EAC REGIONAL STRATEGY ON PREVENTION AND CONTROL OF TRANSBORDERARY ANIMAL AND ZOONOTIC DISEASES

(2012 – 2017)

With Emphasis On “One Health” Approach
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ABBREVIATIONS AND ACRONYMS

AI  Avian Influenza
ARDP  Agriculture and Rural Development Policy
ARDS  Agriculture and Rural Development Strategy
ASF  African Swine Fever
AU-IBAR  Africa Union Inter-Africa Bureau for Animal Resources
BSE  Bovine Spongiform Encephalopathy (Mad Cow Disease)
CBBO  Community Based Organisation
CBPP  Contagious Bovine Pleuropneumonia
CCPP  Contagious Caprine Pleuropneumonia
COMESA  Common Market for Eastern and Southern Africa
CSF  Classical Swine Fever
CVO  Chief Veterinary Officer
EAC  East African Community; comprising the Republics of Burundi, Kenya, Rwanda, Uganda and United Republic of Tanzania
EC  European Commission
ECF  East Coast Fever
EU  European Union
FAO  The United Nation Food and Agriculture Organisation
FAOSTAT  Food and Agriculture Organisation Statistics
FBO  Faith Based Organization
FMD  Foot and Mouth Disease
FMDV  Foot Mouth Disease Virus
GDP  Gross Domestic Product
GF-TADs  Global Framework for Transboundary Animal Diseases
GLEWS  Global Early Warning System for Major Animal Diseases
HIV  Human Immuno-deficiency Virus
HMPV  Human Metapneumovirus
HPAI  Highly Pathogenic Avian Influenza
HRSV  Human Respiratory Syncytial Virus
IGAD  Inter Governmental Authority for Development
INAP  Integrated National Action Plans
IPC  Infection Prevention and Control
LLPs  Livestock and Livestock Products
LSD  Lumpy Skin Disease
MT  Metric Tonnes
ND  Newcastle Disease
NGO  None Governmental Organization
OIE  World Organization for Animal Health
PPE  Personal Protective Equipment
PFR  Peste des Petits Ruminants
PS  Partner State
PVOS  Performance of Veterinary Service
RB  Rabies Disease
REC  Regional Economic Community
RVF  Rift Valley Fever Disease
SADC  South African Development Community
SAT  South African Type

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SOP | Standard Operating Procedures
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SIPS | Sanitary and Phytosanitary
TADs | Transboundary Animal Diseases
UNDP | United Nation Development Program
UNICEF | United Nation International Children Emergency Fund
USD | United State Dollar
WFS | World Food Summit
WHO | World Health Organisation
WTO | World Trade Organisation
WWF | World Wildlife Fund

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The East African Community wishes to acknowledge with gratitude the contributions and support of institutions and individuals that contributed to the process which led to the publication of this document ‘The EAC Strategy on Prevention and Control of Transboundary Animal and Zoonotic Diseases’.

The preparation of this Strategy was made possible by the excellent support and guidance of the Amb. Dr. Richard Sezibera, EAC Secretary General, Mr. Jean Claude Nsengiyumva, Deputy Secretary General—Productive and Social Sectors and Dr. Nyamageje C. Weggroo, Director of Productive Sectors.

The document was prepared by EAC Secretariat, Livestock section in collaboration with the EAC Partner States technical experts in the animal health, animal production and human health sectors. In particular, we acknowledge Mr. Timothy Wesonga, EAC Senior Livestock officer and Dr. Mmeta Yongolo the Animal Health Expert and the EAC Steering and Technical Experts Committees on Transboundary Animal Diseases for their contribution in the development of this strategy. The document will facilitate in management of transboundary animal and zoonotic diseases in the EAC region.

Lastly, the EAC Secretariat would like to extend its gratitude and appreciation to the EAC Agriculture and Food Security Sectoral Council of Ministers and the EAC Council of Ministers for approving the documents and to all Partner States technical experts, stakeholders and EAC Secretariat staff who in one way or another contributed to the success of this work.

Finally, the EAC would like to sincerely thank the EU for funding the process for developing and publishing this regional strategy.
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The regional strategy on prevention and control of transboundary animal and zoonotic diseases aims at providing the region with a framework for effective management and prevention of disease outbreaks in the EAC region. The regional strategy articulates the regional mandate, vision and mission of the EAC in prevention and control of these diseases and outlines related strategic interventions, approaches and activities that should be carried out in order to achieve the objectives within the Medium Term Framework of 2011 to 2016.

The strategy provides a logical sequence for systematically implementing the EAC regional mandates in controlling and preventing transboundary animal diseases as stipulated in article 108 of the Treaty establishing the EAC. The Strategy is the first in EAC following the establishing of the livestock section under the department of the Agriculture and Food Security in March, 2007. The Strategy aims at supporting livestock production at the regional level through improvement of animal production and productivity to meet regional demand and surplus for export. The continued occurrence of Transboundary Animal Diseases (TADs), emerging and re-emerging infectious disease in the region like; Foot and Mouth Disease, Contagious Bovine Pleuropneumonia, Rabies, Rift Valley Fever (RVF), Marburg, Ebola, African Swine Fever amongst others in the EAC region create a major obstacle to animal production and they are of public concern. These diseases interfere with trade of livestock and livestock products.

This strategy aims at increasing the contribution of the livestock sector to socio-economic development and minimizing public health hazards in the EAC. That will be achieved through safeguarding human and animal health, livelihoods of the farming communities, from outbreaks of TADs through building capacities in the Partner States to be able to establish effective rapid detection and response capacity. To this end, the regional strategy specifically calls for strengthening surveillance capacity; strengthening diagnosis and laboratory capacity; enhancing research and development; improving information, education and communication; enhancing prevention and control of transboundary diseases including zoonoses; strengthening capacity for containment and case management; improving coordination, management and resource mobilization; strengthening monitoring and evaluation capacity of EAC; and harmonization of policy, rules and regulations in the EAC.

The strategy embraces the ‘one health’ approach with emphasis on close collaboration of animal, human and environmental health experts in controlling these diseases. The strategic approaches in this strategy will be based on: early warning systems; rapid recognition of diseases outbreaks with reliable diagnostic facilities; biosecurity/movement management; stamping out and compensation; total population or strategic ring vaccination; compartmentalization and zoning; public awareness and communication; community awareness and cooperation; socio-economic impact analysis and Animal identification and traceability. In order to enhance coordination in control of diseases and enhance one health approach, a multi-disciplinary Steering Committee is envisaged to guide the process.

This strategy is in tandem with EAC Agriculture and Rural Development Policy and Strategy. It is in line with the current EAC Development Strategy and its compliant with Comprehensive African Agriculture Development Program (CAADP) more so its companion documents on livestock development. This EAC initiative is therefore within the continental Agriculture Sector Agenda as stipulated by CAADP. Further, this regional strategy on disease control will contribute to the achievement of the Millennium Development Goals (MDGs) of the United Nations especially MDG number one on elimination extreme hunger and poverty.

To ensure focus on the achievement of planned objectives an implementation matrix has been prepared. The implementation process will constitute cascading operations to the EAC Partner States and subsequently to individual work plans within the relevant ministries and departments whereby all
identified activities will be translated into day-to-day tasks with sharp focus on targets to be achieved.

The EAC would like to wish all involved in the implementation of this regional strategy success. The implementation of this strategy will be more successfully if every stakeholder effectively plays his/her role in preventing and controlling of diseases.

Dr. Richard Sezibera
Ambassador
SECRETARY GENERAL
EAST AFRICAN COMMUNITY

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EXECUTIVE SUMMARY

This is the first East African Community (EAC) Strategy on Prevention and Control of Animal Diseases, specifically Transboundary Animal Diseases (TADs) and Zoonotic Diseases. These diseases can easily and quickly spread across areas and countries and some are of public health (Zoonotic diseases) importance.

This strategy is prepared as a tool for implementing regional mandates emanating from the provisions of the Treaty for the Establishment of the EAC Partner States comprising the Republics of Burundi, Kenya, Rwanda, Uganda and Tanzania. Article 5 which sets out the objectives of the Community stipulates that: “The Community shall ensure the strengthening and consolidation of co-operation in agreed fields that would lead to equitable economic development within Partner States and which would in turn, raise the standards of living and improve the quality of life of their populations.” Chapter 18 of the said Treaty specifically provides for cooperation in addressing economic and development issues including Agriculture, Food Security, Livestock multiplication and distribution, and trade among others and specifically outlines measures for the prevention and control of Plant and Animal diseases in Article 108.

These diseases originate from different domestic animals as well as wildlife species. As far as TADs and Zoonotic diseases are concerned wildlife have major role in either maintenance or amplification of infections that can spill over to livestock and humans. They are therefore not only of public health importance but also of trade and tourism importance. This strategy is for the regional livestock and wildlife sectors of the EAC. Addressing activities stipulated in this strategy will enable the operationalisation of the relevant Articles of the Treaty establishing the EAC and which provide for cooperation in activities that would ensure sustainable economic development using available resources. Livestock and wildlife are among the abundant available resources in the region.

The vision of regional TADs and Zoonotic diseases strategy is to create wealth through a harmonised, improved competitive and safe integrated market-driven sustainable livestock productivity and tourism. The strategy aims at safeguarding human and animal health, livelihoods of the farming communities, from outbreaks of TADs through building capacities in the Partner States to be able to establish effective rapid detection and response capacity.

The harmonised strategy guarantees effective sustainable production and trade environment supported by capable credible regional and Partner States institutional and human capacity. In addition to safeguarding human health, this capacity would enable and guarantee the region to meet sanitary and requirements of the World Animal Health Organisation (OIE) and the World Trade Organisation (WTO).

This can only be achieved by a strategy focused on improving and supporting investments in livestock production, disease prevention and control in the whole production and value chain.

In the EAC Partner States animal resources include livestock and fisheries, which closely interact/interact with wildlife, specifically on the use of natural resources that often lead to the associated domestic animal, human and wildlife interface diseases. Currently, 60 to 70% of newly emerging and re-emerging diseases are of animal origin affecting domestic animal and humans. Of these diseases, those which originate from domesticated and or wildlife animals are termed as zoonotic diseases. Prevention and Control of these diseases, which cause severe and high rates of deaths in humans, requires a strategy that results in prevention of spread of these diseases at source. The lists for zoonotic diseases of importance and of high risk in EAC mainly include Rift Valley Fever (RVF), Rabies (RB), Highly Pathogenic Avian Influenza (HPAI H5N1), Pandemic Swine Influenza (pH1N1-2009), Anthrax, Ebola and Hepatitis E among others.

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Lessons learnt from OIE, FAO, WHO, AU-IBAR Member States agreements on animal and public health regulations, standards, Codex Alimentarius Commission (Codex) as well as Sanitary and Phytosanitary (SPS) procedures require inter-country and intra-regional coordination and agreements that obligate Members to comply. In addition, outbreaks of Highly Pathogenic Avian Influenza and its consequences show that combined, coordinated and harmonised efforts involving Partner States, regional and global organisations resulted in efficient prevention and control of outbreaks that consequently lead to improved trade and economies of respective regional blocks. Experiences on Foot and Mouth Disease (FMD) in Europe, show success was attained to prevent and control after formation of a functional European Commission for FMD (EC FMD) within the European Union (EU) region. This commission is the oldest EU commission established in 1954. Based on these successful experiences and due to the nature of the diseases, global organisations decided that for progressive control of Transboundary Animal Diseases (TADs) the framework requires facilitation mechanisms that endeavour to empower regional alliances in the fight against TADs and zoonotic diseases. In this strategy, a facilitation mechanism through a Livestock and animal health commission is envisaged.

Within the EAC framework, trade is currently being emphasised and promoted through an understanding of an East African Community Partner States committed to the goals of a common market, taking on national, regional and international markets. Within the EAC Secretariat, under the Productive Sectors directorate there is a department responsible for animal and crop agriculture that oversees the development of a sustainable food secure economy. The Livestock section in the department of Agriculture and Food Security is responsible for promotion of trade in Livestock and Livestock Products (LIPs) in the region. To guarantee trade in safe livestock products, it gives priority on building capacity on sanitary and phytosanitary (SPS) measures within Partner States, regional and international trading systems.

Devastating economic losses of livestock, the world over, from major outbreaks of TADs such as foot-and-mouth disease (FMD; 1997-2005), classical swine fever in the Caribbean and Europe (1996-2002), Rinderpest in the Somali ecosystem (2001), Peste des petits ruminants in East Africa (Uganda, Tanzania and Kenya 2008-2011; India and Bangladesh 2000 - 2003, Contagious bovine pleuropneumonia in Kenya Uganda and Tanzania 1998 - 2005; Zambia, Angola, Namibia and Eritrea in 2000-2003), as well as Rift Valley fever in the Arabian Peninsula (2000) and in Kenya and Tanzania 2006 to 2007; were the main stimuli for the initiative to create a Global Framework for Progressive Control of TADs. In 1996 to 2004, Highly Pathogenic Avian Influenza (HPAI) virus was first reported and spread to 10 Asian countries. It subsequently spread to Europe. From 2003 to 2006, experience of this outbreak spread and success in its control underlines the pressing need for improvement of disease management at source before spread to devastating proportions. It also emphasizes the need for early detection, reporting and response.

There is ample evidence from various studies that the spread of TADs will increase unless concerted international actions are put into place for effective prevention and progressive control. The success on concerted actions on control of the HPAI outbreak was attained through concerted efforts of FAO, OIE, and the WHO. HPAI outbreak was contained using the available resources. It's against this background that the Global Strategy and the GF- TADs initiative on effective prevention and progressive control of major TADs are an effective contribution to the achievement of the Millennium Development Goals.

It is therefore the focus of this Strategy to control TADs and zoonoses at source of infection prior to the spread of the disease. The strategy propounds the 'One Health' approach. Thus EAC TADs programme will be developed along the following thrusts:

An Operational regionally led mechanism for control of priority diseases as agreed by Partner States and relevant stakeholders and coordinated by an established and funded Livestock and animal health department or commission at the EAC;

National, regional and global early warning and reporting systems for animal diseases;

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Regional policies, strategies, and regulations based on scientifically generated information developed out of joint research and training on TADs causing agents at the molecular and ecological levels for more effective strategic disease management.

A regional capacity development program to eradicate TADs and emerging infections in the region.

Twinned Partner States national referral diagnostic laboratories with OIE-FAO Reference Laboratories and Centres of excellence.

Networks of national diagnostic and livestock research institutions and mandated National and Regional animal health laboratories and research institutions;

EAC region TAD research and control programmes in collaboration with continental, global technical organisation such as AU-IBAR, FAO and OIE and other relevant regional livestock collaborating Centres, research institutes and reference laboratories.

A regional Fund to support EAC joint animal disease research and control activities.

The Outputs and Outcomes for EAC TADs programme shall be:

Country-based surveillance and disease reporting enhanced through capacity building of epidemiology units and laboratory diagnostic capacity and personnel.

Concerted animal disease control programmes developed through the establishment of regional support units.

Regional and Global Early Warning Systems for TADs established with the collaboration of FAO, OIE and WHO, connected to regional epidemiological systems.

Planned, coordinated and monitored verified regional freedom from BSE, CSF, HPAI and any other specific TADs requiring freedom by EAC Partner States.

Coordinated identification, characterization and mapping of Animal populations and primary endemic circulation of FMD and other TADs in all EAC Partner States.

Linked national, regional and international early warning detection/diagnosis disease confirmation and response capacities for prompt and authoritative disease control of strategic and targeted diseases.

Collaboration between animal, human and Environmental health experts in the spirit of one health approach.

Continuous professional development

In implementing this Strategy, the EAC envisages the following major challenges; Lack of funding, Understaffing and Management of animal movements. The EAC plans to develop programmes and projects to address this situation.

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1.0 BACKGROUND AND RATIONALE

1.1 Regional Approach and Environment Set by the EAC Establishment.

This is the first East African Community (EAC) strategy on Prevention and Control of animal diseases specifically, Transboundary Animal Diseases (TADs) and Zoonotic Diseases. This strategy is prepared as a guiding tool for implementation of regional mandates emanating from the provisions of the Treaty for establishment of the EAC Partner States (PS), comprising of the Republics of Burundi, Kenya, Rwanda, Uganda and Tanzania. Article 5 of the EAC sets out the objectives of the Community stipulates that: "The community shall ensure the strengthening and consolidation of co-operation in agreed fields that would lead to equitable economic development within Partner States and which would in turn, raise the standards of living and improve the quality of life of their populations". Chapter 18 of the Treaty specifically provides for cooperation in addressing economic and development issues including Agriculture, Food Security, Livestock multiplication and distribution and trade. It specifically outlines measures for the prevention and control of plant and animal diseases in Article 108. To achieve this, the EAC Partner States should cooperatively use the existing resources. Livestock and other animals are important resources in the EAC region. Over 80% of the 130 million EAC human populations are involved in livestock production alone, whose food security, livelihood and economy depend on livestock, especially for pastoralist communities. In addition to partly utilising the 124,718 thousands hectares of the total EAC agricultural land, livestock production engages rangeland that is not suitable for crop production to produce the most needed valuable marketable livestock products. Consequently, supporting and enhancing livestock productivity which is already employing over 80% of the EAC population could foster development that is people-centered and market driven which is inline with the EAC operational principles.

Effective realisation of the commitments to successfully use livestock for improving economies and livelihood of their respective populations can only be achieved by a strategy focused on improving and supporting investments in livestock production, disease prevention and control in the whole livestock production and value adding chain. This could ultimately promote trade in livestock and livestock products. Income generated from this trade would contribute to supporting and spurring economic growth in the EAC. In this regard the livestock sector in Partner States must be capacitated to exploit the available animal resources, and EAC Partner State economic infrastructure to take advantage of the opportunities offered by the established regional common and international markets.

EAC has a development strategy that incorporates the Millennium Development Goals. In order for Partner States in the region to achieve their goals the EAC development policy emphasizes on establishing an enabling environment for trade facilitated through the common markets, one tariff systems systems and political stability. This environment can provide a catalyst for supporting increased production of livestock, livestock products and incomes. The EAC Regional Rural and Agricultural Development Policy (EAC-ARDP) and the Agriculture and Rural Development Strategy (EAC ARDS) give directions for sustainable agriculture that includes livestock. The overall objective as set out in the EAC Treaty, the EAC-ARDP through the EAC-ARDS is to implement the achievement of food security and national agriculture crop production. The EAC – ARDS guides and provides pillars for the agriculture and livestock development strategies. The overall objective of the livestock component of the EAC ARD and ARDS is to produce enough safe quality animals and animal products, to match both the requirements of the rapidly growing human populations in the region and for the export markets. In this context, the livestock component within the EAC ARD and ARDS is much about increased production and therefore inadequately caters for concerted and intent of complex animal diseases, prevention and control mandates as envisioned in Article 108 of the EAC Treaty. This strategy however, emphasizes and expands on the following: capacity building to manage diseases, research, technical and financial resource support, regulations, policies and harmonized regional activities.

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2.0 SITUATION ANALYSIS

2.1 Review of EAC Regional Livestock and Diseases Situation

Livestock population and its economic value demonstrate that livestock have a strong potential to effectively participate in the world economy and thereby enhance development of the EAC people through fostering well coordinated trade and related policies and strategies. This regional strength is therefore the basis and the reason for addressing trade limiting factors of livestock and livestock products (L1Ps). Transboundary animal diseases are the main limiting factor for L1Ps trade and income from animal resource production. In addition, prevention and control of the Transboundary Animal and Zoonotic diseases, which are addressed in this strategy, require strategic intervention and a regional progressive approach for efficient and effective prevention and control.

In all Partner States the 2010 EAC Agriculture and Livestock Production Statistics indicate that in EAC there was a total of 50.2m cattle, 59.7m goats, 25.3m sheep, 6.3m pigs 109.8m poultry and other livestock species including ducks, camels, and rabbits (Annex 1, Table 1). These figures could be higher if countries undertook livestock census. Uganda and Kenya carried out their livestock census in 2008 and 2009 respectively. Results from this census recorded a significant jump in the livestock population. This clearly showed that the livestock populations determined through estimates have always not reflected the actual populations. This could have a huge impact on calculations of the contribution of livestock to national GDPs. The presence of accounted animals is a prerequisite for efficiency of livestock planning and a disease control requirement. The need for animal identification and traceability as a tool for animal movement and disease control is therefore required.

Information on livestock products in the EAC Partner States is only available for meat, eggs and milk. Other products like hides and skin, animal traction power, manure, geese and duck meat are not included in determination of the livestock GDPs. These values are important in calculation of the impact of diseases and national GDPs. Knowledge of the actual impact of diseases is important for planning and political decisions making on budget allocations and support prioritization. Lack of impact assessment of diseases in the livestock sector could have contributed to the low government and private sector investment on livestock and disease control.

In EAC Partner States the following disease are observed and reported:

Group of commonly circulating TADs in the region include; Rift Valley Fever, Foot and Mouth Disease, Newcastle Disease, Contagious Bovine Pleuropneumonia (CBPP), Contagious Caprine Pleuropneumonia (CCPP), Trypanosomiasis, Peste des petits Ruminants (PPR), Lumpy Skin Disease (LSD), Rabies, and African Swine Fever.

Group of diseases, which although are not reported in EAC Partner States, for trade purposes of L1Ps trading partners usually request for information on the countries being free from disease or infection on traded products or animals. This means despite their possible absence but the capacity to monitor and scientifically prove there absence is imperative. These diseases are; Highly Pathogenic Avian Influenza, Classical Swine Fever and Mad Cow Disease (Bovine Spongiform Encephalopathy), blue tongue and Nairobi Sheep Disease.

An additional list of EAC diseases, which the EAC Directors of Veterinary Services meeting agreed to be also considered as priority diseases include, Tick Tse and Tick borne diseases should also be included in the regional data base. These diseases in strict sense are not international TADs but as a region they are the most common and widely spread in the region and therefore a burden to veterinary services.

Devastating economic losses to the livestock industry the world over were experienced and registered from major outbreaks of TADs such as;

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The losses were very high and therefore these outbreaks were the main stimulus for the initiative to create a Global Framework for Progressive Control of OADs.

Zoonotic Highly Pathogenic Avian Influenza (HPAI) caused by the virus H5N1 was first reported in 1996 and by 2004 the diseases had spread to 10 Asian countries. Subsequently it spread to Europe, Middle East and 11 countries of Africa. In African outbreak mortalities were recorded in exposed humans in Djibouti and Egypt from 2003 to 2006. Nearest to East Africa Community, the disease was reported in Northern and Southern Sudan, which borders with Uganda and Kenya. In Egypt, HPAI is still being reported and therefore is endemic. Experience from this outbreak, in terms of its spread and subsequent success in its control underlines the pressing need for improvement of disease management at its source before it spreads to devastating proportions, and also the need for early detection, reporting and response.

2.2 Review of Wildlife Animal Health Issues

EAC is endowed with a large population of wildlife, which is a source of income through the tourism industry, which contributes significantly to EAC Partner States GDP's and realisation of MDGs. However, tourism and other human development activities have increased human, domestic animals and wildlife interface and interaction. This scenario sets a condition for increased risks and threats for new disease causing agents between different species of animals (Zoonoses). It can also result in both maintenance and amplification of disease agents in an ecosystem.

To combat such diseases, it requires a regional approach so that timely detection, prevention and control can be instituted. This therefore calls for wildlife sector preparedness at regional and national levels. Development and maintenance of such a capacity is expensive and therefore calls for regional cooperation on logistical, technical and financial support. In addition, newly emerging zoonotic diseases usually originate from wildlife in which very few technologies are available for serological and molecular detection, monitoring and confirmation of disease, vaccine and treatment. Consequently, effectiveness of existing technologies developed for humans and domestic animals is not reliable in wildlife. Thus, it's important that this strategy not only focuses on livestock, but also aims at the development of protocols for production of biological for disease detection and confirmation, treatment and vaccination in wildlife and domestic animals. Biological development should also involve effective vaccines for different species of wildlife. Emerging infections occur, when there is no host immunity, thus they spread fast and the mortality and case fatality rates are high. HPAI, Pandemic Influenza and Viral Haemorrhagic Fever diseases are examples of this fact, for whenever they occur they easily become a disaster. Given their disaster potential, its imperative that the EAC as a region should have a strategy that can predict emerging and re-emerging diseases. This needs a high technical capacity on early warning and prediction of candidate pathogens, building archive facilities and monitor circulating infection in wildlife and livestock populations.

Animal resources in EAC PS are closely associated with wildlife, specifically on the use of natural resources heightening the domestic animal and wildlife interface and diseases. Currently, 60 to 70 % of newly emerging and re-emerging diseases are of animal origin, affecting domestic animal and humans.

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Given that newly emerging and re-emerging diseases usually occur when new and old hosts' defensive mechanisms (immunity) are not in place, the spread of the diseases and their impact is high. Prevention and Control of these diseases, which cause severe and high rates of deaths in human, entail a strategy that results in detection, prevention and control of spread at source.

Recent scientific data indicate that 60 to 75% of new diseases emerging in human are of animal origin, with 70% being reflected in most of the publications. The reason for this alarming increase in infections to humans and domesticated animals is the expansion of human and wildlife interactions due to human development activities including; opening new lands for transport, water, mining, new habitats, tourism/leisure, keeping animals as pets, eating bush/game meat and research. All these are of economic importance and social welfare. However, there is a negative side of it, which is exposure and adoption of new infections that can cause severe and or deaths diseases. Usually, in such cases the new disease takes time to be diagnosed and it might also spread to more areas and populations without any technology or techniques to diagnose, prevent, control or treat, because it will be spreading as an unknown disease. This might similarly be the same situation incases of diseases spreading from humans to domestic and wild animals.

Human interaction and expansion of activities in new areas is represented by the introduction of FMD and Smallpox in East Africa in the 1920s. FMD was introduced and spread in wildlife, buffalos and wildebeests, causing 95% of mortalities in Wildebeests. At the same time Smallpox was introduced in humans and many people died of Smallpox. This particular outbreak covered the whole Serengeti ecosystem and spread south to Lake Rukwa, in southern Tanzania. The two diseases were spread by colonial caravans to immunologically susceptible animals and humans. Recently, the Lujo disease and Hepatitis E virus outbreaks in the SADC and EAC region which originate from animals (possibly from rodents or pigs and many other animals), were timely detected and controlled before they could cause wide spread effects because of the existing SADC regional technologies for the two diseases.

The extended list of zoonotic diseases of importance and of risk in EAC mainly include Rift Valley Fever (RVF), Rabies (RD), Highly Pathogenic Avian Influenza (HPAI H5N1) Pandemic Swine Swine Influenza (p H1N1-2009), Yellow Fever, Anthrax, Ebola, Hepatitis E, Campylobacter, Bovine Spongiform Encephalopathy (BSE) and recently pathogenic E Coli. Effective and efficient detection, prevention and control of such diseases call for a one health approach.

The threat is not only one directional, that is from wild animals to human and domestic animals but also from humans and livestock to wildlife animals. Control of rabies in domesticated dogs around Serengeti ecosystem which resulted in reduced cases of rabies in wildlife shows that wildlife acquired rabies from domesticated dogs. Tourism and specifically ecotourism has lead to outbreaks of respiratory diseases among African chimps. The human respiratory syncytial virus (HRSV) and human metapneumovirus (HMPV) is a case of recent experience putting wildlife chimps at risk. These respiratory infections usually kill infant humans in developing countries. Nearly all humans have had contact in their life time with these viruses, so humans with time have developed defence mechanisms against them. This is not the case in new hosts. The current confirmed infection from humans to wild great apes in Rwanda and other parts of Africa has resulted in severe disease in chimps. Entire populations of chimps in West Africa between 1999 and 2006 died due to these infections. Other examples are diseases and deaths in Zebra and Hippopotamus in EAC Partner States, which can threaten the entire population of susceptible species.

These recent wildlife disease outbreaks associated with severe and substantially high death rates has raised attention in roles of wildlife veterinary circles. The need for some intervention has been suggested wherever necessary. However, the current diseases interventions are mainly based and validated in livestock and few for wildlife. In some incidences some wildlife have been vaccinated to avoid massive deaths, but with variable results. This also applies to diagnostic techniques, specifically on antibodies. To be sure of the outcomes of vaccination, treatment and diagnosis, validation of tests using wildlife

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specific models in development of biologicals tested in wildlife is recommended.

The need for situational interventions in the wildlife health sector, when there is a risk of massive deaths and extinction is a policy and strategic issue in wildlife management. Basically there are two opinions; the first being not to intervene and leave nature to prevail and the second is to intervene to save life when there are massive livestock population of animals to safeguard tourism. These are controversial issues as far as wildlife is concerned. Currently there is a very high interaction between wildlife, livestock and humans, even in areas that are specifically dedicated to animals. This has resulted in human activities from all over the world in the form of tourism and economic development activities. Human activities which adversely affect wildlife natural habitats include fencing, redirection or change in land use specifically areas which are sources of water. These have negative impact for survival of wildlife or can support introduction of new pathogens into new hosts that were previously not exposed to them. Introduction of exotic infections can be by natural introduction through contact with new animal species from distant places. This could be accidental through vehicles, human debris and also bionomics. In view of the above, human beings should be responsible for the health and welfare of wildlife. Therefore, the need for situational intervention of some sort is necessary. Before any intervention is carried out an assessment of the situation is a prerequisite. Given that wildlife are in most cases shared among neighboring countries and specifically wild birds the regional approach to wildlife diseases and planning is mandatory.

2.3 Potential Internal and Export Markets and Problems Facing the Livestock Industry

East African Community Common Market is backed by a population of 130 million people and a Gross Domestic Product (GDP) of 75,047 billion USD. In addition EAC Partners States are also members to other regional communities; the SADC, IGAD and COMESA which potentially open up EAC to bigger markets. To maximize and optimize this, the EAC has taken initiatives to explore cross cutting issues in EAC and other RECs, which can support livestock development. These include infrastructure, energy and trade cooperation through the tripartite and other arrangements between EAC and other regional communities. The livestock industry will take advantage of these regional arrangements and development. National livestock development policies and strategies of Partner States indicate that internal markets are growing fast and efforts to produce livestock products aiming at internal markets should have the same quality as those destined for export in the region or international markets. Therefore, the EAC strategy should internalize SPS in all steps of livestock production chain from farm to market of livestock and livestock products (LFPs). Sanitary standards, legislation and regulation to support are necessary for internal and to what is required by an export oriented production system.

The possibility of developing an export-oriented industry in EAC is high. History of the livestock industry in this region show that all Partner States before and immediately after independent were exporting LFPs to Europe, Middle East and Asia. This strategy needs to address the mistakes that lead to the loss of export markets. The European Union (EU), with a population of about 500 million citizens, is one of the major global meat consumers (it imported over 570,000 metric tonnes of beef from third world countries in 2006). Up to 2007 Kenya was the only country in EAC that was exporting 400 metric tonnes of beef to EU countries, but in 2008 it lost its quarter to Botswana due to outbreaks of RVF, PPR and failure to timely detect, prevent and control these diseases. Ban on Kenya beef shows the strict need for abiding disease reporting and prevention, which makes EU a very complicated market to penetrate and sustain. The EU meat standards are very stringent.

The EAC with the common market is empowered to negotiate for access to the EU markets that should ideally present enormous potential for EAC trade. In the UK, a higher portion of beef imports comes from non-EU countries particularly, South America, African states and Australia, compared to the rest of the EU. There are various import schemes, quotas and agreements covering the import of fresh and frozen beef into EU, whereby customs and other duties are significantly reduced for specified quantities

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of meat from specific countries, EAC livestock are generally raised under conditions that meet those for organic products and since the European market for organic meat is growing, there is therefore an opportunity for trade of LLPS from the EAC.

The increase in demand for protein of animal origin and the emerging and re-emerging diseases is a reality. This conclusion is predominantly based on predictions of an unprecedented growth of the livestock sector and of the consumption of livestock products, particularly in TAD-endemic developing countries. The predicted livestock sector growth is expected to take place in tropical and sub-tropical zones, with trends towards larger farm units and more intensive, often industrial production, and with strong increase in trade of livestock and livestock products through informal and formal markets regionally and internationally. The drivers to this process being the increase in demand due not only to population growth and urbanisation but also due to improved economy and incomes of workers.

Regional Economic Communities (RECs) are expected to combine the strengths of their Partner States in collaboration with other regional, continental and international organisations, mobilise support, monitor and evaluate, harmonise regional activities to fight against TADs, to provide for capacity building and to assist in establishing programmes for the specific control of certain TADs based on regional priorities. In pursuit of this the African Union IntraAfrican Bureau for Animal Resources (AU-IBAR) has also plans to support Partner States on animal production and animal health development activities through the coordination of regional economic communities (REC).

2.4 Current EAC Partner States Status of Transboundary Diseases in the EAC

The TADs in the region are rampant and do cause enormous losses in terms of loss of livestock, production, and market access. In addition these TADs are a threat to food security and livelihoods.

The prioritized TADs in the region are as follows:

i. Highly Pathogenic Avian Influenza
ii. Rift Valley Fever
iii. Contagious Bovine Pleuropneumonia
iv. Newcastle Disease
v. Trypanosomosis
vi. Pestes des Petits Ruminants
vii. Contagious Caprine Pleuropneumonia
viii. Lumpy Skin Disease
ix. Rabies
x. African Swine Fever
xi. Tickborne Diseases
xii. Goat Pox

Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumonia (CBPP), Lumpy Skin Disease (LSD), Trypanosomosis, Newcastle disease (ND) and Contagious Caprine Pleuropneumonia (CCPP) and Pest des Petits Ruminants (PPR) are the main diseases that affect trade. Rift Valley Fever (RVF) outbreaks were reported in Kenya and Tanzania in 2006 whereby they disrupted livestock production and trade and caused human loss and public health anxiety.

Pestes des Petits Ruminants (PPR) was experienced in Kenya, Uganda and Tanzania in the pastoral districts of Turkana, Karamoja and Loliondo respectively. The disease caused tremendous economic losses to the affected communities who use small ruminants as their "current accounts".

Lumpy Skin Disease (LSD) has of recent become endemic in the region in the last four to five years. The
disease is causing a lot of production losses to the affected areas especially to the exotic and grade animals. In addition, the disease has negatively impacted on the trade of hides.

Rabies, is endemic and is the single most important public health disease in the priority list. Unfortunately, the Partner States do not avail sufficient resources to control this disease. Highly Pathogenic Avian Influenza (HPAI) has become a reality in the African continent since it has been reported in 11 sub-Saharan countries.

These diseases cause production losses and affect trade regionally and internationally. Their control therefore requires a regional approach for any meaningful economic gains and poverty alleviation. There is therefore need for the control strategy of the under listed diseases to take a regional approach.

2.5 Current Strategic Tads In EAC Region

Foot and Mouth Disease (FMD)

According to characteristics of FMD virus and specifically its variations that lead to presence of variable serotypes and subtypes of the same virus and strains, among TADs, FMD is the most important disease affecting trade in livestock and livestock products local and internationally. It is therefore categorised as a strategic disease. Another such disease is CBPP. However, the control of CBPP is not complicated, though it requires a substantial investment if not handled properly. But CBPP has a history of being controlled in the region, which has not been the case with FMD.

In East Africa, six foot-and-mouth disease virus serotypes SAT 1, SAT 2, SAT 3, O, A and C are are in circulation. In each of the circulating serotypes two or more genotypes have been identified. SAT 1 which is mainly associated with wildlife Buffalos as source, maintaining and amplification host. In this serotype only, four genotypes have been associated to outbreaks in East African Partner States. SAT 1 genotype III circulates in Tanzania and Kenya, SAT 1 genotype IV, V and VI only in Uganda. SAT 2 genotype has in EAC four genotypes; SAT 2 genotype IV circulates in Tanzania and Kenya, SAT 2 genotype VIII only in Rwanda, SAT 2 genotype IX in Kenya and Uganda and SAT 2 genotype XII only in Uganda. Whereas FMD serotype SAT 3 which has two genotypes V and VI is only detected in Uganda. The fourth FMD serotype in EAC is serotype O, which has 3 genotypes; FMD serotype O genotypes III found in Uganda, Kenya and Tanzania. Type V only in Uganda and VI in Uganda and Tanzania. The fifth serotype is FMD serotype A. Its genotypes are III found in Burundi, Kenya and Tanzania, genotype VI in Uganda and Kenya. The sixth serotype of FMD circulating in EAC is FMD serotype C, genotypes I and II were only detected in Kenya.

The presence of different serotypes and genotypes has implication on detection and immunity and response to vaccine. The different serotypes require use of different vaccine that are specific to the serotypes. The variant genotypes also can deviate from the parent serotype to the extent of not providing homologous response. This then entails that for effective vaccine selection and production the strategy is to make sure the circulating various FMD viruses are known, characterised and their spatial and temporal distribution determined to enable application of the appropriate vaccine at each point and place in time. The sharing of the same genotypes between two or more EAC countries shows frequent exchange of the same virus from same source. FMDV is highly infectious and contagious and its characteristics entail close detection and mapping and as a result it introduction into a FMD disease free country is feared and strict importation from and visit to infected areas is prohibited. Making it the most important TAD. It is therefore classified as a Strategic Disease to target. In Latin America and EU countries special commission were put in place to address this complicated disease. In this strategy a commission is proposed to address the strategic diseases, including CBPP and PPR.

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2.6 Financial Impact of TADs and Emerging or Re-emerging Diseases

Economic impact analysed for selected diseases have shown that it is very expensive to control a disease, when it has spread extensively and coming back to normal production is also expensive. For instance, in Asia H5N1 cost 25 to 30 billion USD, SARS 40-50 billion USD, in United Kingdom BSE cost 10-13 billion USD, FMD 18-25 billion USD, whereas in Netherlands Classical Swine Fever 2.3 billion USD to control the diseases in the respective countries. This shows that if not properly addressed and handled the negative impact of these types of diseases in huge. This now call for having in place effective capacity to early detect, report and respond to TADs and zoonotic diseases.

2.7 Sanitary and Phytosanitary Requirement for Effective Regional Animal Health Services

Lessons learnt from international OIE, FAO, WHO, AU-IBAR member states agreements on animal and public health regulations, standards, Codex Alimentarius commission (Codex) as well as Sanitary and Phytosanitary (SPS) procedures provide inter-country and intra regional coordination and agreements obligation. In addition, outbreaks of Highly Pathogenic Avian Influenza and its consequences show that combined, coordinated and harmonised efforts involving Partner States, regional and global organisations resulted in efficient prevention and control of outbreaks that consequently lead to improved trade and economies of respective regional blocks. Further, experiences on Foot and Mouth Disease (FMD) in Europe, shows success were attained to prevent and control it after formation of a functional European Commission for FMD (EC FMD) within the European Union (EU) region. This commission is the oldest EU commission established in 1954. Based on these successful experiences and due to the nature of the diseases, global organisations decided that for progressive control of Transboundary Animal Diseases (TADs) the framework requires facilitation mechanisms that endeavour to empower regional alliances in the fight against TADs and zoonotic diseases. In this strategy, a facilitation mechanism through livestock and an animal health commission is envisaged and proposed.

TADs are diseases that have an inherent potential and characteristic of being highly infectious and therefore when they occur can easily spread from one country to another, and if not addressed can spread globally. Thus, to avoid the risk of spreading diseases, movement of animals, animal products, humans and contact materials from infected areas and the surrounding is prohibited. Therefore, these diseases are the most important limiting factors for market access of Livestock and Livestock Products (LLPs). Consequently, their prevention and control is not only a single country issue but also a concern of neighbouring countries and a large global concern.

*Within the EAC framework, trade is currently being emphasized through an understanding of an East African Community Partner States committed to the goals of Common Markets, taking on national, regional and international markets. Within the EAC Secretariat, under the Productive Sector Directorate, there is a section responsible for crop and animal agriculture that oversees development of a sustainable food security and economy. Its overall objective is trade promotion in the region of agricultural products including LLPs. To guarantee safe trade it gives priority on building capacity and harmonizing observation and application of trade technical barriers, such as sanitary and phytosanitary (SPS) measures within PS, regional and international trading systems. One of these technical barriers to trade is TADs, which not only affect access to international markets but also blocks within country and inter or intra-regional common markets.

This regional strategy on Prevention and Control of Transboundary Animal and or Zoonotic Diseases is for the East African Community (EAC). Transboundary Animal Diseases (TADs) are diseases of economic importance. They spread fast and have the capacity to spread from infected areas to specific disease free areas. When they occur they cause loss in production and death of animals. Thus, to avoid such losses, stringent prevention and control strategies are undertaken. Limitation of trade on animal

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and animal products are instituted, through quarantine of animals and animal products, exposed human are not allowed out of infected areas this also includes in contact materials, Trade limitation is imposed on countries that have such diseases and neighbours at high risk of being infected. Highly Pathogenic Avian Influenza (HPAI) a disease of animal origin (zoonotic) is one of the TADs. In the EAC Partner States (PS) HPAI has not been reported. However, the region is home for many other TADs. To mention a few these include Foot and Mouth Disease (FMD), Peste des Petits Ruminants (PPR), Rift Valley fever, Contagious Bovine Pleuropneumonia (CBPP), Contagious Caprine Pleuropneumonia (CCPP), Lumpy Skin Disease (LSD), African Swine Fever (ASF), Newcastle Disease (ND), Lumpy Skin Disease, Trypanosomiasis and Rabies.

Experiences in outbreaks of TADs specifically FMD and HPAI elsewhere have showed that prevention and control of these diseases was successfully effected through a regional approach. In the context of the complexity of TADs, effectiveness requires:

- Coordinated approach and joint initiatives in keeping watchful on involving diseases situations,
- Working towards improving of tools to fight animal diseases,
- Improving nutrient, management; and
- Efficient technical support required, that can also apart from diseases, handle issues of biosafety and biosecurity, and
- Improving animal management to support disease control.

It would be uneconomical to protect an animal from diseases and let it die of hunger and other non disease factors. The required regional approach for Partner States to jointly manage pest and animal diseases is provided for by the Treaty for the Establishment of EAC and the animals EAC SPS measures and procedures are elucidated in EAC SPS Vol. II. The EAC SPS protocol gives the technical measures and procedural legal environment for operation.

Furthermore, joint management and control of TADs and zoonotics as a means of ensuring the animal sector contributes to social economic welfare of the community will require enhanced and strengthened partnership with private sectors and civil societies in line with the objectives of the EAC (Article 5 g h). TADs are known to be rampant in countries or areas with conflict, Articles 6 and 7 of the EAC Treaty stipulates fundamental principles for mutual trust, political will, peaceful co-existence, good neighbourhood, good governance, specifically rule of law and transparency. These are supporting requirements for reporting and management of TADs and zoonotic diseases as they require transparency and compliancy to agreed policy, strategies, laws, regulations and cooperation.

Operational principles of EAC (Article 7) shall be of use when developing and during implementation of this strategy in the community include:

i. People centred and market driven cooperation;
ii. Provision by the Partner States of an adequate and appropriate enabling environment, such as conducive policies and basic infrastructure;
iii. Establishment of an export oriented economy and;
iv. Emphasis on multi-level participation and involvement of stakeholders in the process of EAC integration

2.8 Regional and Global Guiding Principles

Devastating economic losses to livestock farmers the world over from major outbreaks of TADs was the main stimulus for the creation of a Global Framework for Progressive Control Transboundary Animal Diseases.

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Several international fora and institutions have emphasized the need to prevent and control TADs due to their strong impact on livestock agriculture, trade and food security. The World Food Summit (1996), the International Committee of the World Organisation for Animal Health (OIE, 2002), the 51st Session of the FAO Conference (2001), and the World Food Summit: five years later (WFS, 2002) all recognized the widespread and increasing impact of epidemic animal diseases like FMD, and stressed the need to combine efforts to combat the disease at the national, regional and international level involving all relevant stakeholders.

There is ample evidence from various studies that the spread of TADs will increase unless concerted international action is put into place for effective prevention and progressive control, as currently shown in the HPAI outbreak that FAO, OIE, and WHO are attempting to contain. This is predominantly based on predictions of an unprecedented growth of the livestock sector and of the consumption of livestock products, particularly in TAD-endemic developing countries. The predicted livestock sector growth is expected to take place in tropical and sub-tropical zones, with trends towards larger farm units and more intensive, often industrial production, and with strong increase in trade of livestock and livestock products through informal and formal markets regionally and internationally.

The GF-TADs proposes the effective prevention and progressive control of major TADs as an effective contribution to the achievement of the Millennium Development Goals by providing assistance and guidance to member countries through existing regional specialised organisations and their regional representation offices.

This OIE/FAO initiative combines the strengths of both organisations to achieve agreed common objectives. The GF-TADs endeavour to empower regional alliances in the fight against TADs, to provide for capacity building and to assist in establishing programmes for the specific control of certain TADs based on regional priorities. In pursuit of this the African Union Intra-African Bureau for Animal Resources (AU-IBAR) has also plans to support PS on animal production and animal health development activities through the coordination of regional economic communities (RECs).
3.0 CONSTRAINTS, CHALLENGES AND OPPORTUNITIES

A review of the EAC regional livestock sector reveals the following key constraints, challenges and opportunities.

3.1 Constraints
   a. Low budgetary allocations
   b. Inadequate infrastructure
   c. Inadequate human resource capital
   d. Inadequate policy and legal framework
   e. Weak Public-Private Partnerships (PPPs)

3.2 Challenges
   a. Pastoralism/nomadism
   b. Management of Animal movements
   c. Weakened chain of Veterinary command through devolution of power
   d. Impacts of Climate change

3.3 Opportunities
   a. Political will
   b. Good networks
   c. Skilled Manpower
   d. Population relying on livestock as the source of their livelihood

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### 3.4 Strengths and Weaknesses

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>1 There is institutional arrangement between Partner State and EAC to implement agreed Partner State and cooperate in regional activities agreed Treaty.</td>
<td>Implementation is only by Partner State and at regional is mainly coordination and harmonization</td>
</tr>
<tr>
<td>2 EAC Development Strategy: EAC Agriculture and Rural development Policy and Strategy</td>
<td>Does not cover livestock extensively to direct implementation of the Strategies</td>
</tr>
<tr>
<td>3 The Partner States have in place Animal Health Departments</td>
<td>Weak institutional framework with fragmented chain of Command</td>
</tr>
<tr>
<td>4 Partner States and the EAC have in place Animal Health institutions; Laboratories, Universities, Para professional training institutions</td>
<td>Inadequate human resources specifically trained for specialised techniques to handle highly infectious disease</td>
</tr>
<tr>
<td>5 Mechanism to engage private sector are in place.</td>
<td>The private sector are well developed</td>
</tr>
<tr>
<td>6 There are epidemiological units in all Partner States</td>
<td>Inadequate competent staff to handle varisty epidemiological and emergency responses</td>
</tr>
<tr>
<td>7 The Regional has suitable climatic conditions for animal Agriculture and wildlife</td>
<td>There is possibility for endemicity of infections across different animal species</td>
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4.0 VISION, MISSION AND OBJECTIVES

4.1 Vision Statement

The strategy envisages 'An EAC region free from transboundary animal zoonotic diseases'.

4.2 Mission Statement

An EAC with reduced public health risks and secured regional and global markets, and enhanced trade in livestock and livestock products protecting the livelihoods of farming communities especially the rural subsistence farmers.

4.3 Goals

To increase the contribution of the Livestock sector to socio-economic development and minimize public health hazards in the EAC.

4.4 Overall Objective

The objective of the strategy is to safeguard human and animal health, livelihoods of the farming communities, from outbreaks of TADs through building capacities in the Partner States to be able to establish effective rapid detection and response capacity.

4.5 Specific Objectives

- To strengthen surveillance capacity
- To strengthen diagnosis and laboratory capacity
- To enhance research and development
- To improve information, education and communication
- To enhance prevention and control of transboundary diseases including zoonoses
- To strengthen capacity for containment and case management
- To improve coordination, management and resource mobilization
- To strengthen monitoring and evaluation capacity of EAC
- To develop programmes and projects
- Harmonization of policy, rules and regulations

5.0 STRATEGIC INTERVENTIONS

5.1 Strategic Approaches

The strategic approaches will be based on:

i. Early warning systems
ii. Rapid recognition of diseases outbreaks with reliable diagnostic facilities
iii. Biosecurity / movement management
iv. Stamping out and compensation
v. Vaccination (total, strategic/Ring)
vi. Compartmentalization and zoning
vii. Public awareness and communication – this improves community awareness and cooperation
viii. Socio-economic impact analysis (basis for the choice of strategy; economic viability)
ix. Animal identification and traceability

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5.2 Strategic Interventions in Wildlife Health

The region (EAC) should:

i. Develop regional and harmonised Partner States situational wildlife health policies, contingency plans and strategies for wildlife interventions, not only on health but also on land use;

ii. Harmonise legislation and regulations to support effecting of policies, contingency plans and regulations;

iii. Develop regional assessment tools for wildlife diseases, specifically impact assessment;

iv. Develop, coordinate and support regional research programs on wildlife disease prevention and control techniques, mainly specific disease effective vaccines for different wildlife species and specific disease testing biological (antigens and antibodies) and protocols/procedures;

v. Develop or adopt techniques and programs that can predict/forecast future infections in the EAC region coordinated and facilitated through EAC;

vi. Establish regional bio-bank, register according to location, species and priority, stock old data. Strengthen laboratory diagnosis capacity in the region and EAC Partner States; and

vii. Analyse archived/stored and new diseases causing agents to document and trace changes in their genetic makeup and development of antigenic properties that can signal adaptation to different organs or hosts and means of spread.

5.3 Strategic Interventions at EAC and Partner States Level

i) To strengthen surveillance capacity

Strong surveillance in both animal and human populations is a critical component for early detection of diseases and timely response. This will minimize the extent and impact of potential outbreaks and widespread transmission of pathogens.

The EAC Secretariat shall be responsible for harmonising and standardizing systems for surveillance. The Veterinary Services and Wildlife Authorities in Partner States shall be the principal agencies for implementing national surveillance plans in animals. The Ministries of Health shall be responsible for establishing systems for surveillance, situation monitoring and assessing activities of the pandemic in humans.

ii) To strengthen diagnosis and laboratory capacity

Laboratory strengthening to improve diagnostic capacity for both animal and human health will be a critical element. EAC Technical Management Committee and Animal and Human Health Desks in collaboration with National Laboratories will standardize and harmonize the quality assurance and procurement of laboratory supplies.

iii) To enhance research and development

The objective of research is to improve the understanding of the epidemiology of the disease, diagnosis and socio-economic impact of Transboundary diseases and other zoonoses including Avian Influenza and disseminate the findings to respective Partner States.

The EAC Secretariat will engage national research institutions in human, animal, wildlife and primate research institutes to identify research priorities for the region as part of priority setting and resource mobilisation to sponsor research projects.

iii) To improve information, education and communication

The communication strategy will ensure that the general population receives correct, timely,
specific and relevant information regarding the Transboundary diseases and other zoonoses including Avian Influenza (AI). Communication strategy will further outline steps/actions to be taken in order to prevent and reduce the socio-economic impact of these diseases. The EAC Secretariat shall harmonize the communication materials and equipment in the region. The EAC Secretariat will also on a timely basis produce situation report and circulate to Partner States and stakeholders.

On matters of disease control, the EAC Secretariat will communicate directly with Ministries responsible for human, livestock and wildlife health in the Partner States.

iv) To enhance prevention and control of Transboundary diseases, other zoonoses including Avian Influenza (AI)

EAC Secretariat shall be responsible for harmonisation and coordination systems for prevention and containment of the diseases in animals, humans and wildlife.

EAC Secretariat shall harmonise management guidelines for prioritised diseases. Infection Prevention and Control (IPC) standards and appropriate Personal Protective Equipments (PPE’S), vaccination activities across the Partner States and stock piling of essential pharmaceutical and non pharmaceutical supplies.

EAC Secretariat shall harmonise training modules for animal, human and wildlife health workers at all levels.

EAC Secretariat will coordinate and support Training of trainers and harmonise training guidelines for implementation by Partner States.

v) To strengthen capacity for Containment and Case Management

EAC Secretariat shall harmonise case management guidelines for prioritised diseases, use of appropriate PPE’S, stock piling of essential pharmaceutical and non pharmaceutical supplies. Partner states will train health workers at all levels on the treatment protocols.

vi) To improve coordination, management and resource mobilisation

The overall planning, coordination and resource mobilisation will be handled by the EAC Secretariat. This will be implemented by the Human and the Animal Health Desks at EAC working closely with the Coordinating Committee. Coordination Committee will consist of thirty members, six from each Partner State to include Human Health, Animal Health, Wildlife Health, Avian Health, Animal Production and Communication.

The functions are: overall coordination of preparedness and response to Transboundary diseases and other zoonoses including Avian Influenza (AI), providing policy direction and strategic planning, ensuring accountability, providing an enabling environment and resources for the effective implementation of preparedness within the EAC.

vii) Strengthen Monitoring and Evaluation capacity of EAC

The EAC Secretariat shall monitor the implementation of Integrated National Preparedness and Response Plans in the Partner States.

In order to expedite the work of rapid response teams in Partner States, EAC secretariat will facilitate surge capacity and transport to all the Partner States to enhance rapid response.

viii) Harmonization of policy, rules and regulations

EAC Secretariat will review and harmonize policies and legislation regarding HPAI, other zoonotics, TADs and other infectious diseases.

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6.0 LIVESTOCK AND ANIMAL HEALTH PROGRAMS

To achieve the objectives and strategic activities of this strategy at regional and Partner States levels requires resources and progressive activities that shall involve changes in management of livestock production to support prevention and control introduction and spread of infection. Therefore the need for development of TADs and livestock programs along the following thrust

- Operationalise a regionally led mechanism for control of priority diseases as agreed by Partner States and relevant stakeholders and coordinated by an established and funded livestock and animal diseases department or commission at the EAC;
- The development of national, regional and global early warning and reporting systems for animal diseases;
- Formulate policies, strategies, regulations based on scientifically generated information through enabling and carrying out joint research and training on TADs causing agents at the molecular and ecological levels for more effective strategic disease management;
- Develop capacity to declare freedom from TADs, BSE, CSF, HPAI and emerging infections in the region.
- Mediate and facilitate twinning of Partner States national referral diagnostic laboratories with OIE-FAO Reference Laboratories and Centres of excellence.
- Establish and coordinate diagnostic and livestock research institutions through a system of networks of national and mandated Regional animal health laboratories and research institutions;
- Development of EAC region TAD research and control programmes provided by continental, global technical organisation through AU-IBAR, FAO and OIE including other regional livestock collaborating Centres and research institutes and world animal diseases reference laboratories;
- Establish funding mechanisms to sustainably support EAC joint animal disease research and control activities.
- Develop scientifically based SOPs and directives for management of livestock and wildlife that enhance disease control and productivity

The Outputs and Outcomes for EAC TADs programme shall be:

- Country-based surveillance and disease reporting enhanced through capacity building of epidemiology units and of laboratory diagnostic capacity and personnel;
- Concerted animal disease control programmes developed through the establishment of regional support units;
- Regional and Global Early Warning Systems for TADs established with the collaboration of FAO, OIE and WHO, connected to regional epidemiological systems;
- Planned, coordinated and monitored verified regional freedom from Rinderpest, BSE, CSF, HPAI and any other specific TADs declared freedom by EAC Partner States;
- Coordinated identification, characterization and mapping of Animal populations and primary endemic circulation of FMD and other TADs in all EAC Partners State;
- Linked national, regional and international early warning detection/diagnosis disease confirmation and response capacities for prompt and authoritative disease control of strategic and targeted diseases;
- Collaboration between animal, human and Environmental health experts in the spirit of One Health;
- Ensure continuous professional development and
- Increased and sustainable production and competition for markets

*One Health* Approach

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7.0 INSTITUTIONAL, FINANCIAL FRAMEWORK AND MANAGEMENT ARRANGEMENTS

The Strategy will be implemented at the EAC and Partner States levels by Ministries and institutions responsible for TADs and other zoonoses under the central coordination of the EAC Secretariat.

The EAC recognizes the importance of disease control and the contribution of animal resources to the economy and social welfare of the East Africans.

The EAC will link with other partners in implementation of this Strategy. The key stakeholders in implementation of the Strategy include:

i. The East African Community
ii. The Public Sector
iii. The Private Sector
iv. International Organizations

7.1 The East African Community
The EAC, through the Agriculture and Food Security Council of Ministers, will guide implementation of this Strategy. For its effective and efficient implementation, it will be necessary to strengthen the capacity within the Secretariat and in Partner States.

7.2 The Public Sector
The EAC Partner States will create an enabling policy and institutional framework and mobilize resources for implementation of this Strategy. The successful implementation of the Strategy will depend on how effectively various stakeholders are involved.

7.3 The Private Sector
The sector comprises a wide range of players such as individual farmers, farmer associations, traders, breeders, service providers, NGOs, CBOs, FBOs among others. The EAC will promote continuous dialogue and involvement of the private sector to ensure effective implementation of this Strategy.

7.4 International organizations
The key international organizations relevant for successful implementation of this Strategy include AU-JIBAR, EAC, WFP, OIE, UNICEF, WWF, UNDP, ILRI, ASARECA and Development Partners among others.

The EAC will collaborate with international organizations and Development Partners in implementation of this Strategy.

8.0 COORDINATION, MONITORING AND EVALUATION

The coordination, monitoring and evaluation of the TADs activities will be done by the Steering and Technical Experts Committee in EAC. Professional and Producers Networks will also be engaged in monitoring and evaluation activities.

8.1 The Steering Committee
The Steering Committee shall be composed of the Chief Veterinary Officers (CVOs), Directors of Animal Production, Directors of Wildlife Department/Services, Directors of Medical Services, Directors of Information and Communication. Other stakeholders may be incorporated.

"One Health" Approach
The mandate of the Steering Committee will be to:

- Provide overall policy and strategic guidance on all issues on TADs control and other zoonoses in the region
- Approve the work plans and cost estimates of the technical experts committee
- Forward the approved work plans and cost estimates to the Agriculture and Food Security Council of Ministers
- Carry out any activities assigned to them by the Council of Ministers

8.2 Technical Management Experts Committee

The Technical Management Experts Committee shall be composed of Technical Officers from the Veterinary Services/Departments, Laboratory and Epidemiology departments, Animal Production, Avian Health Experts, Wildlife Departments/Services, Human Health Services and Information and Communication Departments. Other stakeholders may be incorporated.

The responsibilities of the Technical Management Experts Committee are to:

- Make work plans and cost estimates for the Partner States on TADs and other zoonoses
- Forward the draft work plans to the Steering Committee for approval
- Formulate disease control strategies
- Coordinate preparation of preparedness plans
- Coordinate and oversee the implementation of National programmes on TADs and other zoonoses control
- Review and recommend amendments to policy and legislation
- Review the Partner States disease reports, assess the disease status in the region and advise the various policy makers
- Develop indicators for monitoring and evaluation
- Carry out any other duties assigned by the Steering Committee

8.3 Professional Networks

The professional networks shall include laboratory and epidemiology disease specific specialists, who amongst others will monitor and evaluate the overall situation of TADs and Zoonoses and the overall performance of the regional disease prevention and control strategy. The networks will provide technical services and advice to the EAC Secretariat and subsequently to the Technical Management Experts Committee. Through the supervision and facilitation support from the EAC Secretariat the Specific Disease Experts shall be constituted to undertake special assignments on cross border diseases issues such as, outbreaks investigation, research, risk and impact assessments, development of Regional Standard Procedures, generate scientific based information for SPS and Trade negotiations and solutions for intra and inter country conflicts.

8.4 Producer Associations and Other Stakeholders

The producer associations will advocate and lobby the Partner States and development partners for the control TADs and other Zoonoses control in the EAC. The producer associations and other stakeholders will lobby their members and advocate for compliance to disease regulations to enhance bio-security.

"One Health" Approach

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9.8 SUPPORTIVE DOCUMENTS

i. Treaty Establishing EAC
ii. The EAC Development Policy
iii. The EAC Rural and Agriculture Development Policy 2005-2030
iv. The EAC Agriculture and Rural Development Strategy 2005-2030
v. EAC Common Market Protocol
vi. EAC Livestock Reports
vii. EAC Development Strategy
viii. East African Community: Facts and Figures 2010
ix. EAC Partner States National Livestock Policies and Strategies
x. Global Framework of control Transboundary Animal Disease
xi. Working to overcome the Global Impact of Neglected Tropical Disease (First WHO report on Neglected Tropical Disease)
xii. Integrated Control of Neglected Zoonotic Disease in Africa — Applying the ‘One Health’ Concept
xiii. Sustaining Global Surveillance and Response to Emerging Zoonotic Disease
xiv. Livestock and Fisheries Programme Strategic Plan 2009 to 2016 — Transforming livestock and fisheries for improved livelihoods — ASARECA
### Annex 1: Livestock Population

#### Table 1. Livestock Populations Year 2001 to 2009 According to Species

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Source: East African Community Facts and Figures 2010

*"One Health" Approach*
Annex II: Logical Framework

Overall Objectives:
To control transboundary animal disease and zoonosis to support trade and economic growth in the EAC

Specific Objectives:
1. Establish and strengthen of a regional framework to manage animal health issues.
2. Enhance Partner States ability to prepare and respond to animal health emergencies in livestock wildlife.
3. To enhance safety trade through SPS capacity building on measures and procedures
4. Enhance regional disease monitoring and evaluation

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<th>Expected Outputs</th>
<th>Success Indicators</th>
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<td>1.1 Harmonised animal health policies Strategies Developed.</td>
<td>i. Policies and strategies harmonised and updated within the EAC</td>
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<td>ii. Financing mechanisms ensuring support for institutions and interventions</td>
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<td>iii. Regional planning and partnerships with OIE, FAO, AU-IBAR in conformity with Alive Platform and GF-TADs strategic orientations</td>
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<td>iv. Definition of roles international agencies</td>
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<tr>
<td>1.2 Timely disease detection, prevention and Control Coordinated</td>
<td>i. Coordination meeting supported</td>
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<td>ii. Institutional organizational and regulating environment enhanced for disease control</td>
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<td>iii. Increased disease incidence reporting at national and regional level</td>
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<td>iv. Financial support for active and passive surveillance</td>
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<td>v. Improve veterinary services according to PVS, Gap analysis and INAPS</td>
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<td>vi. Strengthening of the laboratory and Epidemiological networks in the EAC region</td>
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<td>vii. Anchoring of the East African Laboratory and Epidemiological networks to the EAC Secretariat</td>
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<td>viii. Establishment of an information system in the EAC</td>
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<td>ix. Support continued professional development</td>
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### 2.1 Early warning and quick detection

1. Monitoring and evaluation of Partner Disease situation
2. Collaboration with key developments in the region
3. Establishing regional centers of excellence and referral laboratories

### 2.2 Outbreak Response

1. Regional and Partner Emergency plans for all disease categories
2. Establishment of well-trained rapid response teams
3. Partnerships and twinning with scientific centers of excellence
4. Establishing bio-safety laboratories
5. Good practices for routine vaccinations and biosecurity adoption by all partners

### 2.3 Social-economic impact analysis of diseases

1. Identification of impacts of different levels of disease control
2. Coordination of strategies developed for one health plan
3. Decision making on compensation schemes developed for use
4. Regional control plans refined based on impact analysis results

**"One Health" Approach**
| 3.1 Causes of disease outbreaks defined | i. Drivers for emergency and spread of disease between different animal species defined including wildlife and humans  
ii. Temporal and spatial distribution of disease in the region established  
iii. Natural foes for disease in the region established  
iv. Regional archive of different pathogens established, analysed and shared with international partners |
|---|---|
| 3.2 Joint regional activities for disease control established | i. Regional disease research programmes developed and funded  
ii. Regional simulation exercise carried out to test contingency plans  
iii. Sensitization of stakeholders on disease control  
iv. Awareness campaigns for public and at risk communities implemented  
v. Transboundary ecosystems identified and regional control of disease organised  
vi. Regional thematic expert groups identified and functional  
vii. Regional coordination carried out  
viii. Regional coordination mechanisms sustained  
ix. Regional Animal Health data base developed |
| 4.1 Participation of EAC in safe livestock trade enhanced | i. EAC Secretariat and national personnel trained in SPS matters  
ii. EAC Secretariat and National experts trained in Animal Health standard setting processes  
iii. Participation of private stakeholders in Animal Health standard setting processes enhanced  
v. National and regional SPS structures developed, harmonised and strengthened  
v. Marketing Information and structures strengthened |