Step 2: Developa checklist from the specific objectives

Step 3: Constitute the team to undertake the exercise and scope

Step 4: Organize needed logistics

Step 5: Visit the respective counties for data collection, follow up on implementation of previous M&E exercise recommendations and guidance/backstopping

Step 6: Writing of the report

Step 2: Share findings with the respective counties/feedback

Activity 3: ***Conduct semi-annual internal audits***

This is an internal exercise that focuses on the operations of internal systems and management.

Step 1: The project auditor develops a plan with clear objectives, timelines and budget for the audit exercise

Step 2: A team to carry out the exercise is constituted from the pool of auditors from the ministry and /or from the national treasury

Step 3: A checklist is then developed from the specific objectives

Step 4: The team then visits the identified counties to undertake the exercise

Step 5: Audit report is then compiled

Step 6: Audit reports are shared with audit steering sub-committee appointed from the national project steering committee

Step 7: The audit sub-committee writes a report that is shared with the national project steering committee

Step 8: The steering committee uses the report as part of the tools necessary for them to execute their mandate of oversighting the project implementation

Activity 4: *Support annual external audits*

This entails auditing by an external institution which is usually the Office of the Auditor General (OAG). It has three main features or responsibilities namely a Systems Audit, preparation of annual accounts and the actual external audit of the project as elaborated below:

A: Systems audit that focuses on processes and procedures laid down by the management to establish whether overall management system can be relied upon in producing financial statements that a present fairly the financial status of the project. The financial statements should be free of errors and material misstatements. The following processes are undertaken:

Step 1: Overall Budgeting and work-plans for the project in the year under review

Step 2: Approval for requests for payment foreach activity- proposal/ budget

Step 3: Duty allocation and segregation in approving for payment by the accounts office

Step 4: Internal check and internal control systems

Step 5: Approval by the National Project Coordinator

Step 6: Mode of payment – direct to suppliers or through imprest system

B: Preparation of final accounts as at 30th June of every year. The accounts must show the following details:

Step 1: Receipts and payments showing a surplus/deficit

Step 2: Statement of Assets and Liabilities

Step 3: cash flow statement

Step 4: Notes to the Accounts

Step 5: Comparison of Budget and expenditure

C: External audits

Step 1: The project coordinator shall submit the financial statements for the project for the financial year ended on 30 June by the 30th September of every year to the Office of the Auditor General (OAG).

Step 2: The OAG will do a final audit and present a management letter to the NPCU

Step 3: The NPCU will respond to the issues raised in the management letter

Step 4: The OAG will give an Audit certificate expressing an opinion on the financial statements on or before December 31, every year

Activity 5: *Support to safeguards compliance*

Step 1: Conduct ESS, Gender and Social Assessment Study

Step 2: ValidateESS, Gender and Social Assessment Study

Step 3: Develop safeguards training modules

Step 4: ToT training of CESSO on safeguards

Step 5: Sensitization on ESS by ToTs

Step 6: Train Comp 2 & 3 implementers on E&S safeguards

Step 7: Train SPs and CTDs on safeguards compliance

Step 8: Undertake site selection/assessment

Step 9: Screen micro and sub-projects. This sub activity entails the following steps:

9.1. Administer the environmental and social screening checklist on the proposed projects

9.2. Analyse, verify and decide on the level of impact and risk of the project

9.3. Share the report with County Environment Committee (CEC) through County Director of Environment (CDE)

9.4. If the impact is insignificant the CPCU will sanction the implementation

9.5. If the impact is significant the CPCU will advise for an ESIA project study or a full ESIA study and forward a report to the NPCU through NEMA

9.6. CPCU in consultation with the county director of environment (CDE) will sanction EIA full study where necessary

Step 10: Monitor and evaluate compliance with ESS

Activity 6: *Constitute and operationalize GRM*

Step 1: Develop GRM training modules

Step 2: Establish GRM committees at community level, ward level, county level and national level

Step 3: Trainthe committees on operational modalities

Step 4: Support meetings to manage/handle grievances

Step 5: Support reporting and feedback

Step 6: Monitorand evaluate operation GRM

Activity 7:*Conduct GHG reduction study*

Step 1: Develop TORs for GHG study

Step 2: Call for proposals to undertake GHG study

Step 3: Conduct a Baseline

Step 4: Undertake a mid-term GHG survey

Step 5: Undertake end-term GHG Study

Step 6: Share findings with stakeholders

Activity 8: ***Support to gender mainstreaming and social inclusion***

Step 1: Conduct a studyto analyse, characterize, and profile of gender issues

Step 2: Hold a stakeholder validation workshop

Step 3: Develop gender mainstreaming and social inclusion modules

Step 4: Train TOTs

Step 5: Undertake sensitization of communities, groups and stakeholders

Step 6: Implementgender mainstreaming and social inclusion strategies

Step 7: Support reporting and feedback

Step 8: Support monitoring and evaluation of gender mainstreaming

8.1. Conduct a midterm study to analyse impact

8.2. Undertake end-term study to analyse impact

Activity 9: ***Undertake a beneficiaries satisfaction survey on implementation of CSA TIMPS***

Step 1: Develop TORs and tools for the study

Step 2: Conduct the midterm satisfaction survey

Step 3: Analyse data and share the report with implementers and stakeholders

Step 4: Review the survey tools

Step 5: Conduct the end term beneficiaries' survey

Step 6: Analyse data and share report with implementers and stakeholders

Activity 10: ***Impact Evaluation***

This activity entails four main sub activities: General baseline survey, project baseline survey, Mid-term impact evaluation and end-term impact evaluation).

A. Undertake impact evaluation training

B. General Baseline Survey

Step 1: Prepare TORs for the baseline survey

Step 2: Call for technical and financial proposals by consultants

Step 3: Evaluate the technical and financial proposals by NPCU and WB office

Step 4: Negotiate and awarding of the contract

Step 5: Carrying out of the tasks

Step 6: Prepare reporting and get feedback

C. Project Beneficiary Survey

Step 1: Prepare TORs for the baseline survey

Step 2: Call for technical and financial proposals by consultants

Step 3: Evaluate the technical and financial proposals by NPCU and WB office

Step 4: Negotiate and awarding of the contract

Step 5: Carrying out the tasks

Step 6: Prepare report and get feedback

D. Undertake Mid-term Evaluation Study

Step 1: Prepare TORs for the baseline survey

Step 2: Call for technical and financial proposals by consultants

Step 3: Evaluate the technical and financial proposals by NPCU and WB office

Step 4: Negotiate and awarding of the contract

Step 5: Carrying out of the tasks

Step 6: Prepare reportand get feedback

Step 7: Share report with implementers and stakeholders

E. Undertake End-term Evaluation Study

Step 1: Prepare TORs for the baseline survey

Step 2: Call for technical and financial proposals by consultants

Step 3: Evaluate the technical and financial proposals by NPCU and WB office

Step 4: Negotiate and awarding of the contract

Step 5: Carrying out of the tasks

Step 6: Prepare reporting and get feedback

Step 7: Share report with implementers and stakeholders

KCSAP RESULTS FRAMEWORK

Results Indicators	Unit of Measure	Baseline	Cumulative Target Values (Year)					Frequency	Data Source/ Methodology	Responsibility for Data Collection	Description (indicator definition etc.)
			Yr 1	Yr 2	Yr 3	Yr 4	Yr 5				
Direct project beneficiaries,[1] share of which female. Total:[2]	Number	0	9,075	88,450	278,900	487,500	521,500	Annual	Survey, annual reports from CIGs submitted through MIS	CPCUs	The indicator captures direct project beneficiaries by investment window, who are: (i) organized in CIGs, (ii) VMGs; (iii) benefit from county level investment; (iv) are members of PPPs. Beneficiaries receive unique ID numbers to avoid double-counting.
(i) CIGs		0	8,168	49,005	98,010	163,350	163,350				
(ii) VMGs		0	908	5,445	10,890	18,150	18,150				
(iii) County investment		0	0	24,000	120,000	216,000	240,000				
(iv) PPP		0	0	10,000	50,000	90,000	100,000				
share of which female	Percentage	0	30%	30%	40%	45%	45%	Annual			

KENYA CLIMATE SMART AGRICULTURE PROJECT (KCSAP)

Capitol Hill Towers, Cathedral Road
P. O. Box 8073 00200, NAIROBI
Tel: +254 020 2715466
infor@kcsap.go.ke
Website: www.kcsap.go.ke

Project Implementation Plan Manual 2018

MINISTRY OF AGRICULTURE,
LIVESTOCK, FISHERIES AND IRRIGATION
STATE DEPARTMENT FOR CROPS DEVELOPMENT

Kenya Climate Smart Agriculture Project

MINISTRY OF AGRICULTURE,
LIVESTOCK, FISHERIES AND IRRIGATION
STATE DEPARTMENT FOR CROPS DEVELOPMENT

Kenya Climate Smart Agriculture Project

Project Implementation Plan Manual

Version 1 2018