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FOR ANIMAL RESOURCES

Live2Africa
Sustainable Development of Livestock for Livelihoods in Africa

EUROPEAN UNION

LIVE2AFRICA:
PAN-AFRICAN SUPPORT TO THE AU-IBAR FOR A SUSTAINABLE DEVELOPMENT OF LIVESTOCK FOR LIVELIHOODS IN AFRICA
PANAF/2016/379-702



NARRATIVE TECHNICAL REPORT

January 2017 – October 2018

Positioning Live2Africa to Deliver Catalytic Action:
A Framework for Coherent and Expanded Impact, Quick Wins and Flagships

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LIST OF ACRONYMS

2A2E-V	African Association of Veterinary Education Establishments
2A-VSB	African Association of Veterinary Statutory Bodies
ACP	African, Caribbean, Pacific States
AAIN	Africa Agribusiness Incubators Network
AFAO-WAWA	Association des Femmes de l'afrique de l'ouest/West African Women Association
AFQSA	African Feed Quality Standards Association
AnGR	Animal genetic resources
AU-IBAR	African Union – InterAfrican Bureau for Animal Resources
AU	African Union
AWARFA-N	African Women in Animal Resources Farming and Agribusiness Network
AYL-FAIN	African Youth in Livestock, Fisheries and Aquaculture Incubators Network
CAADP	Comprehensive Africa Agriculture Development Programme
CDC AMR	Centres for Disease Control – Antimicrobial Resistance
CDC	Centres for Disease Control
COMESA	Common Market for East and Southern Africa
CONFENABVI-AO	(Service Communication)
CVO(s)	Chief Veterinary Officer(s)
DRM	Disaster Risk Management
EAC	East African Co
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EU	European Union
FAO	Food and Agriculture Organization
FETPV	Field Epidemiology Training for Veterinarians
ICT	Information and Communication Technologies
IGAD	Intergovernmental Authority on Development
ILRI	International Livestock Research Institute
IPTT	Indicator Performance Tracking Tool
JAES	Joint Africa-European Union Strategy
LEWS	Livestock Early Warning System
LiDeSA	Livestock Development Strategy for Africa
LVC	Livestock Value Chain
M&E	Monitoring and Evaluation
MS	Member State
NEPAD	New Partnership for Africa's Development
NRM	Natural resource management
NVS	National Veterinary Services
PAFO	Pan African Farmers Organization
PPR	Peste des Petits Ruminants
PSC	Programme Steering Committee
PVS	Performance of Veterinary Services
QRA	Quality Risk Assessment
REC	Regional Economic Community
ROM	Mission Result Oriented Monitoring Mission
R-TiChubs	Regional Technology and Innovation Incubation Hubs

SADC	Southern African Development Community
SME	Small and Medium Enterprises
SMP-AH	The Standard Methods and Procedures in Animal Health Project
STSD	Surveillance of Trade Sensitive Diseases
SWOT	Strengths, Weakness, Opportunities and Threats
TAHSC	Terrestrial Animal Health
TOR	Terms of Reference
UMA	Arab Maghreb Union
USAID	United States Agency for International Development
VLSP	Veterinary Legislation Support Programme



Executive Summary

Introduction

Live2Africa, a five year, Project, with a continental scope, transmutes the Livestock Development Strategy for Africa (LiDeSA) into a program for how AU-IBAR can initiate catalytic action for livestock sector growth and transformation as envisioned in the Strategy. The Project recognizes the business opportunities that the livestock sector presents with high and rising demand for animal source foods, and a deficit in supply occasioning significant reliance across the continent on imports.

The Project aims to catalyze competitiveness, scaling up, linkage to remunerative markets including intra and inter-regional trade, inclusive growth in incomes and growth of livestock sector contribution to national GDP's. Equally cognizant of the critical role that livestock plays in livelihoods of African households especially among smallholder farmers in rural areas and pastoral and agro-pastoral whose options are limited by exacting and increasingly risk prone environments, the Live2Afirca Project will catalyze transformative actions for increased food and nutrition security, vibrant and resilient livelihoods, employment, social cohesion, security and stability.

In alignment with the LiDeSA, Live2Africa will focus on building systemic capacity. To achieve this Live2Africa will pilot new approaches to how AU-IBAR delivers: it takes a value chain approach, aiming to leverage this initial seed catalytic funding to target priority value chains that will demonstrate the desired growth and transformation as a stimulus for the broader sector. It is the first AU-IBAR Project that addresses constraints along the priority value chains from an integrated approach in investment, animal health, production, natural resource management, innovation and technology uptake, and market oriented approach for coherence and amplified impact articulated as the seven Results of the Project.

The focus of the Report

This report covers implementation of the Live2Africa Project from its inception in January 2017 to October 2018. The Project suffered a slow start due to delays incurred by a protracted recruitment process that was conducted in line with African Union rules and regulations. As the first Steering Committee of the Project underscored, this served to further increase the lapse of time since Project conceptualization and formulation (2015) and the Project commencement to four years. The livestock sector is dynamic and much has changed since 2015. AU-IBAR took a practical approach to the delays, and instituted limited activities mostly under Result 2: Animal Health Delivery Systems are Improved; which provided some leverage. However the strong recommendation from the Project Steering Committee was that the Project activities and budget be revised and refocused for relevance and coherence.

The Project Team came on board in the 3rd quarter of 2018 (June to August 2018) and immediately had a double task: that of undertaking Planning for the Project, and secondly generating proposals for re-engineering the Project in line with the recommendations from the 1st Steering Committee. In the same vein, the EU commissioned a Result Oriented Monitoring Mission (ROM Mission) to critically assess how the Project is designed and being implemented. The ROM Mission results will be informative for the process of re-engineering the Live2Africa Project. The Project Team has made proposals to make the Project more

relevant and coherent, highlighting quick wins for results that can be procured in the 4th quarter of 2018 and 1st quarter of 2019. The proposals also highlighted flagship interventions. This Report itself therefore presented a challenge since these processes are yet mid-stream.

The Report provides background to the Project, a summary of the Project, presented as the proposed Results Framework, a report of the Inception phase which includes the Project Governance and Management Structure, and the Project planning activities. The bulk of the report gives details on Project activities under each Result, and the cross-cutting issues. Most of the activities were under Result 2: Animal health delivery services improved, however there are productive, foundational and insightful achievements from the limited activities under the other Results.

Moving forward Live2Africa

Moving forward Live2Africa will undertake a number of activities to complete its planning and to commence implementation in earnest, these include:

- Refine the Live2Africa Theory of Change to define catalytic actions for driving commercialisation and transformation of the Africa's livestock sector: generate a narrative that will frame Live2Africa's actions
- Prioritization of livestock value chains to select five priority value chains that are most amendable to demonstrating the desired change
- A Stocktaking Exercise to define the niche of Live2Africa: its best comparative advantage for delivering a catalytic impact across the Results in the selected value chains in the context of other past, on-going and planned initiatives
- Sub-delegation for enhanced delivery based on the AU sub-delegation manuals
- Present a rider for endorsement by the Steering Committee to modify the Project for relevance, coherence, impact and sustainable outcomes
- Complete refining the implementation framework, budget and procurement plans
- Deliver on the quick wins that are based on activities from the original Results Framework that remain relevant

Live2Africa will also undertake a number of activities to enhance Project management, strengthen coordination, and create strong awareness and visibility of the Project

- Training of Project Team on project management methodology (Prince 2), Project management toolkit (PMP) and project management software (MS Project 2013)
- Project Charter: clarifying key stakeholders, roles, responsibilities and linkages. This will include governance structures, strategic partners, and development of an implementable and sustainable paradigm for focal persons in Member States and working with RECs
- Communication and visibility: establishment of the Live2Africa web portal and institution of a framework communication contract and
- Documentation and archiving: establishment of the Project Knowledge Management System and a project share folders

1. Project Description

1.1 Introduction

The Live2Africa Project (Pan-African Support to the AU-IBAR for the Sustainable Development of Livestock for Livelihoods in Africa) is implemented by AU-IBAR under Indirect Management through a Contribution Agreement with the European Union. This action is the first initiative of AU-IBAR towards making a continental contribution for the implementation of the twenty year (2015 – 2035) Livestock Development Strategy for Africa. The total Project budget is 20,000,000 of which 19,000,000 from EU covers main activities under the seven Results of the Project, and 1,000,000 from AUC that covers critical supervisory and coordination actions.

1.2 Project Context

Africa's Livestock Sector: An Untapped Business Opportunity for Food Security, Income Growth, Employment, Stability, Environmental Health and Resilience Building

There is a strong business case for investing in Africa's livestock sector. FAOStat data indicates that the African market for animal-source foods which was estimated at US$ 51 billion annually in 2005/07, (FAOSTAT farmgate prices) is expected to triple by 2050 to more than US$ 151 billion annually[1]. Growth in total meat consumption on the continent outpaces any other region in the world[2], with projections of 35% expansion by 2025 from the current average per capita consumption of only 11 kg per annum. Other data indicate that these are conservative figure, projecting increases in demand of two to eight fold by 2050, depending on the product[3].

This growth in demand is driven by Africa having some of the fastest growing economies in the past decade with the emergence of the middle class spurring rapid growth in the consumption of animal source foods. This is coupled with the high population growth, much of which has been urban centric. This represents a substantive growth in the continent's market with major expansion of food economies as disposable incomes grow and urban populations become increasingly dependent on markets. Already the livestock sector generates 20 to 80% of the added value in a number of African countries[4], and is the fastest growing sector in some African countries[5], with this trend of more urbanized lifestyles, it is expected that the share of livestock as a proportion of agricultural GDP in Africa will increase[6].

Profit margins are the predominant extenuating factor driving the economic viability of livestock value chains in Africa, and a determinant of the level of investment. However the importance of livestock in Africa is also intrinsically linked to core continental development objectives fundamental to sustainable livelihoods, employment, food and nutrition security, stability and environmental health. A number of features make the livestock sector attractive for addressing Africa's development needs: A significant proportion of Africa's livestock are held either by resource poor small holders with 40 to 80% of rural populations directly

[1] *FAOStat data*
[2] *OECD/FAO. 2016. Chapter 2: Agriculture in Sub-Saharan Africa: Prospects and Challenges for the Next Decade. In OECD-FAO Agricultural Outlook 2016 – 2015.*
[3] *Smith, J. 2015. African Livestock Transformation. Background Paper, Feeding Africa Conference. 21-23 October 2015. An Action Plan for African Agricultural Transformation.*
[4] *Nouala, S., U. Pica-Ciamarra, J. Ottee and A. N'guetta. 2008. Investing in Livestock to Drive Economic Growth in Africa: Rationales and Priorities. ALive Policy Note, 2008.*
[5] *Pica, G., U. Pica-Ciamarra and J. Otte. 2008. The Livestock Sector in the World Development Report 2008. Reassessing the Policy Priorities. PPLPI Research Report No. 08-07, FAO Rome.*
[6] *OECD/FAO. 2016. Chapter 2: Agriculture in Sub-Saharan Africa: Prospects and Challenges for the Next Decade. In OECD-FAO Agricultural Outlook 2016 – 2015.*

involved in the livestock sector. In dryland and semi-arid areas, where rangeland based production is the only system able to generate value in exacting environments, livestock keeping is a core livelihood activity. In these systems food security is often mediated through access to markets even while the overriding objective for livestock keeping is risk aversion, and livestock are engines for savings and social capital core to social networks and distribution of wealth. The livestock sector therefore offers an important pathway for improving livelihoods of rural households.

Growth in the leading livestock sub-sectors especially dairy and mono-gastrics (poultry and piggery) has been driven by technological advances. In other sub-sectors gains have been largely achieved through increases in herd size and expansion of land rather than through productivity gains. Poorly developed value chains exhibit numerous inefficiencies and high waste, contributing to environmental stresses. Africa's livestock sector is still poorly organized, largely informal, and value chains are not horizontally rationalized nor vertically integrated, with low public and private sector investment.

The African continent as a whole is a net importer as production has not kept pace with demand with most of the imported livestock products globally sources. Data indicates that only 5% of African food imports are related to trading within the continent[7], which expends an estimated 4 billion USD per year on livestock imports, a figure expected to grow[8]. This makes a strong business case for intra and inter-regional trade in livestock products which were among the priority commodities for promotion under the Continental Free Trade Area. The opportunity gap for increased intra and inter trade is further reinforced by the demographic structure of African countries. Twenty-eight (28) African economies have less than 10 million people, with two-thirds of the economies with less than 20 million[9]. Many African countries therefore do not have the sufficient populations to undergird the development of vibrant livestock industries. Other countries especially those in the humid and sub-humid and coastal areas and islands are densely populated but disadvantaged in relation to livestock production due to high competition for land.

Expansion of employment opportunities is a major agenda for Africa which has a predominantly youthful population. Africa has tremendous opportunity for value addition, with the livestock sector having the highest multiplier potential in Africa's agricultural sector[10]. Meat processing, production of livestock feeds, and processing of dairy products have multiplier effects of 11.7, 10.0 and 8.24 respectively[11] . This underscores the potential for significant job creation and income generation through improved value addition through investment in the livestock sector[12] . This potential for this youth dividend in the livestock sector has not been harnessed, characterized by a youth exit from livestock production and out migration from pastoral areas.

[7] *UNESC and UNECA. 2012. Report on Livestock Value Chains in Eastern and Southern Africa: A Regional Perspective. Eigth Session of the Committee on Food Security and Sustainable Development. 8 November 2012.*
[8] *UNESC and UNECA. 2012. Report on Livestock Value Chains in Eastern and Southern Africa: A Regional Perspective. Eigth Session of the Committee on Food Security and Sustainable Development. 8 November 2012.*
[9] *Nouala, S., U. Pica-Ciamarra, J. Ottee and A. N'guetta. 2008. Investing in Livestock to Drive Economic Growth in Africa: Rationales and Priorities. ALive Policy Note, 2008.*
[10] *UNESC and UNECA. 2012. Report on Livestock Value Chains in Eastern and Southern Africa: A Regional Perspective. Eigth Session of the Committee on Food Security and Sustainable Development. 8 November 2012.*
[11] *UNESC and UNECA. 2012. Report on Livestock Value Chains in Eastern and Southern Africa: A Regional Perspective. Eighth Session of the Committee on Food Security and Sustainable Development. 8 November 2012.*
[12] *UNESC and UNECA. 2012. Report on Livestock Value Chains in Eastern and Southern Africa: A Regional Perspective. Eighth Session of the Committee on Food Security and Sustainable Development. 8 November 2012.*

Despite transformational capacity, the inherent potentials of the livestock sector were not well articulated in the conceptualization of the Comprehensive African Agricultural Development Programme (CAADP) and the first decade of its implementation. This was revisited by African Union Heads of States in reviewing the performance of CAADP, in a bid to identify strategic areas to drive a more robust agenda under the Malabo Declaration for Acceleration Agricultural Transformation. Livestock was recognized as a largely untapped sector, where appropriate investment could deliver substantive results for realizing the desired accelerated transformation. This led to the development of the Livestock Development Strategy for Africa (LiDeSA).

Live2Africa, a five year, Project, with a continental scope, transmutes the LiDeSA into a program for how AU-IBAR can initiate catalytic action for livestock sector growth and transformation as envisioned in the Strategy. The Project recognizes the business opportunities that the livestock sector presents with high and rising demand for animal source foods, and a deficit in supply occasioning significant reliance on imports across the continent. The aim is catalytic action that will trigger both commercialization and an inclusive livestock sector transformation at continental scale resulting in a quantum increase in livestock production, productivity and value addition.

The Project aims to catalyze competitiveness, scaling up, linkage to remunerative markets including intra and inter-regional trade, inclusive growth in incomes and growth of livestock sector contribution to national GDP's. The Live2Africa Project is equally cognizant of the critical role that livestock plays in livelihoods of African households especially among smallholder farmers in rural areas and pastoral and agro-pastoral whose options are limited by exacting and increasingly risk prone environments. The Project will therefore also seek to catalyze transformative actions for increased food and nutrition security, vibrant and resilient livelihoods, employment, social cohesion, security and stability.

These are goals are well in line with the Joint Africa-EU Strategy (JAES) and in accord with the priority areas of Integration and Social and Economic Development of the AUC Agenda 2063, and the goals and targets set in the Malabo Declaration on Accelerated Agricultural Transformation. The Live2Africa Project is specifically designed to contribute to Level 3 of the CAADP (Comprehensive Africa Agriculture Development Programme) Result Framework 2015-2025 by strengthening systemic capacity to deliver results in Africa's livestock sector.

To achieve this Live2Africa pilots new approaches to how AU-IBAR delivers: it takes a value chain approach, aiming to leverage this initial seed catalytic funding to target priority value chains that will demonstrate the desired growth and transformation as a stimulus for the broader sector. It is the first AU-IBAR Project that addresses constraints along the priority value chains from an integrated approach in investment, animal health, production, natural resource management, innovation and technology uptake, and market oriented approach for coherence and amplified impact articulated as the seven Results of the Project.

The Project draws on a strong and well demonstrated grounding that AU-IBAR Projects have traditionally had in translating evidence based scientific and social research into development outputs for advocacy, policy and institutional reform and harmonization, and improving practice in the sector. It seeks to widen

AU-IBAR's continental convening power and influence for leading and promoting change in the livestock sector in the aspects of stimulating increased investment for both entrepreneurship and agro-business and for supporting vibrant and sustainable livelihoods and mitigating risks. This necessitates that Live2Africa broaden the scope and breadth of its strategic partnerships, deepening the technical/science (development partners) and policy and practice based (public sector/ academia, research and extension) and embracing new strategic private sector and agri-business actors and financial intermediaries, cooperatives, innovators, farmers groups in both the formal and informal sectors.

This Report covers the Live2Africa Project from its initiation in January 2017 through to end of October 2018. The Project suffered a slow start due to delays incurred by a protracted recruitment process that was conducted in line with African Union rules and regulations. As the first Steering Committee of the Project underscored, this served to further increase the lapse of time since Project conceptualization and formulation (2015) and the Project commencement to four years. The livestock sector is dynamic and much has changed since 2015. AU-IBAR took a practical approach to the delays, and instituted limited activities mostly under Result 2: Animal Health Delivery Systems are Improved; which provided some leverage. However the strong recommendation from the Project Steering Committee was that the Project activities and budget be revised and refocused for relevance and coherence.

The Project Team came on board in the 3rd quarter of 2018 (June to August 2018) and immediately had a double task: that of undertaking Planning for the Project, and secondly generating proposals for re-engineering the Project in line with the recommendations from the 1st Steering Committee. In the same vein, the EU commissioned a Result Oriented Monitoring Mission (ROM Mission) to critically assess how the Project is designed and being implemented. The ROM Mission results will be informative for the process of re-engineering the Live2Africa Project.

This Report itself therefore presented a challenge since these processes are yet mid-stream. The Project Team has made proposals to make the Project more relevant and coherent, highlighting quick wins for results that can be procured in the 4th quarter of 2018 and 1st quarter of 2019. The proposals also highlighted flagship interventions. The ROM Mission that has provided preliminary insights from an independent Consultant but the formal communication is still awaited. The Project also has on-going plans to conduct a Livestock Value Chains Prioritization to identify and build consensus on the priority value chains. This will be followed by stocktaking exercises under each result that will identify niches and interventions that will position Live2Africa for catalytic impact.

1.3 Project Summary

Project Objective:	To support transformation of the African livestock sector for enhanced contribution to environmentally sustainable, climate resilient, socio-economic development and equitable growth
Project Purpose:	To strengthen the systemic capacity of continental, regional and national Livestock Sector stakeholders for the economically, environmentally and socially sustainable transformation of the livestock sector
Partner(s):	AU-IBAR, RECs and African Union Member States

Table 1: *The revised Live2Africa Results Framework 2018 – 2021*

Impact of the Transformed Livestock Sector	Level 1: Livestock Sector's contribution to Africa's environmentally sustainable, climate resilient, socio-economic development and equitable growth						
	1. Wealth Creation		2. Food Security		3. Poverty alleviation and inclusive growth		4. Improved resilience
Changes in Africa's Livestock Sector	Level 2: Transformation of the Livestock Sector						
	Result 1: Investment in livestock value chains increased	Result 2: Animal health delivery services improved	Result 3: Animal production, productivity and ecosystem management enhanced	Result 4: Resilience of livestock production systems strengthened	Result 5: Technology adoption in the LVC increased	Result 6: Access to inputs, services, markets and value addition increased	Result 7: AU-IBAR continental capacities strengthened (Proposed: Strengthened coordination capacities at continental, regional and national levels)
Strengthening stakeholder capacities to deliver results	Level 3: Strengthening Systematic capacities of continental, regional and national Livestock Sector stakeholders for enhanced delivery of results						
	Output 1.1 Priority and promising livestock VC showcased. Output 1.2 Policies, regulatory frameworks and strategies to enhance LVC performance publicised. Output 1.3 Innovative incentives and financing mechanisms to increase investment expanded	Output 2.1 PVS competencies strengthened Output 2.2 Capacity for coordination and implementation of integrated quality animal health services strengthened	Output 3.1 Genetic potential and performance of animals improved and breeding strategies supported Output 3.2 Sustainable best practice in Natural Resource Management (NRM) developed and adopted Output 3.3 Access to quality feed and water enhanced	Output 4.1 Livestock Early Warning Systems (LEWS) strengthened Output 4.2 Disaster Risk Management (DRM) enhanced.	Output 5.1: Adoption of modern technology to enhance production, productivity, value addition and competitiveness publicised Output 5.2 Animal resources knowledge enhanced	Output 6.1: Enhance access to formal marketing channels for selected livestock value chains Output 6.2: Enhance Value addition and reduce post- harvest losses Output 6.3: Streamline linkages among input and value addition actors to shorten value chains and enhance fair trade incentives Output 6.4: Access to quality affordable inputs and services expanded	Output 7.1 Better compliance in the institution related to Internal audit, Procurement and certifying rules promoted Output 7.2 The AU-IBAR capacities in ICT strengthened Output 7.3 Capacities for project coordination strengthened

The Project revised Results Framework 2018-2021 (Table 1), is based on the proposed revision to the structure of the Live2Project as recommended by the 1st Meeting of the Project Steering Committee, and yet to be endorsed for implementation. The super structure of the Project i.e., the Results, was maintained with a modification only proposed for Result 7 to articulate a more relevant scope for the capacities needed to coordinate the transformation of the livestock sector. The main modifications were effected in the sub-activities or tasks.

2. Detailed Report of Project Management Activities January 2017 – October 2018

2.1 The Project Inception Phase

2.1.1 The Launch of Live2Africa Project

The Contribution Agreement for the Live2Africa Project was signed on 13th December 2016, and the Project commenced in January 2018. The project was officially launched by H.E. Albert Muchanga, Commissioner for Trade and Industry, African Union Commission in Addis Ababa Ethiopia on the 28th July 2017. The launch was at a high level continental Workshop attended by two hundred and thirty stakeholders from across the African continent. Participants included Permanent Secretaries, Parliamentarians, Directors of Veterinary Services, among other key livestock stakeholders.

2.1.2 Project Governance and Management

2.1.2.1 Project Governance and Management Structure

The proposed structure for the governance of the Live2Africa Project will consist of :

- The Programme Steering Committee, as the apex structure with oversight functions, headed by the Commissioner for Rural Economy and Agriculture of the African Union Commission.
- The Project Technical Team, which will be the main stakeholder platform for conveninv experts and key stakeholders to provide input for relevance, technical soundness and enhancing implementation rigor with partners
- The Project Management Team, which will comprise of the Director and Heads of Unit of AU-IBAR, with options for participation of AU-IBAR Programme and Support Staff as warranted, will provide in-house technical and management guidance, and ensure program coherence between Live2Africa and the wider AU-IBAR programming in alignment with the AU-IBAR Strategic Plan.
- The Project Team, which comprises of the Project Officer, Project Experts and Key Support Staff will be responsible for day to day running of the Project and for generating. The Project Team will be under the direct supervision of the Project Coordinator/ Head of Animal Health Unit.

The Terms of Reference (TOR's) of the Project Steering Committee were approved at the 1st Meeting of the Steering Committee (Table 2). TORs for all the other structures will be presented for approval at the next SC Meeting.

Table 2: *Approved Terms of Reference and Composition of the Live2Africa Programme Steering Committee*

Mandate and Function	Composition and Membership
Mandate: • Provide strategic guidance for the programme and oversees coherent implementation. **Functions** • Ensure alignment with international standards, guidelines and recommendations and continental strategic frameworks including the CAADP process, the Livestock Development Strategy for Africa and the AU-IBAR Strategic Plan 2014-2917 • Monitor the programme progress and execution • Identify achievements and constraints and formulate recommendations for change if necessary • Provide a platform for discussion and information sharing for stakeholders in the seven project results areas. • Facilitate contacts and cooperation with relevant partners • Review work plans and budgets • Review programme progress reports • Approve changes that need to be made to the programme financing agreement	**Full status:** 1. The Commissioner for Rural Economy and Agriculture of the African Union Commission. Chairperson 2. Representative of ACP Secretariat 3. Representative of OIE 4. Representative of FAO 5. Representative of ILRI 6. Representative of COMESA 7. Representative of ECCAS 8. Representative of ECOWAS 9. Representative of EAC 10. Representative of IGAD 11. Representative of SADC 12. Representative of UMA 13. Representative of Pan African Farmers Organizations (PAFO) 14. Representative of a livestock NGO with a wide continental coverage 15. Representative of CONFENABVI-AO 16. Representative of ESADA 17. Representatives of tertiary institutions 18. Representative of Youths 19. Representative of Women 20. Representative of Representative of animal welfare organizations **b) Observer status** 1. Representative of the European Commission 2. Representative of WHO 3. Representative of AfDB 4. Representative of IDB 5. Representative of World Bank 6. Representative of USAID **c) Secretariat** 1. AU-IBAR

2.1.2.2 The First Project Steering Committee Meeting

The first (1st) Live2Africa AFRICA Programme Steering Committee (PSC) Meeting was held at the AU-IBAR Conference Hall, Nairobi, Kenya, on the 7th of December 2017. It was attended by the Steering Committee Members from AU-IBAR, OIE, FAO, ILRI and RECs (COMESA, EAC, ECCAS, ECOWAS, IGAD and SADC), WAP, AIN, Brooke, COFENABVI, ISNV and AFAO-WAWA .

The 1st PSC Meeting reviewed and adopted the Programme Steering Committee Terms of Reference, and deliberated on and approved the inception design of the Project and a one year workplan and budget. The PSC expressed their appreciation to the European Union for funding the Live2Africa Project. The PSC provided guidance for implementation of the Program including the need for consensus building for proper targeting of the resources at hand and the need for regular meetings of the Project Technical and Management Committees. The PSC highlighted that the Project should undertake capacity development for all livestock sector actors especially youth and women. The PSC underscored the need to ensure strong engagement and inclusion of the private sector, which should be represented in the PSC through their regional value chain associations.

Other recommendations from the PSC included the need for Live2Africa to leverage the resources of different stakeholders for greater effectiveness, synergy and impacts and the importance of sub-delegation of activities to institutions better positioned to deliver on selected activities. A critical recommendation was the need for programme actitivities to be revised and refocused in the view of the fact that there was a year lapse since the conceptualization of the Project.

2.1.2.3 Recruitment of the Project Team

The Live2Africa Team is constittued of highly qualified individuals who together bring requisite expertise and experience to the Project (Table 4). The process to recruit the Team of core Experts was undertaken in accordance to African Union Commission rules and procedures. It was a protracted process with the core team of Experts being brought on board in the third quarter of 2018. The position of Project Exprt Investments and Marketing had to be readvertised due to refusal of the selected candidate to take up the offer. Given the importance of the position in orienting the Project towards a value chain approach, the Project has had to draw on sector actors to support on-going processes.

Table 3: *The Live2Africa Project Team*

Position	Name
Core Program Team	
Project Officer	Dr. Sarah Ashanut Ossiya, Ugandan
Project Expert : Investments and Marketing	Re-advertised, recruitment underway
Project Expert : Animal Health	Prof. James Wabacha, Kenyan
Project Expert : Animal Production and Resilience	Prof. Ahmed Elbeltagi, Eyptian
Project Expert: Technology, Research and Skills Development	Dr. Mary Mbole Kariuki, Kenyan
Monitoring and Evaluation Officer Expert	Admore Chakadenga, Zimbabwean
Support Positions[13]	
Senior Certifying Officer	Andrew Sumbwa Sikana, Zambian
Assistant Finance Officer	Odile Nzirabatinya, Rwandese
Senior Procurement Officer	Khalid Seid Juhar, Ethiopian
Senior Auditor	Tigist Gebretsadik, Ethiopian
Information Systems Manager	Philippe Ouedraogo, Burkina Faso
Systems Administrator	Charles Mwangi, Kenyan
Administrative Assistant	Beatrice Oluoch, Kenyan

The Project Team is under the direct supervision of the Project Coordinator/ Head of Animal Health Unit, Dr. Baboucarr Jaw, a Gambian.

2.1.2.4 Linkage to AU-IBAR Program Units

As envisoined at conceptualization, the Live2Africa Project has linkages to the AU-IBAR Programmes structured into Units, Programme 1 :Animal Health, Disease Prevention and Control Systems ; Programme 2 : Animal Resource Production Systems and Ecosystem Management; Animal Resource Production Systems and Ecosystem Management and Programme 4: Animal Resources Information and Knowledge Management. Live2Africa works with the Units, sharing expertise, synergizing resources, and coordinating efforts. A number of activities and tasks consolidate or build on past and existing intiatives under the different AU-IBAR Programmes. There is however room and opportunity for more deliberate articulation

[13] *Some of the support positions are funded under Live2Africa, but are embedded in the wider AU-IBAR institutional framework as part of the objective of building internal institutional capacity for Project coordination and delivery*

of the relationship of the Project to the Programme Units, and for elaboration of greater synergic efforts and coordination, for all the Results.

2.1.3 Project Planning

The first task once the Project Team was constituted was planning to position Live2Africa as a catalyst to stimulate greater investment for commercialization and transformation of Africa's livestock sector. The task is to translate the broad, comprehensive framework of the LiDeSA into a definitive program that will harness AU-IBAR's continental mandate to catalyse growth of the livestock sector. The estimated cost of delivering the LiDeSA is $400 million: Live2Africa has to be catalytic to have a tangible impact on stimulating greater investment in the livestock sector. The Project therefore needs to address itself to not just what needs to be done, but what should be the priorities, and how it should be done, and delivered, and in what sequence. It should provide a transformative agenda for catalytic action with coherent intervention across the Results for efficiency and amplified integrated impact.

A number of issues informed the planning process:

- The overriding integral Framework of the Project:
  - Building systemic capacity for commercialisation and transformation
  - A value chain approach, that has the greatest transformation potential[14] through addressing inefficiencies and generating value at each segment
  - Defining the Project Theory of Change: identify what would constitute catalytic action in a sequence that will trigger change at a transformative scale in the livestock sector
  - Prioritization, through consensus building, to identify priority value chains that demonstrate the envisioned change and stimulate action in other value chains
  - Identification of flagship interventions that can pilot the Project Theory of Change and for tangible outputs and outcomes in the remaining project period
- The lapse between Project conceptualization and formulation and commencement of Project planning warrants a re-formulation/update of main activities and tasks for relevance and focus
- The late start to the implementation of the Project occasioned by a protracted recruitment process necessitating identification of quick win areas for rapid delivery
- There are other partners and key stakeholders undertaking various initiatives in the sector, a framework is needed that supports Live2Africa identify its niche based on comparative advantage, and for coordinated action and expanded scale and synergic impact with other players in the sector.

2.1.3.1 Project Planning Retreats

Two Project Planning Retreats were held: the first in Cairo, Egypt from 28th to 30th July 2018 with the objectives of initiating the planning process by updating and harmonizing the understanding of the Project by the whole Project team, review and articulation of the objective of each Result, and refining the priority activities and defining a framework for coherence across the Results. The Retreat also afforded the opportunity to prepare for the reformulation process that would be triggered by the Result Oriented Monitoring Mission (ROM Mission) scheduled for October 2018.

The second in Planning Retreat held 2nd – 7th August 2018 in Naivasha Kenya built on and consolidated the outputs of the 1st Planning Retreat, and provided a framework for the development of the Logframe and implementation plan. The specific objectives included completion of the revised Project Results Framework and the Logical Framework, articulation of the sub-activities preparation of the draft Implementation Plan, the 2019 Annual Plan, the M&E Framework and Performance Monitoring Plan, identification of quick wins, presentation of a knowledge management system for the Project and the Project Share Folders, and preparation for the Livestock Value Chain and the Stocktaking Exercise. All planning documents are drafts for approval by the Project Steering Committee

Box 1: *Core Project planning documents generated during the two Live2Africa Planning Retreats*

- The revised and consolidated Results Framework
- The revised and updated logical framework incorporating the realigned and consolidated activities and updated indicator profiles
- The draft Theory of Change
- The Implementation Plan and budget for the whole Project
- The 2018 4th quarter Workplan which focused on quick win actions and other activities that were already approved by the Programme Steering Committee
- The draft M&E Framework including tools and templates
- The 4th Quarter Mission Plan
- TORs for the Livestock Value Chain Prioritization and Stocktaking Exercises for each Result

2.1.3.2 Livestock Value Chain Prioritization and Stocktaking Exercises

Member States and RECs have identified their priority livestock value chains but it is evident that there remains a gap in sufficiently stimulating commercialization and transformation that will achieve the desired growth in the sector to meet demand for livestock, food and animal sourced products in terms of volume and quality. The task for Live2Africa is to identify catalytic actions (what, and in a dynamic and productive sequence) that would trigger commercialization and transformation at scale, with sustainable outcomes.

Preparations are underway for Live2Africa to undertake a livestock value chain prioritization exercise to identify at least five (5) priority value chains that it will focus on, and thereafter a stocktaking exercise in each Result to ensure coherency and amplified impact from its activities.

2.1.4 The Results Oriented Monitoring Mission

European Union commissioned a Results Oriented Monitoring Mission to assess the implementation arrangements and progress made by Live2Africa. The Consultant gave a debrief, which highlighted the need to further elaborate Live2Africa's Theory of Change, to enhance the convergence of activities under each Result, providing clear justification for the specific activities, and how they join up together; conceptualization of the linkages between the Results; clarity on the roles of Regional Economic Communities, articulation of a framework for the Member State Focal Persons; development of a Gender Strategy; rationalization of the M&E indicators to create a monitoring systems that works for decision making; and refinement of the subsidiarity principles to define ways of working with weak and strong partners.

3. Detailed Activity Report by Result

3.1 Result 1: Investment in Livestock Value Chains are Increased

Result Objective: This result area aims to enhancing investment and the performance of the livestock value chains on the continent through identifying priority value chains, key policy intervention points and financing mechanisms, and piloting promising interventions.

Outputs and Main Activities:
Activity R1.1: Priority and promising livestock value chains showcased
Activity R1.2: Policies, regulatory frameworks and strategies to enhance LVC performance developed and implemented
Activity R1.3 Innovative incentives and financing mechanisms to increase investment expanded

R1.1 Priority and Promising Livestock Value Chains Showcased

R1.1.1 Support Member States Select Priority Value Chains

A continental workshop on supporting investments in African Livestock Value Chains was held in Lusaka, Zambia from 19 to 12 July 2017. The specific objective was to document success stories and experiences of various small and medium Enterprises (SMEs) engaged in livestock value chains in order to attract investment through packaging of appropriate information on their business experiences. The exercise aimed to identify areas of targeted support and innovation, focussing on the following guidelines:

- economic viability of identified value chains (size of the enterprises, and age)
- main supporting policies and legislations for business viability
- capital investment and source of funding
- marketing channels and compliance with SPS and other market related standards and requirements
- potential for growth and innovation

Presentations of success stories from initiatives across the continent were made covering the nature of business or organization, how long they have been in existence, number of people employed, source of initial investment, reasons for success of the business, markets for the business and market access requirements, opportunities for future growth, government support for the business and ease of getting finance, policies or regulations that facilitate or hinder the business and suggestions for future development of the business. This was also enriched and anchored by panel discussions on these presentations.

Successful livestock value chains stories included:

- South Africa Wool Sheep Development Program towards market readiness and Access for small scale producers in South Africa;
- Sebo Foods from Zimbabwe;
- Use of data to make a case for support to the livestock sector-by showing its contribution to GDP and placing into the forefront the socio-economic aspects; 'the human face';
- Think Fresh Meat – SAFIKA;
- Uganda livestock producers' associations;

- Farmers pride-case study;
- IGAD Presentation which brought to the forefront the need to connect policy with the stakeholders who are the end user or implementers of the policies, focusing on small scale farmers. Who are the beneficiaries of livestock value chains; and who is a livestock value chain investor
- One hen campaign project: Changing lives a hen at a time;
- Uganda Cattle Traders and Transporters Association;
- Agro-tunnel International Ltd

Table 4: *Key recommendations from the Zambia prioritization exercise on where to invest*

• Infrastructure development • Access to finance (Establish a regional fund) • Provision of livestock value chain related services • Training development • Adherence to SPS standards • Adherence to the Maputo and Malabo declaration and regional policies • Good governance (PPP) • Research and development	• Suitable livestock genetic selection • Market intelligence • Strengthening of horizontal and vertical linkages • Start focusing on long term sector specific strategies • Tax incentives for priority value chains • Protection for young priority industries through tax barriers/tariffs • Promoting entrepreneurship among value chain participants

R1.2 Policies, regulatory frameworks and strategies to enhance LVC performance developed and implemented

1.2.1 Support MS in formulation and implementation of investment friendly policies and regulations for prioritized LVCs

R1.3 Innovative incentives and financing mechanisms to increase investment expanded

1.1.3 Support MS to initiate country and regional LVC investment attraction initiatives

1.1.4 Support establishment of catalytic flagship businesses and projects

3.2 Result 2: Animal Health Delivery Services are Improved

Result Objective: The activities undertaken under this Result aim to strengthen the capacity of veterinary services, enhance coordination, and harmonization of policies, legislation and disease intervention measures. The action also supports Member States in disaster risk management and in emergency disease situations.

Outputs and Main Activities:

Activity R2.1: Performance of Veterinary Services (PVS) strengthened

Activity R2.2: Capacity for coordination and implementation of integrated and quality animal health services strengthened

R2.1 Performance of Veterinary Services (PVS) strengthened

Under this sub-result, activities aim to consolidate recent advances made by MS in veterinary governance in response to the EU funded AU-IBAR VET-GOV programme and will center on follow up PVS Missions to selected Member States, veterinary legislation missions, assist Member States in formulating strategic plans /Investment Plans and resource mobilization. Training for African Experts in areas of PVS, GA and

Veterinary Legislation Support Programme will be undertaken.

Sub-Activity R2.1.1 Consolidate recent advances made by MS in veterinary governance in response to the EU funded AU-IBAR VET-GOV programme, and support further progress

R2.1.1.1 Carry out follow up PVS Missions to selected member States to determine the current state of play of the NVSs

Not carried out: self-assessment PVS for 6 countries to commence from 2019.

R2.1.1.2 Carry out Veterinary Legislation Missions to selected Member States

Following an OIE Veterinary Legislation Support Programme (VLSP) Identification mission for the Gambia that took place from 2nd to 6th May 2016, AU-IBAR supported the establishment and operationalization of a national task force to update the national legislation in response to a request for assistance from the Minister of Agriculture. The process for the review was articulated, and the terms of reference for the task force were:

- Review and update the Diseases of Animals Act and Regulations by carrying out an audit of the Act against OIE Standards and benchmarking it with similar pieces of legislation from other countries.
- Formulate drafting instructions for the new legislation to replace the Diseases of Animals Act, in accordance with the format and procedure of the Legal System employed in The Gambia. The Act may include aspects of surveillance, animal disease control, veterinary public health, animal welfare, movement of animal and laboratory provisions. Care should be taken to ensure that the new act is harmonized with other existing related Acts.
- Review and Update The Gambia Veterinary Council Act in order to address the registration of veterinary para-professionals, continuing education requirements, better define the practice of veterinary medicine, and facility standards and their inspection, among others.
- Formulate drafting instructions for the amendments to The Gambia Veterinary Council Act, in accordance with the format and procedure of the Legal System employed in The Gambia.
- Propose regulations on food safety, slaughter of animals, structural standards for abattoirs and slaughter houses and inspection principles.
- Contribute the technical elements to the Ministerial Cabinet Paper/Memo for the review and update of the Veterinary Legislation.

The expected outputs of the task force are:

- Drafting Instructions for a new Act and Regulations (on food safety, slaughter of animals, structural standards for abattoirs and slaughter houses and inspection principles) to replace the Diseases of Animals Act and its Regulations
- Drafting Instructions for amendment of The Gambia Veterinary Council Act
- Write-up on the technical elements for the Cabinet Memorandum/Paper for the review of Veterinary Legislation

AU-IBAR recruited a Technical facilitator who carried out the first phase of the Review of Veterinary Legislation in the Gambia from 24 to 26 September 2018. In this phase the facilitator undertook the

following activities:

- Facilitated a meeting of the National Veterinary Legislation Task Force during which he conducted orientation for the task force and initiated the formulation of the Concept Note and Road Map on the Review of Veterinary Legislation in the Gambia
- Facilitated the collection and provision of global and continental policy and strategic framework documents (posted them electronically) for the Task Force.
- Facilitated the formulation of the Concept Note on the Review of Veterinary Legislation in the Gambia, which included Road Map on the review.

R2.1.1.3 Assist Member States in formulating Investment Plans and resource mobilization to address outstanding gaps in Veterinary Governance and Veterinary Legislation

To be carried out once 2.1.1.1 is completed

R2.1.1.4 Carry out trainings on PVS, GA and Veterinary Legislation for African Experts

The OIE in collaboration with AU-IBAR and the Regional Economic Communities (RECs) aims to provide personnel from its Member Countries with an enhanced understanding of the performance of Veterinary Services (PVS) Tool and PVS Evaluation approach and methods. Two three-day OIE PVS pathway orientation training workshops were organised for Anglophone and Francophone countries respectively. Six Experts from AU-IBAR and One REC were trained. The different trainings as envisaged in this activity will continue in the subsequent quarters.

The overall objectives of the trainings were to assist the Veterinary services of the OIE Member countries to:

- Better promote, prepare for, host and follow up on the OIE PVS Missions and Reports
- Independently follow the PVS Tool methodologies within their country (e.g. PVS self-evaluation at national and decentralized levels).

The specific objectives were to:

- Allow successful trainees to i) potentially participate as observers on PVS pathway missions to other countries within Africa and ii) subject to their performance at the training and as observers on a mission, to gain full OIE certification as OIE PVS Pathway experts with the capacity to undertake missions globally.
- Develop a regional network of PVS pathway specialists, receiving trainings, hosting and/or observing missions and participating in subsequent national or regional PVS pathway follow up workshops to undertake analysis and plan for implementation of recommendations to strengthen Veterinary services at national or regional level.
- Six (6) experts have trained during 1st PVS Pathway Orientation Training workshop. The trained staff will provide support during external evaluation missions and to countries undertaking PVS self-evaluation using their own (trained) national experts.

R2.1.1.5 Support capacity building programs to enhance technical competences of veterinary professionals in key areas of concern

To be undertaken once 2.1.1.1, 2.1.1.2, 2.1.1.3 are completed

R2.1.1.6 Support capacity building programs to enhance technical competences of veterinary professionals in key areas of concern

To be undertaken once 2.1.1.1, 2.1.1.2, 2.1.1.3 are completed

Sub-Activity R2.1.2 Develop guidelines, inclusive of QRA (Quality risk assessment), that inform MS vet services advance to higher levels of OIE PVS critical competency

R2.1.2.1 Draft Guidelines for PVS advancement

Not undertaken- May not still be valid as the PVS Tool has very elaborate descriptions and guidelines on levels of advancements

R2.1.2.2 Meeting to Discuss and Adopt Guidelines

Not undertaken- May not still be valid as the PVS Tool has very elaborate descriptions and guidelines on levels of advancements

Sub-activity R2.1.3 Strengthen surveillance, field diagnosis, reporting, prevention, control and emergency preparedness and response to priority Transboundary Animal Diseases (TADs) and zoonoses by MS based on the strategic plan.

This will build on the achievements and lessons learned under the VET-GOV, STSD and SMP-AH Projects

R.2.1.3.1 Review the surveillance, field diagnosis, reporting, prevention, control and emergency preparedness capacity of Member States based on the PVS reports and other sources to Identify areas of support based on priority diseases for each country

Emergency support to Burundi to contain an outbreak of PPR: Following an outbreak of PPR in Burundi and the official notification to AU-IBAR and OIE by the national authorities an emergency technical assistance mission to Bujumbura, Burundi was undertaken from 30th January to 1st February 2018 (**Annex 3&4**). The mission aimed to take stock of the situation on the ground and to discuss with the national veterinary authorities and officials on the immediate needs to contain the outbreaks. The mission was undertaken jointly by staff from AU-IBAR, AU-PANVAC and the East African Community (EAC). The overall objective was to assist the Ministry of Agriculture and Livestock, Burundi to enhance the response to an outbreak of Peste des Petits Ruminants in the country. The specific objectives were:

- To conduct an assessment of the PPR situation in the country
- Assessment of the activities and measures already taken to contain the outbreaks control the disease and prevent in close collaboration with the national veterinary authorities its spread from infected to non-infected areas and to help the Burundi Veterinary authorities to perform the control measures;
- To identify short-term, medium term and long-term needs to control the outbreak of PPR and support the eradication of the disease in Burundi

Findings, conclusions and recommendations: The disease had spread rapidly and had caused high mortalities in there Provinces in Burundi. Serums collected from animals during the mission in addition to certain samples (serums and tissues of organs) available to the veterinary laboratory of Burundi were forwarded to AU-PANVAC for further and more detailed analyses. The table below presents the samples collected and forwarded to AU-PANVAC laboratory.

Table 6: *Samples collected and submitted to AU-PANVAC Laboratory*

Type of Sample	Number
Sera (collections before the onset of disease)	559
Lungs	2
Swabs (nasal and tear)	19
Sin (Capri pox)	6
Total	**586**

Analysis of the samples was carried out using molecular biology techniques, including PCR and serology (antigen and antibody detection). Organ tissues were found to be positive for the PPR (presence of the PPR virus antigen and nucleic acid) confirming the presence of the PPR in the areas where the samples were collected. In addition to the technical support the Ministry of Agriculture and Livestock in Bujumbura, Burundi was supported with 100,000 doses of PPR vaccine to contain the outbreak.

From the mission it was found there is a serious risk that the disease may become endemic in the country if concerted control measures are not sustained. The endemic status would be further complicated with the involvement of wildlife population. The extent of the disease remains unknown as no extensive epidemiological investigations have been carried out.

The following recommendations, short and medium to long term are premised on the understanding that PPR is the most important TAD of small ruminants in Africa and that there is effective vaccine for its prevention and control.

Table 7: *Recommendations to contain the PPR outbreak in Burundi*

Immediate/ short-term **(6 months or less) actions are intended to stop further spread of the disease and facilitate containment**
• AU-IBAR and partners should move to provide the necessary assistance for Burundi to contain the spread of the disease. • Contact should be made with Uganda to facilitate official trace-back of the disease introduced into Burundi through the Boar goats supplied from Uganda • Contact should also be made with Rwanda to enhance surveillance and the control of livestock movements along the common border with Burundi as part of measures to prevent the spread of the disease to another country in the region. • The need to conduct thoroughly epidemiological investigations to benchmark zonation and containment; • To provide PPR vaccines for the ring vaccination around the known outbreaks • To train urgently the cross-border livestock officers from both countries (if possible) in Uganda and Burundi in disease recognition and reporting; • Develop and implement communication, sensitization and awareness creation campaign at all levels, with special attention to farmers using local media, TV, Radio…..; • Undertake ring vaccination in the disease free areas bordering/surrounding the infected areas; • To build the capacity of the vaccination team enable an efficient vaccination; • Undertake joint cross border disease control measures/interventions between Uganda and Burundi; • Build capacity for surveillance, diagnosis, control and containment of animal diseases; With the assistance of AU-IBAR and other development partners, review the national PPR strategy and action plan for PPR control/ eradication and seek funding;

• Develop an emergency preparedness plan for PPR as part of the national contingency plan for animal diseases and disasters; • To conduct socio-economic impact study of the disease outbreak; • Joint AU-IBAR FAO technical cooperation program (TCP) to assist the country in containing the disease as well as strengthening its capacity in laboratory diagnosis and disease surveillance, control and containment.
In the medium to long term (6 months and over)
• Continue with the short-term activities as deemed necessary; • Implement the national strategy and action plan (projects) for PPR control; • Review of Small Ruminant sector in Burundi • Develop a program for restocking small ruminants farming across the country. Re-stocking should only be done once DVS is fully satisfied that the disease has been eradicated and appropriate control and surveillance measures are put in place.

Emergency support to Sierra Leone to contain a PPR Outbreak: Following a request from Sierra Leone in following a suspected outbreak of PPR, AU-IBAR provided funding support to the National Veterinary Research Institute (NVRI), Vom, Nigeria to undertake an outbreak investigation, sampling and laboratory testing. Peste des Petites ruminants was confirmed through the Samples taken and some serological evidence of RVF was evident. The final report is being awaited to provide a clear direction as to the next steps.

Response to Rift Valley Fever (RVF) Outbreaks in the Eastern Africa Region: To support countries experiencing RVF outbreak in the Eastern Africa Region and to better prepare the countries at Risk and to better prepare for future RVF outbreaks, a RVF regional technical workshop was held in Dar es Salam, Tanzania, from 28 to 30 August 2018 (Annex 8)

R2.1.3.3 Support strategies/approaches to strengthen and harmonize TADs control systems at MSs and regional levels

Peste des Petits strategy formulation: Within the framework of the global initiative to eradicate PPR by 2030 and in line with the continental strategy, AU-IBAR is supporting the remaining 21 Member States on the continent that have no PPR Strategies develop national control and eradication strategies, and 7 others with draft strategies validate them. The Specific Objectives were:

- To assist the remaining 21 MSs in developing the draft PPR control and eradication strategy and 5-year action with and estimative cost;
- To assist MSs in validating their national PPR control and eradication strategy and 5-year action plan at national level,
- To consolidate the 5-year action plan and budget of the PPR control and eradication strategy at regional and continental level

AU-IBAR convened a four day write-shop in Naivasha, Kenya from 4th – 7th April 2018 to provide technical guidance and support to teams from the target Member States to draft the national strategies and action plans. Twenty two Member States were invited to participate in the write-shop but five Member states were not able attend. The following 16 Member States attended: Algeria, Angola, Botswana, Burundi, Cape Verde, Guinea, Lesotho, Madagascar, Malawi, Morocco, Mozambique, Namibia, Sao Tome and Principe, Togo, Tunisia and Zimbabwe.

Table 8: *The stage of development of PPR Strategies and action plans in the supported Member States*

Number	Countries	Status
8	Burundi, Cape Verde, Guinea , Libya, Namibia, Togo, Tunisia, Zimbabwe	Validated with supported from AU-IBAR
4	Algeria, Lesotho, Malawi, Mozambique	Draft Strategy to be validated
4	Angola, Botswana, Morocco, Sao Tome & Principe	Draft Strategies under preparation :with support from AU-IBAR

The Live2Africa Project is also providing some of the costs towards completion of strategies for Burundi, Rwanda, Tanzania, Ghana, Gambia, Benin, Nigeria and Sierra Leone.

Resource mobilisation for PPR Control and Eradication: AU-IBAR, working with Member States, in collaboration with some RECs, FAO and OIE, is providing support for the formulation of national PPR control and eradication strategies as well as budgeted five year Action Plans to operationalize the implementation of the strategies. The resources available for the implementation of the strategies, programmes and national action plans are limited and cannot currently allow for the implementation of an effectively coordinated and harmonized programme for the control and eradication of PPR throughout Africa.

In preparation for the pledging conference hosted by EU in collaboration with FAO and OIE that took place on 7th September 2018 as part of the effort to secure the commitment of countries globally and mobilize resources for implementation of PPR eradication activities at different levels, a two day meeting with RECS, AU-PANVAC and selected Member States from the different regions of Africa was organized from 15-16 February 2018 at Fish Eagle Hotel in Naivasha, Kenya in order to initiate a coordinated approach to resource mobilization for the eradication of PPR from Africa.

The objectives of the meeting were

- To share updates on the status and progress in implementation of the Pan-African and Regional Strategies and programmes for the control and eradication of PPR.
- To share information on efforts and challenges towards resource mobilization for the implementation of the PPR eradication strategies and programmes
- To reflection on potential gaps and overlaps, roles and responsibilities of the MS, continental, regional and international organizations in the PPR eradication programme
- To agree on approaches for a coordinated resource mobilization effort for PPR eradication and the control of other priority diseases of small ruminants in Africa

The meeting made a declaration and developed a common position that enabled Africa to present a common position at the Global PPR pledging Conference [held when and where].

Sub-Activity R2.1.4 Support inter-sectoral collaboration to undertake One Health VPH initiatives

R2.1.4.1 Take stock of OH initiatives at MS and REC levels for the past decade and formulate strategies for the broadening and institutionalization of the OH approach

Workshop on the state of one health implementation and identification of innovative pilot activities was undertaken on 15-17 May 2018, Azure Hotel, Nairobi, Kenya. The overall objective of the workshop was to take stock of OH initiatives and agree on strategies and best practices, and identify broad themes for pilot activities to broaden and deepen the institutionalization of the OH approach in the management of TADs and Zoonoses.

The workshop identified success stories, lessons learned and best practices, but also gaps and challenges and made suggestions on how best to scale up OH institutionalization. The key priorities and areas of investment identified for pilot/proof of concept activities included capacity building, establishment/ strengthening of OH coordination mechanisms, evidence based policy advocacy, budgetary allocation and resource mobilization, data sharing, enactment of policies and legal frameworks, and, development and implementation of integrated multi-sectoral OH programs, contingency plans, surveillance preparedness and response plans.

A Consultative meeting for African Union Organs on Antimicrobial Resistance (AMR) was held on 28th June 2018, Addis Ababa, Ethiopia. The main outcomes of the meeting were:

- Creation of a formal AU Task Force for Antimicrobial Resistance Control
  - Africa CDC and AU-IBAR developed a memo and terms of reference for the Task Force
  - Draft Memo and Terms of Reference to were circulated among meeting participants before being finalized
  - Each Organ designated a "focal point," not just a representative.
  - The Memo proposed a system of rotating co-chairs and rotating locations of meetings to ensure full ownership and exposure to respective expertise
- Future meetings will need to include NEPAD, given its role in developing the African Medicines Agency
- Africa CDC will begin planning a Civil Society Engagement Meeting for the fourth quarter of 2018 and include participation of all Task Force Organs.
  - Will consult with all organizations in Task Force to identify diverse non-governmental stakeholders, including patient advocacy groups, occupational groups (e.g., farmers), environmental and conservation societies, and private for-profit sectors
  - Objective of meeting will be to discuss effective message for AMR control for different audiences and effective strategies for increasing awareness and, where necessary, changing behavior and social innovation
- Africa CDC and AU-IBAR will draft an AU Position Paper on how the African Union will be addressing AMR in the continent
- The next Task Force meeting should focus on discussions on how to revise the Africa CDC AMR Framework into an AU AMR framework with a One health approach.

R2.1.4.3 Review the state of play of the veterinary public health function in Africa's NVS and develop a road map for their enhancement to strengthen food and public health safety of livestock products

No undertaken- Question whether still valid with the PVS assessments

Activity R2.2 Capacity for coordination and implementation of integrated and quality animal health services strengthened

Sub-activity R2.2.1 Promote the establishment of coordination mechanisms for the delivery of animal health services and control of Transboundary Animal Diseases

R2.2.1.1 Support Regional Economic Communities and MSs to establish/strengthen sustainable integrated coordination mechanisms to harmonize and enhance animal health service deliver, SPS standards and the control of TADs and zoonoses

Support for the establishment and operationalization of the Africa Association of veterinary Education Establishments (2A2E-V)

In order to enhance the quality of veterinary education, training and research the African Union Interafrican Bureau for Animal Resources (AU-IBAR) through the Sustainable Development of Livestock for Livelihoods in Africa (Live2Africa) programme has supported the establishment of the African Association of Veterinary Education Establishments (2A2E-V). The association will enhance collaboration among all African Veterinary Education Establishments; spearhead the development of a continental quality assurance framework; harmonize veterinary curricula, research and community service by establishing reference standards; enhance dissemination of innovation and good practices; build capacity among educators in African Veterinary Education Establishments and promote quality facilities at African Veterinary Education Establishments.

The association was launched by the Minister of Agriculture and Land Reclamation, H.E. Prof Dr. Ezz El Din Abostate in Cairo, Egypt on the 26th July 2018 during the 1st Pan-African Conference of the Association that took place on 25th to 27th July 2018. The conference agreed to reform training programs to reflect the needs of the industry and the society; strengthen quality assurance systems in veterinary education establishments and work towards the establishment of a continental framework; work towards harmonisation of the veterinary curricula in VEEs through development of a continental framework on harmonisation of curriculum; support the twining programme for Veterinary Education Establishments in Africa and enhance networking of 2A2E-V with other networks and associations such as the Council on International Veterinary Medical Education (CIVME) among other recommendations. The Meeting was attended by 77 representatives from 51 Veterinary Faculties, Colleges and Schools from 25 African Union Member States (Algeria, Angola, Cameroun, DRC, Congo, Ethiopia, Ghana, Guinea, Kenya, Libya, Madagascar, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Senegal, South Africa, Sudan, South Sudan, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe). Representatives from Food and Agriculture Organisation of the United Nations (FAO), Regional Office for Africa; Common Market for Eastern and Southern Africa (COMESA) and World Animal Protection (WAP) also participated in the Conference.

The following academics, drawn from VEEs from the 5 regions of Africa, were elected during the conference to steer the activities of 2A2E-V as per the 2A2E-V Constitution; Prof Yalace Kaboret (president), Prof Hany Youssef Hassan (1st Vice-President) , Prof Dietmar Holm (2nd Vice-President), Prof Ndichu Maingi (Secretary General), Prof Jeanne Ngogang (Treasurer), Prof Clement B.I. Alawa (Member), Prof Pyana

Pati Patient (Member), Prof Tadele Tolosa (Member), Prof Bouyoucef Abdallah (Member) and Prof King S. Nalubamba (Member)

Support for the establishment and operationalization of the Africa Association for Veterinary Statutory Bodies (2A-VSB)

The performance of livestock production is linked to an effective veterinary service delivery system. The veterinary profession plays a critical role in promoting animal health and production, animal welfare, public health and the protection of the environment. Therefore, all cadres of the veterinary profession must adhere to high ethical standards and be prepared to apply their specialized knowledge and skills in the interest of others. This is regulated by the in country National Veterinary Statutory Body. The organization, structure and functioning of the Veterinary Statutory Bodies and Veterinary Associations are prerequisites not only for the quality of Veterinary Services but also for private veterinary practice in a country. The existing structures and functional arrangements in most Member Countries of the African Union (AU) are not up to standards. Change is therefore necessary for compliance with the provisions of the Terrestrial Animal Health Code dealing with the quality of Veterinary Services, the issue of international veterinary certificates and the regulation of the practice of veterinarians and veterinary para-professionals in the public and the private sector. Studies carried out by AU-IBAR show that there is widespread, poor or absence of regulation of the Veterinary Profession in some Member States of the African Union, failure to comply with international Guidelines on standards, and hefty medical and veterinary bills for Africa, as well as locking out of the African products of animal origin from the global market. The studies also showed disparity in the training, categorization and regulation of the Practitioners and the Profession. The challenges of VSBs in Africa include inadequate or lack of legal recognition and weak legal structures in the states where they exist, scarcity of resources for operations, lack of, or insufficient autonomy, insufficient technical capacity and insufficient resources to develop the technical capacity of the VSBs and their employees.

A Pan-African Conference on the Establishment and the Launch of the Association of African Veterinary Statutory Bodies (2AVSB) was held from 25-27 July 2018 at Safir Hotel in Cairo, Egypt. The conference was organized under the auspice of the African Union Inter-African Bureau for Animal Resources (AU-IBAR) and the financial support of European Union under LIVE2-Africa program. A total of 55 participants attended the conference.

The participants were the Representatives of Veterinary Statutory Bodies (VSB), Veterinary Council (VC) and the Veterinary Association (VA) from 43 African Union (AU) Member States (MS) namely Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Chad, Congo Brazzaville, Cote d'Ivoire, Democratic Republic of Congo (DRC) Egypt, Ethiopia, Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, South Sudan, Sudan, Swaziland, Togo, Tunisia, Uganda, and Zambia. Representative of African Veterinary Association (AVA), Regional Economic Communities (REC) namely COMESA, IGAD and UMA; Representatives of FAO, World Animal Protection, an Expert on Animal Identification and Traceability (LITS), a resource person and IBAR staffs.

Objective

The overall objective is to formally establish and to launch the Association of African VSBs in order enhance the effectiveness and efficiency of the VSBs and to ensure the quality of veterinary service delivery in Africa.

The Specific Objectives were the following:

- To establish the African association for VSB
- To launch the 2AAVSB
- To promote networking among VSBs and the harmonization of Veterinary Service Delivery in AU Member States.
- To finalize a full project proposal for VSBs and twining program according to OIE guidelines
- To agree on the road map (post-Conference) follow up actions (work plan)

Outcomes of the conference

- Finalization and adoption of the constitution of the 2AVSB
- Election of the executive committee and the board of the 2AVSB

Table 10: *The Executive Committee of the Continental Board of 2A-VSB*

Region	Country	
Northern	Tunisia	Morocco
Southern	South Africa	Angola
Western	Senegal	Ghana
Eastern	Uganda	Sudan
Central	DRC	Cameroon

Table 11: *Chair and Vice Chair of the Continental Board of 2AVSB*

Board	Name	Country
Chair	Dr. Florence Kasire Masembe	Uganda
Vice Chair	Prof. Jamal Hossaini-Hilali	Morocco

1.2.1.2 Support/establish/strengthen Regional Animal Health Centers

Not undertaken

2.2.2 Promote PPP in the delivery of veterinary services, inclusive of underserved areas, giving priority to pastoral communities.

2.2.2.1 Conduct Surveys/assessment to map status of PPP in the delivery of veterinary services in Africa

Not undertaken

2.2.3 Build capacity to improve compliance with and harmonisation of animal health and welfare policies, strategies, standards, methods and regulation;

2.2.2.1 Review the regulatory and enforcement capacities of veterinary services to identify capacity and policy gaps and needs

To be undertaken during the next quarter

2.2.2.3 Develop strategies/programs for capacity building on sanitary regulation and enforcement

Africa Common Position on OIE Standards

From 12 to 13 April 2018, the Technical Meeting of Animal Health experts was organized to develop common positions of draft standards that will be discussed by the 86th General Session of OIE in May 2018.

Specific rationale for organizing this meeting were:

- Low participation of African Countries members of OIE (World Organisation for Animal Health) in providing sound comments during the process of standards setting;
- Strong will of African countries to actively participate in the cycle process of commenting and to build coordinated positions on proposed changes of the OIE Codes;
- Strong demand of OIE African delegates to meet, out of the OIE institutional context, for harmonizing views and to use the expertise available in Africa to provide guidance to OIE Delegates
- AU-IBAR has successfully convened Technical CVOs Group meetings in 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017 to provide technical guidance and advice to the OIE African Delegates. This meeting is being convened in order to propose coordinated positions with regard to animal health standards and issues in Africa.
- Need to sustain the effective participation of AU Member States in the work of the OIE.

The following are the objectives of the meeting:

i. Review reports of scientific, ad hoc and code commissions and in particular proposed changes to the codes which will be submitted to the OIE Terrestrial Animal Health Standards Commissions for the Commission's meeting in May 2018 in order to:
   - Identify areas of high priority and common interest for Africa
   - Analyse rationale, justification, consequences and impact (technical, institutional, legal, commercial) of proposed amendments to the Codes
   - Propose common written comments and position for the African continent on these proposed amendments to be presented to the 86th General Session of OIE.
ii. Enhance the work of African experts and centres of excellence in the area of animal health standards
iii. Harmonize processes of consultation on OIE standards at national level, including ways of involving the private sector

Technical meeting of experts to prepare comments for the September 2018 meetings of the OIE terrestrial animal health standards commission (TAHSC), OIE scientific commission for animal diseases and aquatic animal health standards commission held on 17 to 18 July 2018, Nairobi, Kenya

The objective of the meeting was to review reports of scientific, ad hoc and code commissions and in particular proposed changes to the codes which will be submitted to the OIE Terrestrial Animal Health Standards Commissions and Aquatic Animal Health Standards Commission in September 2018 in order to:

- Identify areas of high priority and common interest for Africa
- Analyse rationale, justification, consequences and impact (technical, institutional, legal, commercial) of proposed amendments to the Codes
- Propose common written comments and position for the African continent on various draft OIE Chapters.

The 10th Pan African meeting of Africa's CVOs and OIE delegates to develop coordinated position on animal health standards was held from 23 to 26 April 2017 in Nairobi, Kenya.

The main outcome of the meeting was the adoption of African common positions on draft OIE Chapters scheduled for adoption at the 86th General Session of the World Assembly of OIE Delegates which will be held in Paris, France from 20 to 25 May 2018.

Partnership meetings were also held between African Union Member States, Representatives of the European Union and the United States Department of Agriculture to foster dialogue and information sharing on draft Chapters of OIE with the view to facilitating the adoption of these standards during the 86th OIE General Session.

Other issues discussed included information sharing sessions on:
- AU-IBAR Strategic Plan 2018 to 2023
- Mechanisms for improving national consultations on OIE draft standards
- Animal Health Strategy for Africa
- Partnership between AU-IBAR and OIE on PVS self-evaluation
- Partnership between AU-IBAR and FAO on field epidemiology training for veterinarian (FETPV)
- Post Rinderpest contingency plan for Africa
- Animal Resource Information System 3

2.2.2.4 Support to African Animal Welfare Platform

The meeting on the establishment of the coordination committee of the Africa platform for Africa (APAW) 27th April 2018, au-ibar headquarters, Nairobi, Kenya

3.3 Result 3: Animal Production, Productivity and Ecosystem Management Enhanced

Result Objective: Under this result area, the project will undertake activities aimed at enhancing the production, productivity and ecosystems management. These will include the improvement of breeding policies, technologies, processes and institutions, improvement of sustainable best practices in natural resources management, and improvement of the quality and availability of feed resources.

Outputs and Main Activities:

R 3.1: Genetic potential and performance of animals improved and breeding strategies supported

Activity 3.1.1: Operationalize regional gene banks and centers of excellence

Activity 3.1.3: Support implementation of breeding and conservation programs for sustainable utilization and management of AnGR

R 3.2. Sustainable Best practice natural resource management developed and adopted
Activity 3.2.1. To undertake scoping assessments and studies to identify promising interventions needed to improve NRM, including climate-smart ones

R 3.3. Access to quality feed and water enhanced

R 3.1: Genetic potential and perforance of animals improved and breeding strategies supported

Activity 3.1.1: Operationalize regional gene banks and centers of excellence

Sub-Activity 3.1.1.1. Identifying current status of regional gene banks.
This sub-activity is based on three tasks: Desk study of the Genetics Project Output/reports (in progress following up updates by the Genetics project); Undertaking a series of internal consultative meetings with the "Genetics Project" staff members (in progress following up the Genetics project); and Undertake a regional consultative validation Work shop with stakeholders from 5 regional Gene Banks, which will be included in the Stock taking exercise (in 3.1.3.1.). The stock-take exercise is planned to take place by mid-December 2018.

As narrative summary for the activities supporting the establishment of a regional/sub-regional facility for ex situ conservation, in particular cryogenic storage and establish an African gene bank for AnGR is: The shipments of equipment for the 5 regional gene bank is at an advanced stage with some deliveries already on the way to their respective destinations. Delivery is roughly at 40-50%. CIRDES has acquired, installed the liquid nitrogen generator. Standard Operating Procedures (SOPs) for the technical, administrative and legal requirements for the management of regional gene banks for AnGR have been developed by African technical and legal experts. This step has been achieved as prerequisites for the operation and management of the regional gene banks. These SOPs will harmonize the operations of the gene banks and make it easier for Member States to share and exchange genetic materials using laid down procedures and protocols. Material Transfer Agreements (MTAs) are also in place for the movement of genetic materials between countries.

Activity 3.1.3: Support implementation of breeding and conservation programs for sustainable utilization and management of AnGR

Sub-Activity 3.1.3.1. Stocktaking of MS and RECs breeding objectives and programs for different AnGR, and the level of implementation achieved, drawbacks, obstacles, etc.
This assessment is based on carrying out a stocktaking exercise to assessing the current status of implemented breeding programs in 5 regions of the African continent. The 5 regions has been already

determined within the activities of the Genetics Project. (Result area: 1, Activity # 4). The stock-take exercise is expected to be fulfilled by Mid-December.

The overall objective of stocktaking consultative workshop is: to take stock of existing genetic improvement plans/breeding programs implemented in the African MS and RECs. Accordingly, to highlight the roadmap plan(s) for the establishment of required and/or the improvement of existed breeding programs for improving livestock genetic potentiality and productive performance; and support the implementation of breeding and conservation programs for sustainable utilization and management of livestock resources in Africa.

The Specific Objectives of the consultative workshop are:

- To undertake inventory of breeding programs/genetic improvement plans implemented (or partially implemented) in African MS and RECs, and demining case-studies, representing different breeding programs.
- To undertake a SWOT analysis on the case-studies of the implemented breeding programs.
- Based on the SWOT analysis results, to identify successful breeding programs that effectively support the genetic potential and performance of livestock for sustainable utilization and management of indigenous livestock resources.
- To identify gaps in, and opportunities for the implementation and adoption of those identified potential breeding programs, and therefore enhance their opportunity for implementation and adoption in Africa.

The Stocktaking exercise will be undertaken in two phases. The first phase will focus on inventorying implemented breeding programs in MS and RECs in Africa considering the parameters and measures in Table 12 below.

Table 12: *Parameters and measures to guide the inventorying of animal breeding programs in MS and RECs*

1. Inventory of existed national and or regional livestock breeding programs/genetic improvement plans according to objectives, adoption and impacts • Objectives of the breeding programs: geographical/agro-ecological zones, targeted species/breeds; program lifetime; and breeding objectives. • Level of implementation and adoption by stakeholders • To assess their impacts on genetic potentiality and economic performance of livestock, and therefore, social and economic impacts on breeders.
2. Technology, innovations, and interventions; and capacity building • To assess status of introduced and adopted innovations/intervention and their function in the breeding programs, e.g. identification and recording systems, reproductive technologies such as AI, MOET, IVF, etc. • Inventory of capacity building activities supported the establishment of the breeding program. • Identifying area(s) of priority in-need for capacity building and introduction of novel interventions and best practices.
3. Policy and Frameworks • Inventory of available policies/frameworks supporting sustainable breeding programs(s) on both MS and RECs levels. • Identifying areas in-need for developing / update of policies and/or frameworks.
4. Stakeholder conception of, organization and partnership in breeding programs • Assessment of livestock keepers local knowledge and prospective on their indigenous livestock resources; their adaptive characteristics to tolerate potential stresses and risks; application of breeding programs and included technologies and innovations; and best breeding practice considering climate-smart practices. • Screening existing and functioning stakeholder organizations that support the sustainable breeding programs. Assessment of stakeholder smart partnerships and participation; levels of partnerships and contributing partners; and benefits of partnership for different partners that support breeding programs for sustainable livestock production. • Assessment of equity of access to; contribution and participation in the implementation of breeding programs for different gender, social and economic groups.

- Assessment of sustainability measures in breeding programs, e.g. sustainable resource availability; market development and accessibility; development of niche-market; etc.
- Draw the road map for promoting the establishment of sustainable, and improvement of implemented breeding programs considering measures in 1-5, mentioned above.

According to the number of implemented breeding programs, the second phase will include conducting one or two case studies for each implemented breeding program applied for different livestock species/ breeds. The SWOT analysis will be performed, covering the measures (1-5).

The TOR for the exercise and for the selection of the experts have been finalized and ready to go, list of experts and CVs are available and being reviewed. The Stock-take exercise is planned to take place by Mid-December, 2018.

Sub-Activity 3.1.3.4. To support enhancing the role of breeder association and breeding companies, in the process of genetic improvement.

This sub-activity aims to build up capacity and provide continuous support for the livestock breeding stakeholders (breeder, breeder association, production associations, etc.) in implementing sustainable breeding program. The activity will take place when the analysis of stakeholder participation and smart-partnership results will be obtained from the breeding program stock-take exercise (3.1.3.1.). The sub-activity 3.1.3.4 will be shifted to 2019, after the stock-take exercise takes place, and results will be obtained.

R 3.2. Sustainable Best practice natural resource management developed and adopted

Activity 3.2.1. To undertake scoping assessments and studies to identify promising interventions needed to improve NRM, including climate-smart ones

Sub-Activity 3.2.1.1. Stock take studies, on regional level, to identify potential opportunities for interventions introduction and adoption, and/or upscaling for improving NRM.

The stock-taking activity aims to identify potential intervention and innovations, that has been successfully adopted within any implemented (or partially implemented) NRM program or strategy, for better management of natural resources in the 5 African RECs.

The overall objective of the stocktaking workshop is: to take stock of the current status of Natural Resource Management, NRM, in MS and RECs. The study will also cover objectives and level of implementation of NRM strategy/plan; gaps (needs) and opportunities, etc. The results will highlight the roadmap plan for the fulfilment of strategies for improvement NRM; and the availability of, and access to high-quality feed and water resources for sustainable livestock production system(s) in Africa.

Workshop Specific Objectives:

1. To undertake inventory study of implemented NRM programs in African MS and RECs.
2. Undertake a SWOT analysis on one or two case-studies of the implemented NRM programs, to assess their success, adoptability by, and profitability for stakeholder, and their roles in enhancing NRM, focusing on expected climate changes and climate-smart NRM practices.

3. Recommending successful NRM strategies for application within the African continent.
4. Identify gaps and opportunities and interventions needed for the adoption and success of the recommended NRM programs /strategies.

The stocktaking exercise will be performed in two phases. The first phase will focus on stakeholder conception and assessment of the implemented NRM; and to draw the road map for the sustainable NRM for sustainable livestock production in Africa, considering the following measures:

Table 13: *Parameters and measures that will guide the NRM stocktaking exercise*

1. Assessment the current status of sustainable NRM: 1.1 To assess sustainability of NRM on MS and RECs levels: • Sustainable management of land, water and livestock resources; Sustainable management of livestock feed resources to promote availability of, and accessibility to high-quality feed and water resources. • Assessment and control of feed adulteration, contamination with Aflatoxins; improvements of feed production, manufacturing, marketing and trade; availability and accessibility to credit/insurance support for feed production and trade chain; improving capacity for feed-crops storage and conservation (e.g. silos). 1.2 To assess the equitable access to natural resources for different gender, social and economic groups. 1.3 To assess the implementation of alternative or integrated investment opportunities in NRM
2. Technology, innovations and interventions/Capacity building in NRM The aim is to assess the current status and promote sustainable NRM through the introduction and adoption of research results, technological innovations and patents within the scope of climate-change and climate-smart practices. 2.1. Status on adoption of intervention associated with supporting MS and RECs capacity in feed production, conservation and utilization. 2.2. Identifying area(s) in-need for capacity building, introduction of interventions and best practices in NRM. 2.3. Improvements of marketing infrastructure, market information facilities and accessibility. 2.4. Introduction and adoption of climate-smart NRM.
3. Policy and Frameworks 3.1. Inventory of available policies/frameworks on sustainable NRM on MS and RECs levels. 3.2. Identifying area(s) in-need for developing/updating policies/frameworks for sustainable NRM.
4. Stakeholder organization and smart partnership 4.1. Screening functioning type(s) of stakeholder organizations (e.g. Coops, ranch-groups, community development centers, etc.) that support the sustainable NRM. 4.2. Screening the established partnership in the sustainable NRM, and determining means for improving smart-partnership and stakeholder involvement.
5. Sustainability of NRM strategies Assessment of sustainable NRM approaches, e.g. NRM availability and access to; awareness raising; market development and access to; development of niche-market; conservation of biodiversity; in addition to climate-smart NRM for livestock production.

The second phase will include conducting one or two case studies for each identified NRM strategy. A SWOT analysis will be conducted for each case, considering the 5 assessment measures above. The SWOT analysis results will indicate the impact of those strategies on sustainable NRM, and availability of, and accessibility to high-quality feed and water resources.

R 3.3. Access to quality feed and water enhanced

Activity 3.3.1. To facilitate the development of best practices for improved and sustainable utilization of water and feed resources in livestock production systems

Sub-Activity 3.3.1.1. Stock take to identify areas of intervention and best practice in feed and water resources management, under different production system in MS and RECs

This stock-take exercise has been merged with the one in (R3.2; sub-activity 3.2.1.1.), that planned to be

taking place by Mid-December 2018.

Activity 3.3.2. To support the production and utilization of quality-feed

Sub-Activity 3.3.2.1. To analyze issues of water and feed quality (e.g. feed adulteration, and feed contamination with aflatoxins, pasture-nematodes, etc.) in different MS and RECs, and to plan the road map for improving feed quality and control adverse practices

This sub-activities will be carried out as desk study and RECs-level stakeholder consultative Workshop for analysis the current situation on feed quality issue and proposing road map for controlling feed adulteration and contamination; and improving both feed and livestock products quality.

This study has been merged with the stock-take exercise in (R3.2; sub-activity 3.2.1.1.), that planned to be taking place by mid-December 2018.

Sub-Activity 3.3.2.2. To promote the establishment of continental "African Feed Quality Standards Association, AFQSA" to handle the issue of feed quality and standards control.

This sub-activity aims to promote feed chain stakeholders (policy makers, feed producers and traders; feed users/farmers, etc.) for the establishment of the "African Feed Quality Standards Association. Since this activity will be planned based on the stock-take exercise on "NRM, feed and water resources", it will be undertaken after getting the results from the stock-take on R3.2; sub-activity 3.2.1.1. Therefore, it has been shifted to the year 2019.

3.4 Result 4: Resilience of Livestock Production Systems strengthened

Result Objective: Under this activity the project will strengthen livestock early warning systems and disaster risk management

Outputs and Main Activities:

R 4.1: Livestock Early Warning Systems (LEWS) strengthened

R 4.2: Disaster Risk Management (DRM) enhanced

The following Sub-activities 4.1.1.1., 4.1.3.1., 4.2.1.1 and 4.2.1.2 have been merged in one stock-take exercise titled "'Taking stock of Livestock Early Warning Systems (LEWS) and Disaster Risk Management (DRM) programs for strengthening resilience of livestock production systems in African Member States and Regional Economic Communities.", that is detailed afterwards.

R 4.1: Livestock Early Warning Systems (LEWS) strengthened

Activity 4.1.1. To strengthen the capacity of LEWS in MS and RECs to effectively collect, manage and deploy early warning information

Sub-activity 4.1.1.1. To undertake stock take exercise of current LEWS in selected MS, for different types of potential disasters.

Activity 4.1.3. Identify smart partnership mechanisms to support timely disaster responses

Sub-Activity 4.1.3.1. Stock-take for identifying potential partnership and stakeholders in MS

R 4.2: Disaster Risk Management (DRM) enhanced

Activity 4.2.1. Promote the utilization of indigenous adaptive characteristics of AnGR for improved resilience, sustainability and Disaster-risk-management of the livestock production system

Sub-Activity 4.2.1.1. Stock take on the current status, gaps (needs) and opportunities for potential development of DRM

Sub-Activity 4.2.1.2. Perform a desk study and organizing a consultative workshop on available local knowledge and adaptive characteristics of indigenous AnGR and identification of Disaster Risk Reduction Tools and technologies

Objectives of the stock-take consultative Workshop (covering sub-activities 4.1.1.1., 4.1.3.1., 4.2.1.1 and 4.2.1.2)

The overall objective of the workshop is: to take stock of the current status of livestock early warning systems and disaster risk management programs implemented in the African MS and RECs; and to highlight the roadmap plan(s) for the establishment and improvement of LEWS and DRM for sustainable livestock production system(s) in Africa.

Workshop Specific Objectives:

1. To undertake inventory of LEW System and DRM plans implemented for strengthening resilience of livestock production systems in Africa; and to select one or two case studies for each implemented strategy or system.
2. To undertake a SWOT analysis on the case-studies on the implemented LEW systems and DRM programs.
3. Based on the SWOT analysis results, to identify successful LEW systems and DRM plans that support effective early warning and timely response to disasters and proper management of risks. Therefore those programs can be introduced and implemented in the African continent for strengthening resilience and sustainability of livestock production systems.
4. To identify gaps in, and opportunities for the implementation and adoption of those potential LEW systems and DRM plans, and therefore plan the road map for improving LEWS and DRM in Africa.

The stock-take exercise will be performed in two phases. The first phase will focus on analyzing the implementation status of LEW systems and DRM plans considering the parameters and measures in Table 14.

Table 14: *Parameters and measures that will be considered in undertaking the LEWs and DRM Stocktaking Exercise*

1. Inventory of currently existed livestock early warning systems (LEWS), and disaster risk management (DRM) programs. 1.1. Inventory of implemented livestock early warning systems' facilities on MS and RECs levels. 1.2. Inventory of implemented national and regional disaster risk management plans; phases of disaster risk they cover; partnership and timely response to disaster; smart tools and intervention included in the DRM plans, and indigenous livestock adaptive characteristics utilized in the DRM. 1.3. Assessment the level of implementation and adoption by stakeholders, and impacts.
2. Technology, innovations and interventions; and capacity building 2.1. Status on functioning innovations/intervention in the implemented LEWS and DRM plans. 2.2. Identifying area(s) of priority in-need for capacity building and introduction of novel interventions and best practices for LEWS and DRM under different production systems and agro-ecological zones in MS and RECs.
3. Policy and Frameworks 3.1. Inventory of available policies/frameworks on sustainable LEWS, and DRM on both MS and RECs levels. 3.2. Identifying areas of LEWS and DRM in-need for development / update of policies and/or frameworks for sustainable livestock production in Africa.
4. Stakeholder conception of, organization and partnership in LEWS and DRM 4.1. Assessment of animal keepers local knowledge and prospective on DRM; adaptive characteristics of indigenous livestock to tolerate potential risks; DRM-reduction tools and scope of actions; and best practice of DRM considering climate-smart practices. 4.2. Screening functioning type(s) of stakeholder organizations and their role in supporting DRM and LEWS. 4.3. Assessment of stakeholder smart partnerships and involvement and their benefits of partnership. 4.4. Assessment of equity of access to LEW systems and participation in DRM programs for different gender, social and economic group.

To draw the road map for promoting the establishment of novel, and improvement of implemented LEW systems and DRM programs considering measures 1-4 mentioned above.

The second phase of the take-stock will include conducting one or two case studies for the implemented LEW system and DRM plans. A SWOT analysis will be conducted for each case study covering the measures in 1-4.

3.5 Result 5: Technology Adoption in the LVC's Increased

Result Objective: Under this result area the project will aim at taking stock of existing technologies relevant to the livestock sector and encouraging the uptake of appropriate ones by stakeholders. It will also aim at enhancing the collection, storage, analysis and dissemination of appropriate animal resource data and information to stakeholders

Outputs and Main Activities:

R5.1 Adoption of modern technology to enhance production, productivity, value addition and competitiveness publicized

R5.1 Adoption of modern technology to enhance production, productivity, value addition and competitiveness publicized;

Activity 5.1.1: Inventorize the existing technologies across the value chains that enhance production, productivity, sustainability, climate resilience and value addition

Technology Uptake and Innovation in the African Dairy Sector

Live2Africa partnered with The Eastern and Southern AfricaDairy Association (ESADA) to host the 14th African Dairy Conference and Exhibition (AfDA). It focuses on the multiple challenges facing the African dairy industry with the aim of maintaining and improving the industry in a challenging regulatory environment, ensuring the maintenance of internationally acceptable health and hygiene standards in both the primary and secondary dairy industries and fostering the efficiency, expansion and profitability of our dairy sector in the international market place.

The Conference attracted over 2000 participants including exhibitors, presenters, investors, farmers and other sector actors from across the continent and globally who participated in farmer sessions, orientation to a large array of modern technologies and adoption strategies for improved efficiency and quality along the full dairy value chains, and in platforms for information exchange and to advocate for enabling policy and regulatory environments.

The three day event provided a powerful platform for engagement of sector actors on technology uptake and innovation in the African dairy industry. Live2Africa administered a questionnaire focused on five main aspects:

- Inventorization of currently used technologies in the dairy sector
- Identification of the primary effects observed due to poor uptake of technology in the livestock sector
- Identification of the primary drivers/causes of low/poor technology uptake in Africa especially within the small-holder dairy farms
- Establishment of the perceived risks factors associated with modern technologies by African dairy farmers
- Identification of a four pronged approach to drive technology uptake and innovations in the African dairy sector

The questionnaire was complimented by face to face interviews with selected respondents. A total of 57 respondents submitted their completed questionnaires. Most were from Kenya, others were from Rwanda, Tanzania, Uganda, Democratic Republic of Congo, Niger, Zambia, Mozambique, Senegal and Malawi giving a good continental scope.

The findings showed that generally respondents were not conversant with modern technologies used in the dairy sector and only managed to list a limited number of technologies (Table 15)

Table 15: *Modern technologies listed by respondents attending the 14th African Dairy Conference and Exhibition*

Production Technologies	Reproduction Technologies	Processing Technologies	Marketing Technologies
Silage production	Artificial Insemination	Bulking and Chilling	Packaging
Hay fodder bulking		Pasteurization	Social Media
Use of Concentrates		Milk dispensing	
Vaccination		Yoghurt production	
Pasture conservation		Cheese making	
Bio-gas production		Production of lactose free UHT milk	

Box 2: Respondents views of impacts and causes of low technology uptake and innovation in the African dairy sector and approaches that can enhance uptake and innovation

Impact of Low Technology Uptake and Innovation
Correspondents identified low productivity with a resultant increase in food and nutritional insecurity (40%) as the main impact of low technology uptake in the dairy sector. The other impacts identified included low profit margins translating into slow economic gains (26%), increase in environmental degradation (24%) and decreased efficiency in dairy production (10%).

Causes of Low Technology Uptake and Innovation
Respondents highlighted that the primary driver for low uptake and utilization of technologies is inaccessibility of relevant technologies due to high prices, and even where the technologies were available the high cost was a deterrent (30% and 25%, respectively). Poor advocacy strategies, and lack of technology knowhow and access to knowledgeable persons were cited, as was lack of functional technology uptake entry points.

Respondents emphasized the poor linkages between research and end users (29%), the weak institutional capacities and infrastructure in member states (22%) and dysfunctional/absent national extension services (21%) as key institutional constraints to technology uptake. Disarticulation of the policy environment, and or lack of an appropriate regulatory regimen, and poorly constructed national adoption strategies contributed to the low uptake of dairy technologies.

At a farmer level, poor technology uptake was equally apportioned to the farmer profile (age, gender, level of education), exclusion of small scale farmers from mainstream/ public services, lack of a market orientation, and poor farmer organization which doesn't allow farmers to benefit from economies of scale. The respondents felt that the greatest risks were uncertainty with the performance/ benefits of the technologies (40%), and possible side effects on animals and consumers (21%). Gender stigmatization (20%) and cultural beliefs and taboos (18%) played a large role in deterring farmers from utilizing modern technologies.

Way Forward to Enhancing Uptake of Technologies and Innovation in the African Dairy Sector: Four Pronged Approach
At the advocacy and awareness level, respondents cited establishment of farmer field schools (39%), where hands on participation, observation and learning is offered as the pathway that would be most beneficial. Other pathways of note were establishment of knowledge hubs for networking and information dissemination (34%) and access to centres of excellence that model best practice (27%).

In relation to the policy and regulatory environment, articulation of policies that deliberately support technology generation and innovation would have the highest impact (63%). This needs to be backed up by inclusive and harmonised national and regional policies to create an enabling environment for technology uptake and innovation (21%). Gender sensitive policy frameworks would also enhance uptake and innovation (16%).

In terms of capacity building and infrastructure support, respondents cited ICT and mobile technology as the greatest game changer (32%) as a platform for accessing, learning and capacitation. Technology apps have grown in popularity in the last decade. There is need to strengthen national extension services to the dairy sector (30%), as well as harness opportunities from farmer clustering, and strengthening of rural innovation systems.

Respondents felt that the greatest impact would come from bottom up, farmer generated/adapted technologies and innovation (41%), that empower farmers to actively lead in providing solutions. Other pathways would be formulation and domestication of national and regional frameworks (31%) and development and adoption of technology led business models for the diary sector.

The private sector led African Dairy Conference and Exhibition is not only the largest event on the dairy sector annual calendar on the continent, but also in Africa's animal resources sector, underscoring the fact that the dairy sector is one of the lead sectors in Africa's animal industries. The findings of the inventorying, which showed the huge technology and innovation gaps, were therefore very insightful. There is need for much greater effort to address the need for technologies and innovation to harness the potential of the dairy sector, and even greater efforts will be needed in other sectors. The recommendations from the exercise were:

- There is need for AU-IBAR to undertake a comprehensive stock taking exercise to identify the various technology in use across the livestock sector
- Strengthen strong partnership with the private sector to enable small-scale farmer access to subsidized prices of various technologies
- AU-IBAR to take up a lead role in strengthening National extension services in relevant sectors across priority value chains through technical and infrastructure support
- Formulate National and regional policies that are sensitive to the needs of the end users as opposed to being politically instigated
- Establish training centers preferably farmer field schools to enable technology uptake and knowledge transfer.
- Adopt a bottom-up approach in technology development to prompt a sense of ownership by the end users

Stocktaking Exercise for Result 5

One of the key project's focus areas is to enhance innovation, generation and utilization of technologies, capacities and entrepreneurship skills of livestock value chain actors. A consultative workshop has been organized to take stock of all existing technologies and highlight their aptness to the livestock value chains in Africa with key focus on documenting their advantages and disadvantages within the African context.

The outcomes of the consultative workshop included; (i) Inventorization of at least 10 technologies across the value chains for the various commodities (meat and live animals, milk and other dairy products, Eggs, Fish, Honey and other bee products); (ii) Identification of priority technologies and their strengths, weaknesses, opportunities and threats; (iii) Establishment of strategic entry points/interventions to enable the effective adoption of the recommended technologies; (iv) Identification of key stakeholders across the various livestock value chains. The information generated will be included in the value chain booklets to be drafted.

Activity 5.1.2 Establish regional platforms to promote technology development and transfer across the priority value chains

Africa is increasingly becoming a key player in acquiring, generating and applying knowledge to development challenges. Yet more needs to be done to make technology and innovation play its part in the quest for transformation and diversification of the African economies. Sustained support to help member States put in place a favorable technology transfer and innovation development environment to address member states pressing needs is required. The drive is to promote the growth of knowledge based economies for the African continent.

As part of providing leadership and coordination in the sustainable development of the continent's Animal Resources, AU-IBAR is implementing a 5-year project on "**Sustainable Development of Livestock for Livelihoods in Africa - Live2Africa**". The Live2Africa project gives effect to the Livestock development strategy for Africa (LiDeSA) and is aligned with Agenda 2063 development goals. One of the key project's focus areas is to enhance innovation development, generation and utilization of technologies, capacities and entrepreneurship skills of livestock value chain actors. Thus, the project seeks to establish Regional Technology and innovation incubation hubs in Africa (**A-TiChubs**). The impetus of the A-TiChubs creation is to provide creative spaces, infrastructural services, mentorship, intellectual property management, access to financial resources and networking opportunities for technology innovators, technology accelerators, agribusiness entrepreneurs, and technology entrepreneurs. The vision is that the A-Tichubs will be the centerpiece of revolutionizing technology, innovation, skills and promoting knowledge-based economies in the African livestock sector.

In light of this, a write-shop "**Development of business model for the establishment of regional Technology and Innovation Incubation hubs in Africa (A-TiChubs)**" was convened by AU-IBAR from 19th – 22nd November 2018 in Arusha, Tanzania. The consultative workshop was attended by a total of 35 participants who were drawn from selected Member States, Universities, Private sector, regional and International organizations amongst other key stakeholders. The meeting was officially opened by the Director of Veterinary Services, Professor Hezron Nonga.

The overall objective of the writeshop was to develop a draft business model for the establishment of regional Technology and Innovation Incubation hubs in Africa (A-TiChubs) with specific emphasis on; mapping the technology and innovation ecosystems, identifying key partners and stakeholders, formulating guiding principles on functionality and administration of the A-TiChubs as well as formulating step-wise strategic options to guide commercialization and skill transfer of novel technologies for the Animal resources sector.

The outcomes realized included development of four draft business models with various value propositions such as supporting Intellectual property rights (IPR) acquisition, offering mentorship programs, pitching and business skills training, investor identification, partnership development amongst others. An administrative structure was proposed with AU-IBAR as the governing body supported by the African technology and innovations incubators advisory committee (**ATIIAC**). The proposed committee will undertake the following functions; overseeing of incubatees selection, ensuring quality assurance, technical backstopping, mentorship and knowledge management. The writeshop also identified a vast array of potential host institutions and key stakeholders of the A-TiChubs. In addition, it was recommended that the formation of the African TiChub working group (ATWIG) to function as the think tank for the A-TiChub dynamic business model is paramount.

In conclusion, a hybrid continental business model will be coined based on the four draft business models developed for the A-TiChubs. It is envisioned that this hybrid business model for the A-TiChubs will drive Africa to greater heights in terms of promoting technology and innovation based economies in the Animal Resources sector.

3.6 Results 6: Access to inputs, services, markets and value addition increased

Result Objective: This result aims to enhance livestock marketing systems through strengthening and harmonizing livestock market information systems, reducing post-harvest losses, and improve access to quality inputs.

Outputs and Main Activities:

Output 6.1: Enhance access to formal marketing channels for selected livestock value chains

Output 6.2: Enhance Value addition and reduce post- harvest losses

Output 6.3: Streamline linkages among input and value addition actors to shorten value chains and enhance fair trade incentives

Output 6.4: Access to quality affordable inputs and services expanded

3.7 Result 7: AU-IBAR Continental Capacities Strengthened

(Proposed: Strengthened coordination capacities at continental, regional and national levels)

Result Objective: (To be reviewed)

Outputs and Main Activities:

Output 7.1 Better compliance in the institution related to internal audit, procurement and certifying rules promoted

Output 7.2 AU-IBAR capacities in ICT strengthened

Output 7.3 Capacities for project coordination strengthened

3.8 Cross Cutting Issues

Live2Africa will address a number of cross cutting issues including environment and climate change, animal genetic resources, gender and youth, nutrition, rights of indigenous communities, and public private partnerships. The Project seeks to mainstream the cross-cutting issues throughout the activities, but in some cases specific actions are warranted.

Environment and Climate Change

AU-IBAR participated in the Workshop on 'Using Science to Inform Low Emissions Livestock Policy Development and Implementation in East Africa' held at UNECA in Addis Ababa from July 2nd - 6th 2018. The workshop was organized by the Global Research Alliance on Agricultural Greenhouse Gases (GRA), the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Food and Agriculture Organization (FAO) and the World Bank. The workshop was attended by 85 participants from across East Africa and the world. The workshop Objectives were:

- Discussion on countries' ambitions for livestock development in the context of climate change, and to understand the challenges
- Showcase relevant ongoing work of the four organizations that is focused on: (i) Improving the efficiency of livestock production; (ii) reducing greenhouse gas emissions and enhancing resilience; and

(iii) strengthening national measurement, reporting and verification (MRV) for low emissions livestock systems
- understand how science underpins this work, including helping to support countries' Nationally Determined Contributions (NDCs)
- identify ways that the GRA, CCAFS, FAO and the World Bank can help build regional and national capacity and contribute to project implementation through tailored initiatives in the future

Live2Africa presented the scene setting paper 'The Role of Livestock in Sustainable Development in East Africa'. Other papers presented included pathways to low emissions livestock farming in East Africa; country objectives and trends of livestock production, production systems and climate change mitigation, National Determined Contributions (NDCs) and role of agriculture and livestock in Ethiopia and Kenya. These presentations led to an in-depth discussion about the future of pastoralism in East Africa, inequality and poverty reduction in the context of the livestock sector, the need for integrated efforts, and the need to move from Tier 1 to Tier 2 reporting of greenhouse gas emissions for all countries. This discussion on ambitions and challenges regarding low emissions livestock saw participants address key questions in relation to the livestock and environment objectives of their respective countries in a facilitated group session. The outcome of this session was a convergence of three overarching challenges and priorities across the region: MRV for low emissions livestock systems; Identifying options to reduce emissions in the context of the broader development and food security agenda and awareness raising of low emissions and climate-smart livestock systems

As a follow up, Live2Africa has had explorative discussions with three possible partners:
- Wolrd Bank: Dr. Pierre Gerber: explored possibilities of holding a similar awareness building workshop on low emissions livestock workshop at continental level
- Australian Centre for International Agricultural Research (ACIAR): Dr. Ndungu Leah, Regional Manager and Anna Okello visited Live2Africa for discussions on how to coordinate research and development efforts for an improved livestock feed sector in the East African region with pilot activities in Kenya, Tanzania and Uganda. Specific areas of interest include development of the livestock feed value chain as an input and service sub-sector for sustainable pastoral livestock production in East Africa: focus on inputs, appropriate technologies, business/accessibility models and rehabilitation of rangelands: focusing on inputs, models for service provision, capacity development, governance frameworks, economic and environmental returns

The approach would be identification of appropriate technologies and capacity development, investments to catalyze the growth of the feed industry and rangeland development, decision support and policy reforms: identification of best practice, implementable models, and policy options that can be up-scaled. This would build on or upscale Live2Africa efforts.
- Global Research Alliance on Agricultural Greenhouses Gases: discussions with Hayden Montgomery, Special Representative centered on options for creating an information portal and database in ARIS to enable Member State decision making on livestock feeds and foraging, move from Tier 1 to Tier 2 reporting on greenhouse gases, and for monitoring purposes.

Gender and Youth

In line with the recommendations from the 1st Meeting of the Live2Africa Steering Committee, Live2Africa established two networks that will provide a platform for women and youth to own and drive their own more meaningful and increased participation in the animal resources sector.

Establishment of the African Women in Animal Resources Farming and Agribusiness Network (AWARFA-N)

Structural constraints still hinder the meaningful recognition and reward of women's significant role and contribution to the animal resources sector, and their access to equitable benefits from their labor and efforts in the sector. Seventy women from thirty-two Member States of the African Union were convened by the African Union-InterAfrican Bureau for Animal Resources (AU-IBAR) under the Live2Africa Project with funding from the European Union (EU) to establish the African Women in Animal Resources Farming and Agribusiness Network (AWARFA-N).

The meeting ommenced with Regional Consultations on 23rd and 24th July, under the theme 'Towards Equity in Investment and Governance in the Animal Resources Sector'. This fed into the Pan-African Conference on Veterinary Education Establishments, Veterinary Statutory Bodies and Agri-Business Networks of Women and Youth in the Animal Resources Sector on the 25th to 27th July, that met under the theme 'Unifying Africa to Drive a More Dynamic and Inclusive Animal Resources Sector for a Prosperous Future'.

The women shared success stories that underscored women's ability and capacity to improve their participation and profile in animal resources for both livelihoods and agri-business. The stories highlighted entry points, and opportunities for elevating women's participation and contribution through access to innovative partnerships, tailored financial and insurance products and access to capacity development and technologies, and the benefit that comes from enabling policies, legislative and regulatory frameworks.

AWARFA-N provides a platform to promote more meaningful and beneficial participation of women in animal resources for resilient and sustainable livelihoods, and secondly to drive a greater orientation of women into competitive and profitable agri-business. The mission of the continental network was agreed as An Apex Pan-African network to promote transformation and greater investment in women led animal resources farming and agribusiness. Recognizing that the animal resources sector is multi-stakeholder, the membership of the continental network was founded on eight (8) clusters Farmers; Processors and Traders; Public sector (governments), Financial Partners; Services Providers; Media, Communication and ICT; Advocacy and Lobbying Groups; Academia, Capacity Building and Research; and Development Partners. Members of the Executive Committee were selected in a process that embedded regional balance. The draft statutes of AWARFA-N were endorsed with amendments. Regional and continental networks were established (see Table 16 below).

Table 16: *Stakeholder clusters and representation on the Constitutive Executive Committee of the Continental AWARFA Network*

Stakeholder cluster	Representation	No	Region	Name/ Organization or Company	Office Bearer continental network
Representative of the North Africa Network	President	1	Northern Africa	Sonia Bedhiaf-Romdhani, Senior Researcher, INRA-Tunisia, Animal Genetics	President
Representative of the Central Africa Network	President	1	Central Africa	Beyene Ateba Epse Baliaba	Vice President
Representative of the Eastern Africa Network	President	1	Eastern Africa	Alice Kabayo	
Representative of the Southern Africa Network	President	1	Southern Africa	Annie Chekwe Kabayi,	
Representative of the West Network	President	1	West Africa	Khady Fall Tall	
Farmers	Representatives of Associations	1	Central Africa	Biuma Rosalie, Federation de Paysans Producteur Agricole de Kinshasha	
		1	Eastern Africa	Monica Kagya, Director, Environmental, Human Rights Care and Gender Organization	
Processors and Traders	Companies/ Cooperatives	1	Southern Africa	Reithabetse Makoa, Mapoteng Dairy	Vice-General Secretary
Financial Partners	Companies and Institutions	1	Eastern Africa	Cecilia Rague Kaisha, CEO Underwriting Africa	General Secretary
Service Providers	Companies	1	North Africa	Rachid Messaouda, CEO, Express Fish	
Public Sector Actors	Ministries, Agencies and Institutions	1	West Africa	Rev. Lydia Sesay, Livestock Division, Ministry of Agriculture, Sierra Leone	Treasurer
Media, Communication and ICT	Companies	1	Southern Africa	Malawi – To Be Identified by Patricia Mayuni	
Advocacy and Lobbying Groups	Organizations	1	West Africa	Solange Zawadi, Trust Africa	
Development Partners	Organizations	1	Central Africa	Dr. Khady Diouf, CORAF	
Academia, Capacity Builders and Research	Institutions and Individuals	1	North Africa	Naglaa Al Ahmady Gazala, Institute of Plant Protection Research, Bee Production Unit, Cairo Egypt	

Regional priorities were identified and informed the synthesis of the continental priorities, which were commuted into the five advisory/ Expert Committees as follows:

- Advocacy for Facilitative Infrastructure that is appropriate for women, led by Trust Africa (Continental) and CCARDESA (Southern Africa)
- Harmonization of policy, legal, regulatory, institutional/ implementation frameworks, led by Food Rights Alliance (Eastern Africa)
- Capacity Development, Incubation and Knowledge Transfer to be led by NRA Tunisia, North Africa Extension Institute, INRA Morocco, Maghreben Union of Apiculture, Union Apiculture Egypt and

CORAF
- Promotion of Intra and inter regional trade led by EAFF, BWA
- Financing for Animal resources related initiatives led by SADC and NEPAD

AU-IBAR will provide the initial secretariat of the continental AWARFA-N. The women highlighted the need for sustainability and therefore it was agreed that the regional networks will be hosted by the Regional Economic Communities.

In order to catalyze the process of resource mobilization, the Regional networks outlined concept notes and will be actively involved in fundraising to ensure that they have resources to meet their objectives. To ensure that the Network is sustainable at national, regional and continental level the women recommended key actions for the Post Cairo Road Map:
- Support for establishment of the national and regional networks from AU-IBAR and the RECs. The networks should also partner with existing similar and relevant networks and support institutions, and professional bodies.
- The Executive Committee will develop and integrate the input from the Constitutive General Assembly as an Action Plan for the next four years
- Focused capacity building in agri-business and leadership skills
- Support for gathering and analysis of data and information sharing
- Sustained evidence based advocacy

Key actions for Live2Africa support are:
- The Network registered and endorsed by the AU Summit
- A continental secretariat established and hosted by AU-IBAR
- RECs supported to enhance their coordination role and backstopping to Member States
- Governance and management meetings supported
- Development of a five year Strategic Plan and an Action Plan supported
- Development of an Advocacy Plan and a Resource Mobilization Plan supported
- A continental database of women in animal resources farming and agribusiness, and a monitoring system developed
- Capacity development of women in animal resources farming and agribusiness supported at all levels through sub-delegation

Establishment of the African Youth in Livestock, Fisheries and Aquaculture Incubators Network (AYL-FAIN)

Live2Africa supported the establishment of a continental youth network that will be the leading forum for supporting investment and business start-ups in livestock, fisheries and aquaculture the African Youth in Livestock, Fisheries and Aquaculture Incubators Network (AYL-FAIN) from 25 to 27 July 2018 at Safir Hotel in Cairo,Arab Republic of Egypt..This network is envisioned to contribute to reducing unemployment in a continent where 400 million youth make up the majority of the population, but over 40% are either unemployed or underemployed. Within the Network, there are already young people who are engaged in viable enterprises (e.g. in cattle rearing and ICT) that are creating jobs for other youths, demonstrating that

the possibilities for youth are immense.

Prior to the conference, an incubation management Training of Trainers programme was facilitated by the African Agribusiness Incubators Network (AAIN) from 23 to 24 July 2018 as part of the partnership arrangement between AU-IBAR and AAIN. The objectives of the conference were to adopt operating procedures including statutes of AYL-FAIN, develop regional business plans and elect regional, continental executives and to launch AYL-FAIN. The Conference was attended by 70 youth from 44 African Union member states from across Africa. The members of AYL-FAIN pledged to use the network as a spring board for promoting inclusive youth engagement in Africa's Animal Resource Sector for job and wealth creation. They stated their readiness to engage at the national and regional levels to recruit young people on board, and to initiate the formation of national youth networks in their respective countries.

Operational and functional national AYL-FAIN networks are critical to the effectiveness of the continental network, and therefore the youth made the following recommendations:

- Respective Ministries responsible for Animal Resources should facilitate the establishment and official recognition of national AYL-FAIN chapters.
- The leaders of Veterinary Education Establishment should support the AYL-FAIN by providing a relevant and dynamic education and training that will enable youth competiveness for rapid transformation of the livestock sector
- Veterinary Statutory Bodies to continue providing the enabling policy and institutional environments for inclusive integration of the youth into animal resource value chains.
- AU-IBAR and partners to support the establishment of Regional Incubation hubs and Small Scale Incubation Hubs across the continent to drive the job creation agenda of AYL-FAIN.
- Development partners to engage and support the youth in business Incubation, value addition and access to markets.

Key actions for Live2Africa support of AYL-FAIN are:

- The Network registered and endorsed by the African Union Summit
- Youth desks/ secretariats established and operationalized at the continental and regional levels
- Governance and management meetings supported
- Development of hubs and national networks supported in 15 Member States
- The development of a five year investment plan and strategy supported
- Development of technology platforms supported
- A database of youth in agribusiness established
- Capacity development supported through sub-delegation

4. Report Against Logframe Indicators

The draft Logframe and Indicators are presented in Annex 1. Tracking will commence once the activities and indicators are approved by the Project Steering Committee.

5. Communication and Visibility

5.1 Logo and Branding:

A logo and a branding brief were developed for the Live2Africa Project in line with African Union rules and regulations

5.2 Webpage Development:

Content for the webpage will be developed on approval of the reformulated activities.

5.3 Framework Communications Contract:

The process of developing a framework communications contract for the Live2Africa Project is underway. It will be informed by AU-IBAR's Communication strategy and the Communication and Visibility Manual for European Union External Actions.

6. Monitoring, Evaluation and Learning

M&E Capacity strengthening: The monitoring and evaluation function of the Live2Africa project was strengthened through the recruitment of am M&E expert who started in July 2018. The expert has done the ground work necessary for enabling implementation progress tracking. Key monitoring and evaluation activities carried out during the period under review include the development of a clear results framework, theory of change, review of project indicators and development of tools, templates and mechanisms for effective progress tracking. Key deliverables for the period under review are discussed hereunder

Review of project indicators at all levels. Working closely with the project team, all project indicators (Impact, outcome and Output) for the Live2Africa were reviewed to be in line with the SMART criteria. The review was triggered by the need to ensure measurability and relevance. In order to enable the project team to track project implementation schedule easily, activity targets were also set and included into the indicator tracking table. Tracking indicator and performance targets helps the project team to easily review and control the project key aspects of the project schedule.

Where readily available or obtainable from secondary sources, baseline figures were updated in the indicator tracking tool. For baseline figures that were not readily available or obtainable from secondary sources a plan was put in place to obtain them at a planned stock tacking exercise which is planned for the Q1 2019. There are other baseline figures which can neither be obtained from secondary sources or from the stock tacking exercise, a plan was put in place to establish them through sample surveys, this will be done as soon as priority value chains and priority technologies the project will focus on are defined.

Development of monitoring and evaluation tools: In order to facilitate implementation progress and reporting the following tools were developed for the Live2Africa Project:

Indicator Performance Tracking Tools (IPTT) - This tools contains all agreed on indicators and targets for the project at Impact, outcome output and activity levels. It is a dashboard which can be used to assess

implementation progress as well as progress to attainment of key performance indicators. To ensure consent consistent update of the tool, quarterly review sessions have been scheduled with the project team members. The first review session with the first review session scheduled for the end of Q4 2018.

Monitoring Guide: A monitoring checklist was developed to guide field monitoring activities. The checklist have contains guiding questions on conducting field monitoring for activities, processes, outputs and outcomes. The guide will be useful in ensuring monitoring by the M&E team is carried out in a standard fashion, and is able to easily and effectively collect required data and information

Monitoring and Evaluation Workplan: An M&E workplan for the remaining part of the project and a detailed 2018 workplan was developed. If implemented successfully the monitoring and evaluation workplan has factored in review sessions and monitoring activities which will facilitate learning and adaptive management.

Monitoring and evaluation framework document: a monitoring and evaluation framework which contains all the tools, processes and templates to be used for monitoring and evaluation of Live2Africa Project was developed. Implementation of the framework commenced in Q4 2018

Results Oriented Mission: A Results Oriented Monitoring Mission (ROM) commissioned by the EU was carried out to review to review the project design, logical linkages and the contribution of different result areas to attainment of overall goal of the project. Key recommendations from the monitoring mission where related to the monitoring and evaluation function were;

i. Review the theory of change for the project to clearly demonstrate the linkages between the different result areas
ii. Review the key performance indicators of the project with a view to rationalize the numbers in order to reduce the monitoring and tracking burden

7. Challenges and Way Forward

7.1 Challenges in Project Implementation

- A significant time lapse between the conceptualization of the Project and its start. The livestock sector is dynamic and the context has changed significantly since 2015. This warrants are review of the Project activities, as was recommended by the 1st Meeting of the Project Steering Committee
- There was a protracted recruitment of the Project Experts hence delay commencement of in implementation of activities
- The Project Team made concrete proposals to review the activities, however, these cannot be instituted until the feedback from the Results Oriented Monitoring Mission are received and the proposals are endorsed by the Project Steering Committee. The Project has therefore constrained itself to implementation of relevant activities within the original Project design.

7.2 Way Forward

The Live2Africa Project is both exciting and challenging: LiDeSA is in its 3rd year of implementation of a 20 year period i.e., 2015-2035. The Live2Africa Project runs between 2017-2021, i.e., from the 3rd to the

7th year of LiDeSA, which in essence means AU-IBAR needs to start to showcase some tangible results for the implementation of the Strategy towards the desired transformation of Africa's livestock sector. It is fundamental that Live2Africa actions are catalytic (what is done, priorities, how and in which sequence) to provide impetus to stimulate and galvanise momentum for the envisioned growth in commercialization and transformation of the livestock sector.

The big challenge is in the time left, which constrains the Project to make more deliberate efforts, with quick wins to begin to provide early evidence, flagships that will deliver strong outcomes for commercialization and transformation and building a foundation realizing that change over the remaining 13 years of the LiDeSA. Live2Africa must therefore take a Programmatic approach to contribute in the period of the existence of the Project, but have impact beyond the Project.

Live2Africa will therefore take the following actions between December 2018 and end of February 2019:

- Refine the Live2Africa Theory of Change to define catalytic actions for driving commercialisation and transformation of the Africa's livestock sector: generate a narrative that will frame Live2Africa's actions
  - Define the targets and the beneficiaries for commercialization and transformation that the Project will be responsible for achieving or making a contribution towards achieving
  - Identify what constitutes catalytic actions and interventions in Africa's livestock sector
  - Articulate how to deliver the catalytic effect.
- sequencing of actions and interventions
- the delivery channel
- which stakeholders should be targeted/partnered with
- develop a framework to support Member States and RECs to develop prioritized and sequenced strategies for implementing LiDeSA
- Prioritization of livestock value chains:
  - Document the existing priority value chains in RECs and MS. Identification of whose priorities, the progress made, challenges, constrains and gaps
  - Define a framework to support consensus building for selection of five priority value chains that are most amendable to demonstrating the desired change
- Stocktaking Exercise to define the niche of Live2Africa: its best comparative advantage for delivering a catalytic impact in the selected value chains in the context of other past, on-going and planned initiatives
  - Stocktaking Exercise to assess what has been done, exists currently and is planned
  - Rationalization of actions and interventions so that they have an additive contribution for a magnified and joint up impact that ensures convergence across the Results
- Sub-delegation for enhanced delivery based on the AU-IBAR sub-delegation manual
  - Consultations to ensure sustainable focal points in MS and RECs
  - Articulate a position on utilization of strong/existing and weak/emerging partners in the light of the focus of building systemic capacity
- Present a rider for endorsement by the Steering Committee to modify the Project for relevance, coherence, impact and sustainable outcomes
- Complete the planning process: refining the implementation framework, budget and procurement plans
- Deliver on the quick wins that are based on activities from the original Results Framework that remain relevant

Live2Africa will also undertake a number of activities to enhance Project management, strengthen coordination, and create strong awareness and visibility of the Project

- Training of Project Team on project management methodology (Prince 2), Project management toolkit (PMP) and project management software (MS Project 2013)
- Project Charter: clarifying key stakeholders, roles, responsibilities and linkages. This will include governance structures, strategic partners, and development of an implementable and sustainable paradigm for focal persons in Member States and working with RECs
- Communication and visibility: establishment of the Live2Africa web portal and institution of a framework communication contract and
- Documentation and archiving: establishment of the Project Knowledge Management System and a project share folders

8. Conclusions

The reporting period January 2017 to October 2018 was the initiation and formative period for the Live2Africa Project. The lapse of time between Project conceptualization and start, delay in commencement of implementation due to a protracted recruitment process was significant. Although the Project has been able to deliver on activities especially under Result 2, and a limited number in the short time since the Project Team was constituted in June-August 2018, this warrants a review of Project activities for relevance and greater coherence, as was recommended by the Project Steering Committee.

In line with this, and informed by the preliminary feedback from the Results Oriented Monitoring Mission, in the short term the Project will focus on articulation of its catalytic actions, identifying priority value chains, and interventions under each Result that will contribute to a joint up magnified impact. The Project Team will undertake a number of activities to enhance project management, strengthen coordination and create strong awareness and visibility of the Project.

Annex 1: Draft Live2Africa Logframe Indicators

Results Chain	Proposed Indicators	Baselines	Targets				Means of Verification	Assumptions and Risks
			End Project	2019	2020	2021		
Outcome 1: Investment in livestock value chains increased.								
Output1.2: Policies, regulatory frameworks and strategies to enhance LVC performance publicised.								
	# of RECs/livestock policy hubs to formulate regional policies on technology development, uptake and transfer						AU-IBAR M & E Reports	
	# of member states national assessment on existing technology development, uptake and transfer policies undertaken	0	20	10	5	5	AU-IBAR Project reports; M & E Reports	
	# of RECs supported to formulate harmonized technology policies/regulations	0	4	2	2		AU-IBAR Project reports; M & E Reports	
	4 Regional policies on technology development, uptake and transfer published	0	4	2	2		AU-IBAR Project reports; M & E Reports	
Outcome 2: Animal health delivery services improved.								
	level (index) of PVS competencies Level of relevant PVS competencies (The base line for the relevant competencies will be itemized from self-assessment)						OIE, FAO (delete) Reports	MS willling to implement and provide resources required improvements. MS and donors willing to provide support
Output 2.1: PVS competencies strengthened.	1. # of MS whose level of relevant PVS competencies have improved.	0	12	0	0	12	AU-IBAR M & E Reports	
	# Continental Framework for animal disease emergency fund developed and adopted	0	1	1	0			
	# of MSs supported to carry out PVS self assesment	0	6	3	3		AU-IBAR M & E Reports	
	# of MSs supported to review veterinary legislation	0	6	3	3		AU-IBAR M & E Reports	Willingness of the MS to undertake the review
	# of MSs supported to develop strategic plans	0	12	6	6	0	AU-IBAR M & E Reports	Willingness of the MS to develop the strategic plan
	# of African Experts trained on PVS Gap Analysis	8	18	12	6		AU-IBAR M & E Reports	OIE will cooperate with AU-IBAR to conduct the training
	# of leaders and prospective leaders who have been trained on veterinary leadership and governance	0	70	30	30	10		
	# MSs supported to respond to disease outbreaks.	2	7	2	2	1	AU-IBAR M & E Reports	
	# of simulation exercise conducted on emergency response	0	1	1	0	0	AU-IBAR M & E Reports	
	# of MS and RECs supported to strengthen their animal disease surveillance and response	0	12	7	5	0		
	# of MSs supported to institutionalise OH with a focus on rift valley fever, rabies and AMR	0	12	7	4	1	AU-IBAR M & E Reports	
	# of continental stocktaking undertaken on One Health	1	2	1	0			

Results Chain	Proposed Indicators	Baselines	Targets				Means of Verification	Assumptions and Risks
			End Project	2019	2020	2021		
Outcome 3: Animal production, productivity and ecosystem management enhanced.								
	Profitability index of the livestock sector	current profitability index	% change in profit-ability in-dex value (ratio)				FAO & National economic/ development reports of MS	MS willing to implement studies on genetic improvement and ecosystem management; and to implement developed strategies
	Stakeholder perception on improvement of livestock production efficiency by 2021	Baseline survey with stakeholders in MS and/or Stock taking report	Base-line survey results				A report prepared from data direct stakeholders structured questionnaire	Stakeholders are motivated for improving productivity and adoption of introduced interventions
	Change in national herd size and production	Values published in official National census, reports & Scientific reports	% increase in national herd size in supported MS				Official national census; FAO; AU-IBAR M & E Reports	availability of accurate national census; availability of other inputs for the system
Output 3.1: Genetic potential and performance of animals improved and breeding strategies supported								
	# MS supported to adopt reproductive technologies utilized for breeding (Genetic improvement)	0	15	4	8	3	AU-IBAR M & E Reports	acceptance/adoption of breeders (farmers) and other stakeholders; availability of national technical support, coordination with focal points
	# Capacity building events (training, extension events, WS/meetings, etc) supporting knowledge transfer and capacity building in Regional GBs function towards genetic improvement.	0	10	3	6	1	AU-IBAR M & E Reports	availability of capable human resources and infrastructure, coordination with focal points
	# regional gene banks supported to enhance their contribution in AnGR utilization	0	10	3	6	1	AU-IBAR M & E Reports	availability of capable human resources and infrastructure, coordination with focal points
	# Different stakeholders (cooperatives, breeder association and breeding companies) involved in the process of genetic improvement.	stock taking reports on stakeholders and partners	Change in % and type of stakehold-ers/part-ners				AU-IBAR M & E Reports	Proper coordination with regional and national focal points of MS
	# projects funded and impact-assessed for genetic improvement of livestock production	0	10	3	7	0	AU-IBAR M & E Reports	Availability of partners and providing efficient capacity building
	# MS adopted the National Strategy Action Plans (NSAPs)	5	26	7	10	4	National focal point reports & AU-IBAR M & E Reports	prober coordination between NSAPs-MS and non-NSAPs-MS, coordination with focal points
Output 3.2. Sustainable Best practice natural resource management (NRM) developed and adopted								
	# RECs and MSs supported to promote climate smart practices	0	15	5	7	3	AU-IBAR M & E Reports	availability of motivated stakeholders, coordination with focal points
	# RECs and MSs implements NRM best practices	0	10	3	6	1	AU-IBAR M & E Reports	availability of motivated stakeholders, coordination with focal points

Results Chain	Proposed Indicators	Baselines	Targets				Means of Verification	Assumptions and Risks
			End Project	2019	2020	2021		
	# proposal funded and impact-assessed proposal, aiming to test and enhance adoption of sustainable NRM management	0	10	4	6	0	AU-IBAR M & E Reports	Availability of partners; high-merit of the proposal; and providing of efficient capacity building
	# climate-smart practices adopted by stakeholders in targeted MS.	0	5	0	5	0	AU-IBAR M & E Reports	availability of motivated stakeholders, coordination with focal points
Output 3.3. Access to quality feed and water enhanced								
	Production of regional reports on analyzing major issues of water and feed quality and road map for improving feed quality and control adverse practices	0	5	1	4	0	AU-IBAR M & E Reports	coordination w with stakeholders and availability of data
	The establishment of the " African Feed Quality Standards Association' achieved.	0	African Feed Quality Standards Asso-ciation estab-lished				AU-IBAR M & E Reports	Motivation of stakeholders for production and utilization of high-quality feeds
	# Introduced and adopted feed and water conservation and utilization practices/ intervention	0	8	4	4	0	AU-IBAR M & E Reports	availability of inputs in MS, coordination with stakeholders
Outcome 4: Resilience of livestock production systems strengthened.								
	% reduction in animal losses due to disasters (diseases, drought, floods) throughout proper management of risks	stock taking reports, National reports & focal points reports	% reduction of animal losses				Animal Protection reports; FAO, AU-IBAR M & E Reports	MS adoption of proposed innovations/ strategies and determination of partnership
	# MSs and RECs supported to strengthen Livestock early warning systems and proper risk management	0	15	3	9	3	AU-IBAR M & E Reports	Stakeholder are motivated for LEWs and DRM adoption
Output 4.1: Livestock Early Warning Systems (LEWS) strengthened.								
	# RECs and MSs supported to develop regional strategies on smart partnerships and timely disaster response.	0	15	3	9	3	AU-IBAR M & E Reports	Stakeholder are motivated and availability of inputs
	# capacity building activities (training hours, demos, extension events) for MS stakeholders on LEWS	0	30	10	20	0	AU-IBAR M & E Reports	Stakeholder motivation and availability of inputs
	# Developing a "Regional strategies" on early warning' planning and functioning; partnership and timely disaster response, including resource mobilization.	0	5	1	3	1	AU-IBAR M & E Reports	Coordination with MS, focal points and other stakeholders
Output 4.2: Disaster Risk Management (DRM) enhanced.								
	Production of regional cost-benefit analysis of AnGR DRM and introduction to policy maker and high-executive level in the AnGR sector	0	5	2	3	0	AU-IBAR M & E Reports	Availability of data and coordination with focal points and stakeholders

Results Chain	Proposed Indicators	Baselines	Targets				Means of Verification	Assumptions and Risks
			End Project	2019	2020	2021		
	Developing a continental strategy on best utilization of local knowledge and adaptive characteristics of AnGR for improving production system resilience and risk management developed	0	1	0	1	0	AU-IBAR M & E Reports	Availability of data and coordination with focal points and stakeholders
	Production of a manual on available local knowledge and adaptive characteristics of indigenous AnGR and identification of promising Disaster Risk Reduction Tools and technologies.	0	1	0	1	0	AU-IBAR M & E Reports	Availability of data and coordination with focal points and stakeholders
	# MSs /RECs supported to implement the Strategy on best utilization of local knowledge and adaptive characteristics of AnGR for improving production system resilience and risk management	0	10	2	5	3	AU-IBAR M & E Reports	Coordination with MS, focal points and other stakeholders
	# capacity building activities (training hours, demos, extension events) for MS stakeholders on DRM	0	30	10	20	0	AU-IBAR M & E Reports	Stakeholder motivation and availability of inputs
Outcome 5: Technology adoption in the LVC increased.								
	Change of technology uptake and utilization rates by stakeholder (farmers,Ministry extension officers, co-operative memebers,pastrolist communities, Youth and women)	Baseline survey to be conducted	Increased technology uptake and utilization by targetted stakeholders				AU -IBAR Stakeholder Survey Report	1.Identified technologies are suitable, affordable and profitable to stakeholders
Output 5.1: Adoption of modern technology to enhance production, productivity, value addition and competitiveness publicised;								
	# of value chain booklet documenting priority environmentaly friendly and climate friendly technologies for Africa published	0	1	1			AU-IBAR project reports	
	# of technology and innovation incubation centres (TiCHUB) established	0	4	1	2	1	AU-IBAR Project reports; M & E Reports	
	Continental innovation platform established	0	1	1			AU-IBAR Project reports; M & E Reports	
	#technology action plans (TAPs) for prioritized technologies developed and disseminated	0	1	1			AU-IBAR Project reports; M & E Reports	
	# of regional Pastrolist Field Schools (PFS) established	0	3	1	1	1	AU-IBAR Project reports; M & E Reports	
	# of initiatives supported to upscale prioritized technologies	0	10	4	4	2	AU-IBAR Project reports; M & E Reports	Unforseen delays in AU-IBAR procurement processes and execution
	# of documentary on successful uptake of priority technologies in supported initiatives	0	1			1	AU-IBAR Project reports; M & E Reports	
	# of technology and innovation exhibition/fair organized	0	1		1		AU-IBAR Project reports; M & E Reports	

Results Chain	Proposed Indicators	Baselines	Targets				Means of Verification	Assumptions and Risks
			End Project	2019	2020	2021		
	# of training workshops targetting member states extension officers	0	2	1	1		AU-IBAR Project reports; M & E Reports	
	# of lessons learnt handbook on livestock extension services in Africa published	0	1			1	AU-IBAR Project reports; M & E Reports	
	# of centres whose insititutional infrastructure upgraded	0	3	1	1	1	AU-IBAR Project reports; M & E Reports	Unforseen delays in AU-IBAR procurement processes and execution
	#of networking App for access to microfinace support systems and technology suppliers specific to small-holder farmers developed/ adopted	0	1		1		AU-IBAR Project reports; M & E Reports	
	A Continental innovation hub developed and operationalised	0	1		1		AU-IBAR Project reports; M & E Reports	
	bi-annual newsletter on available modern technologies and innovations including success stories in Africa published	0	2	1	1		AU-IBAR Project reports; M & E Reports	
Output 5.2: Animal resources knowledge enhanced;	# of ARIS modules (trade & marketing; animal production and animal health) developed	0	3		3		AU-IBAR Project reports; M & E Reports	
	Existing Livetsock Management Information Systems (LMIS) in Africa mapped	0	1		1		AU-IBAR Project reports; M & E Reports	
	A Livetsock Management Information System (LMIS) model developed	0	1		1		AU-IBAR Project reports; M & E Reports	
	A harmonized data visualization system developed and operationalized	0	1		1		AU-IBAR Project reports; M & E Reports	
	# of training workshop on developed modules and data visualization system	0	1		1		AU-IBAR Project reports; M & E Reports	
	Relevant Animal Resources management software and application across the value chains inventorized	0	1	1			AU-IBAR Project reports; M & E Reports	
	# of training of stakeholders on existing mobile and ICT applications	0	1		1		AU-IBAR Project reports; M & E Reports	
	# of MS and RECs portals created	0	62	20	30	12	AU-IBAR Project reports; M & E Reports	
Outcome 6: Access to inputs, services, markets and value addition increased.								
Outcome 7: AU-IBAR continental capacities strengthened								

Annex 2: Detailed Plan for 2019

Result/ Activity and Subactivities	Output	Q1	Q2	Q3	Q4
R1.2 Policies, regulatory frameworks and strategies to enhance LVC performance publicized	**Output1.2: Policies, regulatory frameworks and strategies to enhance LVC performance publicised.**				
Activity 1.2.5 Support the formulation of harmonized regional policies on technology development, uptake and transfer					
Sub Activity 1.2.5.1 Undertake national assessments of existing technology development, uptake and transfer policies and identify gaps					
Sub Activity 1.2.5.2 Support RECs to formulate regional policies on technology development, uptake and transfer					
Sub Activity 1.2.5.3 Publish and disseminate validated regional policies on technology development, uptake and transfer					
R 3.1: Genetic potential and performance of animals improved and breeding strategies supported	**R 3.1: Genetic potential and performance of animals improved and breeding strategies supported**				
Activity 3.1.1: Operationalize regional gene banks and centers of excellence					
Sub-Activity 3.1.1.1: Identifying current status of regional gene banks (results of the AnGR project)		x	X		
Sub-Activity 3.1.1.2: Support knowledge transfer/ exchange and capacity building in Regional GBs, and promote coordination between regional and national GBs function and management towards genetic improvement.		x	X	x	x
Sub-Activity 3.1.1.3: Support pilot projects for the enhancement of GBs rule in livestock genetic improvement (investment packages)		x	X	x	x
Activity 3.1.2: Support the implementation of National Strategic Action Plans (NSAPs) on AnGR (utilization) in Member States centers of excellence					
Sub-Activity 3.1.2.1: Carry out desk study and consultative meeting on the 21 countries supported for establishment of NSAPs and current status of implementation (results of the AnGR project); and Support the coordination between the 5 MS fully implemented the NSAPs with other MSs.			X	x	x
Activity 3.1.3: Support implementation of breeding and conservation programs for sustainable utilization and management of AnGR					
Sub-Activity 3.1.3.1: stock take (assess the current status) of MS and RECs breeding objectives and programs for different AnGR, and the level of implementation achieved, drawbacks, obstacles, etc.		x			
Sub-Activity 3.1.3.2: Promote MS and RECs activities and pilot proposal aiming to improve the utilization of basic genetic improvement tools (e.g. identification and recording), and promoting breed-based census.			X	x	x

Sub-Activity 3.1.3.3: Support the adoption of reproductive technologies utilized for breeding (genetic improvement) in MS and RECs.		x	X	x	x
Sub-Activity 3.1.3.4: Support enhancing the role of breeder association and breeding companies, in the process of genetic improvement.		x	X	x	x
R 3.2. Sustainable Best practice natural resource management (NRM) developed and adopted	**R 3.2. Sustainable Best practice natural resource management (NRM) developed and adopted**				
Activity 3.2.1 Undertake scoping assessments and studies to identify promising interventions needed to improve NRM, including climate-smart ones					
Sub-Activity 3.2.1.1.: Stock take studies, on regional level, to identify potential opportunities for interventions introduction and adoption, and/or upscaling for improving NRM.		x			
Sub-Activity 3.2.1.2.: Support regional participatory (stakeholder) assessment of NRM on RECs level.			X	x	x
Activity 3.2.2: Facilitate the development and adoption of best practices for NRM including climate smart practices					
Sub-Activity 3.2.2.1: Promote best practice/intervention of NRM including climate-smart livestock practices in MS and RECs, for both adaptation and mitigation approaches.		x	X	x	x
Activity 3.2.3. Support ecosystem management approaches on utilization of shared ecosystems					
Sub-Activity 3.2.3.1: Promoting knowledge and capacity building of ecosystem management approach and utilization of shared ecosystem.		x	X	x	x
R 3.3. Access to quality feed and water enhanced	**R 3.3. Access to quality feed and water enhanced**				
Activity 3.3.1 Facilitate the development of best practices for improved and sustainable utilization of water and feed resources in livestock production systems					
Sub-Activity 3.3.1.1 Stock take to identify areas of intervention and best practice in feed and water resources management, under different production system in MS/RECs		x			
Sub-Activity 3.3.1.2: Capacity building for water and feed production and conservation technologies in MS and RECs for enhancing productivity and resilience				x	x
Activity 3.3.2 Support the production and utilization of quality-feed and water					
Sub-Activity 3.3.2.1.: Analyze issues of water and feed quality (e.g. feed adulteration, contamination with aflatoxins, water salinity treatment/control, etc.) in different MS and RECs, and draw the road map for improving quality and control adverse practices		x	X	x	x
Sub-Activity 3.3.2.2.: Promote the establishment of continental "African Feed Quality Standards Association, AFQSA" to handle the issue of feed quality and standards control.				x	x
Output 4.1: Livestock Early Warning Systems [LEWS] strengthened	**Output 4.1: Livestock Early Warning Systems [LEWS] strengthened**				

Activity 4.1.1: Strengthen the capacity of LEWS in MS and RECs to effectively collect, manage and deploy early warning information					
Sub-activity 4.1.1.1: Stock take of current LEWS in selected MS, for different types of potential disasters (diseases, draught, sever weather events, conflicts, etc.)		x			
Sub-Activity 4.1.1.2: Disseminate information and capacity building for stakeholders on the road map for improving LEWS.(development of continental LEWs)		x	X	x	x
Activity 4.1.2 Strengthen the LEWS planning and response capacity of Member States					
Sub-Activity 4.1.2.1: Develop regional strategies on planning the response, of different stakeholders, to potential disasters.				x	x
Activity 4.1.3. Identify smart partnership mechanisms to support timely disaster responses					
Sub-Activity 4.1.3.1: stock take for identifying potential partnership and stakeholders in MS		x			
Sub-Activity 4.1.3.2: Develop regional strategies on smart partnership and timely disaster response, including resource mobilization		x	X	x	x
Output 4.2: Disaster Risk Management (DRM) enhanced	**Output 4.2: Disaster Risk Management (DRM) enhanced**				
Activity 4.2.1. Promote the utilization of indigenous adaptive characteristics of AnGR for improved resilience, sustainability and Disaster-risk-management of the livestock production system					
Sub-Activity 4.2.1.1: Stock take on the current status and gaps/ needs and potential development of DRM		x			
Sub-Activity 4.2.1.2: Perform a desk study and undertaking a consultative workshop on available local knowledge and adaptive characteristics of indigenous AnGR (AnGR project) and identification of Disaster Risk Reduction Tools and technologies				x	x
Sub-Activity 4.2.1.3: Cost-benefit analysis of DRM, and development of a strategy on best utilization of local knowledge and adaptive characteristics of indigenous AnGR for improving production system resilience and Disaster risk management				x	x
Activity 4.2.2. Document, disseminate and promote the adoption of best practices on DRM, system resilience and sustainability.					
Sub-Activity 4.2.2.1: Document and disseminate information and promote stakeholders adoption of risk management tools and strategies, for improving the system resilience and sustainability.		x	X	x	x
Result 5 Technology adoption in the LVCs increased					
R5.1 Adoption of modern technology to enhance production, productivity, value addition and competitiveness publicized	**Output 5.1: Adoption of modern technology to enhance production, productivity, value addition and competitiveness publicised;**				

Activity 5.1.1: *Inventorize the existing technologies across the value chains that enhance production, productivity, sustainability, climate resilience and value addition*					
Sub-activity 5.1.1.1: Carry out a desk and field study of existing appropriate technologies and identify their applicability in enhancing production, productivity and profitability of priority value chains					
Sub-activity 5.1.1.2: Draft and publish value chain booklets documenting priority environmentally friendly and climate-friendly technologies for Africa					
Activity 5.1.2*: Establish regional platforms to promote technology development and transfer across the priority value chains*					
Sub activity 5.1.2.1 Establish and operationalize regional technology and innovation incubation centers (TiCHUB) in collaboration with Universities, research centers and other strategic partners					
Sub activity 5.1.2.2 Establish Continental innovation platform					
Sub activity 5.1.2.3 Identify areas of appropriate interventions and develop technology action plans (TAPs) for prioritized technologies					
Activity 5.1.3 *Support the adoption of appropriate technologies and strategies across the value chain including reproductive technologies, water and feed production and conservation technologies, value addition and post-harvest losses reduction*					
Sub-activity 5.1.3.1 Establish regional Pastrolist Field Schools (PFS) and Farmer Field schools (FFS) on knowledge transfer for relevant technologies for production, reproduction, water and feed production, value addition and post-harvest losses reduction					
Sub-activity 5.1.3.2 Scale up viable technologies in production, reproduction, water and feed production, value addition and post-harvest losses reduction (through AWARFA-N,AYL-FAIN,)					
Sub-activity 5.1.3.3 Organize a technology and innovations exhibition/fair					
Activity 5.1.5 *Identify and negotiate smart partnership mechanisms to support technology development and transfer*					
Sub Activity 5.1.5.1 Develop and operationalize platforms/apps to aid eased access to micro financing support systems , research organizations, private sector partners focused on technology uptake specific to small holder farmers					
Activity 5.1.6 *Support documentation and dissemination of best practices on technology transfer and adoption*					
Sub-Activity 5.1.6.1 Develop and operationalize a continental technology and innovations information hub/ database					
Sub-activity 5.1.6.3 Publish bi-annual newsletter on modern technologies and innovations including success stories in Africa					

R5.2 Animal resources knowledge enhanced;	Output 5.2: Animal resources knowledge enhanced;				
Activity 5.2.1 *Develop and operationalize 3 ARIS modules (trade & marketing; animal production and animal health)*					
Sub-activity 5.2.1.1 Develop functional data collection templates, identify data sources and establish verification procedures for 3 ARIS modules (trade & marketing; animal production and animal health)					
Sub-activity 5.2.1.2 Identify existing livestock market information systems and develop a LMIS model					
Sub-activity 5.2.1.3 Develop and operationalize harmonized data visualization system					
Activity 5.2.2 *Promote utilization of mobile technology and Information and Communication Technology across the priority value chains*					
Sub-activity 5.2.2.1 Identify and inventorize relevant Animal Resources management software and application across the value chains					
Sub-activity 5.2.2.2 Support training of stakeholders in member states on existing mobile and ICT applications and their domestication					

African Union – Interafrican Bureau for Animal Resources
(AU-IBAR)
Kenindia Business Park
Museum Hill, Westlands Road
PO Box 30786
00100 Nairobi
Kenya
Tel: +254 (20) 3674 000
Fax: +254 (20) 3674 341 / 3674 342
Email: ibar.office@au-ibar.org
Website: www.au-ibar.org