



EAST AFRICAN COMMUNITY

REGIONAL PROJECT FOR THE PREVENTION AND CONTROL OF ANIMAL TRANSBOUNDARY DISEASES IN EAST AFRICA: 2004 - 2010

(Approved by the EAC Council of Ministers)
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ACRONYMS

ADRI	-	Animal Disease Research Institute
CBAHWs	-	Community Based Animal Health Workers
CBPP	-	Contagious Bovine Pleuropneumonia
c-ELISA	-	Competitive Enzyme Linked Immunosorbent Assay
CFT	-	Compliment Fixation Test
COMESA	-	Common Market for East and Southern Africa Creation Paper
CVL	-	Central Veterinary Laboratory
DVS	-	Director Veterinary Services
EAC	-	East African Community
EMPRESS	-	Emergency Preparedness
ERSWEC	-	Economic Recovery Strategy for Wealth and Employment
FAO	-	Food and Agricultural Organisation
FMD	-	Foot and Mouth Disease
GDP	-	Gross Domestic Product
ILRI	-	International Livestock Research Institute
KARI	-	Kenya Agricultural Research Institute
KEVEVAP	-	Kenya Veterinary Vaccines Production Institute
LEWIS	-	Livestock Early Warning Information System
LGAs	-	Local Government Authorities
LIRI	-	Livestock Research Institute
MAAIF	-	Ministry of Agriculture Animal Industry and Fisheries
NAADS	-	National Agricultural Advisory Services
OIE	-	Office Internationale des Epizooties
PA	-	Provincial Administration
PEAP	-	Poverty Eradication Action Plan
PMA	-	Plan for Modernization of Agriculture
PRSP	-	Poverty Reduction Strategy Paper
SAST/SABT	-	Slide Agglutination Serum Test / Slide Agglutination Blood Test
SPS	-	Sanitary and Phytosanitary
STPU	-	Stock Theft Prevention Unit
SUA	-	Sokoine University of Agriculture
TADs	-	Transboundary Animal Diseases
TOR	-	Terms of Reference
VIC	-	Veterinary Investigation Centre
VICs	-	Veterinary Investigation Centres
VILs	-	Veterinary Investigation Laboratories
WTO	-	World Trade Organization

EXECUTIVE SUMMARY

1.0 Introduction

The East African Community has enormous animal resources that contribute substantially to the economies of EAC Partner States and livelihood for livestock keepers, especially pastoralists who form a large proportion of the regional population. Livestock, to a great extent, utilise marginal rangelands that cannot be utilized for crop production, although there is a small but well developed intensive livestock production system for dairy, poultry and wool sheep and pig production. Due to the vast genetic resource comprising of a variety of indigenous animal species that are easily adaptable to the environment, there exists a potential in the region for adequate supply of animals products for local consumption and export.

The regional livestock resource base consists of 36.2 million heads of cattle, 29.4 million goats, 12.8 million sheep, 3.5 million pigs, 108.6 million poultry and 0.9 million camels. On average the livestock sector contributes 15% to the GDP of the region. It produces 869,100 metric tones of meat, 4,619 metric tones of milk, 4,724,902 pieces of hides and 8,947,357 pieces of sheep and goatskins. The regional average per capita consumption of meat and milk products is estimated at 9 Kg and 35 Kg respectively, which represents 19% of the per capita consumption of both commodities as recommended by the FAO.

The overall objective of animal production in EAC is to produce enough quality animals and animal produce to match the requirement of the rapidly increasing human population in the region and create surpluses for the export market. However, this cannot be achieved unless and until major transboundary animal diseases are controlled and eventually eradicated in the region.

The livestock potential is not fully exploited and a lot needs to be done to increase the export earnings. The challenge, therefore, is to put in place policies, strategies and programmes that will increase production and productivity, processing and marketing in the livestock sector so as to improve the per capita consumption and increase export earnings from livestock and livestock products.

The EAC has already prepared an Agricultural Policy and Strategy which, among other things, emphasises the control and eradication of Transboundary Animal Diseases.

It is against this background that the EAC Council of Ministers decided to prepare and implement an EAC project for the control of transboundary animal diseases in order to improve food security, poverty alleviation and facilitate trade in livestock and livestock products both within and outside the region.

2.0 Rationale for the Project

The constraints hindering the development of the livestock sector include those related to production, marketing, institutional arrangements, livestock research, delivery of animal health and extension services, unavailability of capital for investment, poverty, poor infrastructure, and lack of reliable livestock data. However, the most limiting constraint is the prevalence of livestock

diseases, particularly the transboundary animal diseases. Of these, Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumonia (CBPP) and Rinderpest are the most important in the region. Their prevalence impact negatively on livestock production and trade in livestock and livestock products, in the region and export.

Given the constraints affecting the livestock sector in general and the disease control in particular, and taking into account the resource constraints, particularly, low budgetary allocation in all the three Partner States, it is apparent that individual Partner States are unable to adequately undertake measures to control and/or eradicate transboundary animal diseases. This calls for adequate funding from the Partner States in addition to a regional approach in order to optimize resource utilization, coordination and harmonization of disease control programme.

The control of TADs will enable the East African region to meet sanitary and phytosanitary requirements of the OIE and WTO and, therefore, enable smooth trade in livestock and livestock products within the region and create access to competitive international markets. This will result in improved incomes, food security and livelihood of the people, thus increasing the contribution of the livestock sector to the socioeconomic development of East Africa.

This project has, therefore, been formulated to address TADs in general with special focus on FMD and CBPP. It is one of the initiatives to operationalize the East African Policy on Agriculture and Rural Development.

3.0 Project Goal, Objectives and Outputs

The goal of the project is to increase the contribution of Livestock sector to socio-economic development, peoples' incomes, food security and poverty reduction in the East African Community.

The overall objective of the project is to control and eradicate Trans-boundary Animal Diseases in the East African Community so as to increase livestock production and productivity and promote regional and international trade. The main focus will be on the control and eradication of FMD and CBPP.

The specific objectives are:

- i. To harmonize and implement policies, laws and regulations relating to the control of trans-boundary animal diseases;
- ii. To promote the participation of all the stakeholders, including the Local Government Authorities and the farming communities, in the control of TADs;
- iii. To improve reporting, diagnosis, surveillance and monitoring of animal diseases in general and TADs in particular;
- iv. To increase livestock production, processing and marketing;
- v. To increase the cattle immunity and resistance to diseases;
- vi. To establish a sustainable TADs institutional control mechanism in the EAC Region; and
- vii. To establish an information system for TADs.

To achieve the project objectives, the following will be the outputs.

Output 1: Management of movement of Livestock and Livestock products strengthened

Effective management and control of the movement of livestock and livestock products is one of the most effective ways of preventing spread of diseases within the countries and beyond. The project will support this endeavor by implementing the following activities:

- (i) Implementing official guidelines for the control of livestock movements in the region as per EAC Sanitary and phytosanitary SPS measures and procedures
- (ii) Reviewing and harmonising legislation and regulations governing animal movement
- (iii) Carrying out a survey and mapping of the current Livestock movement pattern
- (iv) Creating awareness amongst stakeholders on the hazards of uncontrolled animal movement.
- (v) Enforcing regulations for the movement of Livestock and their products for trade (export/import)

Specifically, the project will undertake the following: Production and dissemination of guidelines to all stakeholders; Produce radio programmes; interaction with WTO, OIE, SPS Committee and other international organizations; sensitizing and creating awareness; reviewing and harmonizing legislation; carrying out and mapping for livestock movement; awareness creation and mass communication. Enforcement of regulations will be achieved through construction of quarantine stations/holding grounds and checkpoints, training of stakeholders and providing logistical support at quarantine stations. The cost for this output will be USD 5,139,000 equivalent to € 4,282,500.

Output 2: Diagnostic, Research, Vaccine Production and Quality Control Capacities Established/Strengthened

To strengthen the diagnostic capacity within the region, the following activities will be undertaken: Conduct needs assessment of the laboratories; establish 8 satellite laboratories for sample collection and 8 mobile laboratories for CBPP screening; equip 3 national laboratories, 15 regional/VICs/VILs within the ecosystems and district laboratories and train staff on proper sample collection; train personnel at all levels; conduct sensitization meetings with livestock keepers on the importance of laboratory diagnosis of diseases.

The cost for strengthening the diagnostic capacity will be USD 1,698,000 (€ 1,415,000).

To strengthen the research capacity within the region, the following activities will be undertaken: Carry out research needs assessment; establish/strengthen the physical infrastructure; develop human resource capacity at various levels; sensitize and create awareness amongst the stakeholders on the importance of research; promote collaboration with other research institutions nationally, regionally and internationally; carry out research in the roles of wildlife in the epidemiology of epidemic diseases; Disseminate research results and feedback to livestock keepers and other stakeholders; carry out socio-economic studies on impact on the control of CBPP /FMD and strengthen the capacity of national research institutions in the Partner States to undertake research on FMD and CBPP. The cost will be USD 988,500 (€ 823,334).

Regarding vaccine production, the Project will strengthen the capacity of Kenya Veterinary Vaccines Production Institute (KEVEVAPI) to undertake supply of FMD and CBPP vaccines for the region on cost effective and sustainable basis. The estimated cost for this undertaking will be USD 210,000 (€ 175,000).

Output 3: Livestock identification and traceability mechanisms established and operational

The project will support Partner States to carry out animal identification programmes using the branding method, by undertaking the following activities:

Review and harmonise the identification symbols in the Partner States; produce 14,600 brands; hold consultative meetings with stakeholders; and support mass application of branding. This will cost USD 856,000 (€ 713,333).

Output 4: Regional diseases reporting, surveillance and monitoring in place

Development of a surveillance system will involve communities since they are with the animals all the time and are actually the front line informers on the disease outbreaks. The activities to be implemented include:

Establishing a regional surveillance system; organizing formation of local disease control committees; training 60 local communities and 60 technical staff to recognize and report FMD and CBPP; constituting and training mobile screening teams; equipping three national epidemiology units; supporting the veterinary section in the wildlife to undertake surveillance; supporting dissemination of reports. The estimated cost for this output will be USD 1,438,600 (€ 1,198,833).

Output 5: Vaccination programs coordinated and harmonized

The project will support vaccination programmes in 4 priority ecosystems in the first phase. This will comprise 50% of the total cattle population in the region. Vaccination will be done twice a year for FMD for a period of 3 years, and once a year for CBPP for a period of 3 years.

The following activities will be undertaken:

Mapping disease control blocks; carrying out livestock census in the blocks; procuring of 96,796,800 doses of FMD and 48,443,400 doses of CBPP vaccines, vaccination equipment, vehicles and motorcycles; and providing logistical support to vaccination campaigns. The total cost for the output will be USD 115,525,920 (€ 96,271,600).

Output 6: Regional emergency preparedness system in place.

Emergency preparedness system will be necessary for early detection and rapid responses to diseases outbreaks. The following activities will be carried out:

Develop a framework for early warning and reporting system; train staff in emergency preparedness; provide communication facilities between field officers and epidemiology units; provide emergency funds; support collaboration and reporting to other international bodies

connected to animal health; and carry out risk analysis for importation and export periodic reviews and evaluation. The cost for this output is USD 1,658,000 (€ 1,381,667).

Output 7: Policies, laws and regulation related to control of TADS reviewed and harmonized.

In order to accommodate the aspirations of the people in the EAC region and to improve the livestock sector, there is a need for common policies, laws and regulations related to the control of transboundary diseases. The EAC Secretariat will undertake the necessary reviews of policies, laws and regulations on veterinary services. Thereafter, sensitization of stakeholders on the common policies, laws and regulations (general public, LGAs, law enforcement agencies, livestock traders, extension officers, officers at checkpoints and international border posts, etc) will be undertaken, so as to enhance their participation in implementation. The projected cost for the output will be USD 35,000 (€ 29,167).

Output 8: Marketing of livestock and livestock products improved.

Livestock marketing and trade is primarily a private sector good. However, the Partner States will create an enabling environment for the private sector to take up its role more efficiently. Both local and foreign investors will be encouraged to participate in livestock marketing trade.

In order to improve the marketing, the following activities will be undertaken:

Carry out an assessment of the livestock marketing system in the region and develop requirements; carry out market survey within and outside the region and disseminate the information; develop and harmonise standards for marketing infrastructure; produce and disseminate standards by Partner States; train staff on meat standards and processing, and sensitize local and external investors. This output will cost USD 678,000 (€ 565,000).

Output 9: Livestock Export zones established (These areas must be owned by the Community)

The project will support the establishment of livestock export zones in Partner States. It will also support initiatives, such as the Red Sea Commission under the auspices of AU/IBAR, to facilitate negotiations between Partner States and potential importers. The main players will be the private sector, with the public sector providing technical guidance. It is anticipated that six export zones and six holding grounds (two per each of the Partner States) will be established by the end of the Project to facilitate trade both locally and internationally. The projected cost for this output will be USD 702,000 (€ 585,000).

Output 10: Regional and National Institutional framework for the implementation of the control of TADs in place and functional

The institutional framework for implementing the project will be in conformity with the structures of the EAC as well as those in the Partner States. At the EAC Secretariat, the project will be coordinated under the Agriculture and Food Security Committee.

A Regional Project Coordinating Office and a Regional Steering Committee will be established at the EAC Secretariat. In each Partner State, a national coordinating office will be established within

the Directorate/Department of the Veterinary Services and under direct supervision of the Director of Veterinary Services. The national Project Coordinator will ensure proper planning, implementation and supervision of all the project activities in the Partner States, supported by a national steering committee. He/she will also coordinate with the EAC Secretariat as well as other Partner States in implementing related activities such as the joint vaccination programmes, surveillance and control of movement of animals and animal products.

For field activities, zonal coordinators will be appointed to supervise a number of specified districts in the ecosystem within the Partner States. These will report to the national coordinators and will implement activities by working with the regional, provincial and/or district veterinary officers. Collaboration between zonal supervisors within the same ecosystems that cut across borders of Partner States, will be promoted to enhance synchronization of related activities and sharing information.

The Regional Project Coordinator will be a full time EAC employee on contract. However, the National and Zonal Coordinators will be seconded to the Project by the Governments of the Partner States. The projected cost for the output will be USD 3,849,800 (€ 3,208,167).

During implementation of activities, the following cross-cutting issues will be incorporated in every output: Capacity building, Infrastructure development, Gender, Environment and Sustainability.

Output 11: Regional Information System for TADS established:

The project will establish an information system at the EAC Secretariat as a support service to other outputs. The activities will include: preparing a mechanism for data collection, analysis, collation and dissemination; establishment of a data base; putting in place communication mechanisms to enhance flow of information during implementation of the project.

The estimated cost will be USD 50,000 (€ 41,667). Details regarding budgets for the output will be elaborated at the commencement of the project.

4.0. Budget

The cost estimates for the whole project will be USD 132,828,820 equivalent to € 110,690,684. The cost per output is summarized in the following table:

Output	Amount	
	USD	€
1. Management of movement of livestock and livestock products strengthened	5,139,000	4,282,500
2. Diagnostic, research and vaccine production and quality control capacities established/strengthened	2,896,500	2,413,750
3. Livestock identification and traceability mechanisms established and operational	856,000	713,333
4. Regional diseases reporting, surveillance and monitoring in place	1,438,600	1,198,833
5. Vaccination programmes coordinated and harmonised	115,525,920	96,271,600
6. Regional emergency preparedness system in place	1,658,000	1,381,667
7. Policies, laws and regulations related to the control of TADs reviewed, revised and harmonised	35,000	29,167
8. Marketing of livestock and livestock products improved	678,000	565,000
9. Livestock export zones established	702,000	585,000
10. Institutional framework for the implementation of the control of TADs in place and functional	3,849,800	3,208,167
11. Regional Information system for TADs established	50,000	41,667
TOTAL	132,828,820	110,690,684

5.0. Expected Benefits

Substantial benefits to the region will accrue from a successful campaign to control and eradicate transboundary animal diseases. This will enable the EAC Countries to increase livestock production and productivity, processing and marketing, particularly the access to international markets for livestock and livestock products. It will also increase income at local level thereby directly contributing to poverty reduction and improved living standards.

It is estimated that 225,000 metric tons of meat worth USD78, 750,000 will be exported annually from the region. In the leather industry, 1,200,000 pieces of leather worth USD24, 000,000 will be exported annually.

The estimated annual export earnings therefore will be USD102, 750,800. In addition, an estimated 1,100, 000 metric tons of meat valued at USD1, 629,375,000 will be produced for the local market annually.

Other benefits include:

- ii. Creation of employment;
- iii. Improved business in areas where slaughterhouses will be built;
- iv. Development of allied industries such pharmaceuticals, animal feeds and organic fertilisers;
- v. Improved standard of living of the people through increased income and nutrition; and
- vi. Food security for the Community.

The Government Finland through its financial assistance to the EAC kindly supported the preparation of this project proposal.

1.0. BACKGROUND

The objectives of the East African Community (EAC) as reflected in Article 51 of the Treaty are aimed at widening and deepening co-operation among the Partner States in political, economic, social and cultural fields, research and technology, defence, security, legal and judicial affairs for their mutual benefit. To this end, a number of agreements have been mutually concluded and strategy papers developed. These include sector-based committee reports and decisions towards the increase of cross-border trade and harmonisation of policies and legislation on fisheries, disease and pest control.

As regards agriculture and food security, the Development Strategy for the East African Community (2001-2005) and the Treaty recognise the importance of the agricultural sector in the economic development of the Partner States. The EAC recognises that, in the immediate future, agriculture will continue to be the base for sustainable economic growth and development. This is due to the fact that the majority of people in East Africa live in the rural areas and derive their livelihood from agricultural production. Most of the present industries in the region are agro-based and use agricultural raw materials as inputs. Furthermore, the export trade of each Partner State is presently dominated by agro-based commodities and these will continue to be of importance in an increasing and highly competitive future trade. It is within this context that animal production is regarded as a major sub-sector in contributing to overall agricultural production.

The region has enormous animal resources that provide livelihood for livestock keepers and pastoralists who form a major proportion of the regional population. Livestock, to a great extent, utilise marginal rangelands that cannot be utilized for crop production, although there is a small but well developed intensive livestock production system for dairy, poultry and wool sheep and pig production. There exists a potential in the region for adequate supply of animal products for local consumption and export. The genetic base is vast with a variety of indigenous animal species that are easily adaptable to the environment.

The main constraints facing animal production in the region include the low productivity of indigenous animals, high prevalence of major transboundary animal diseases and poor processing and marketing infrastructure. The main challenge facing the region is that of increasing livestock production in the face of rapid land degradation, subdivision and increase in human population.

The overall objective of animal production at EAC level is, therefore, to produce enough quality animals and animal produce to match the requirement of the rapidly increasing human population in the region and create surpluses for the export market. However, this cannot be achieved unless and until major transboundary animal diseases are controlled and eventually eradicated in the region.

It is against this background that the EAC Council of Ministers decided to prepare and implement an EAC project for the control of transboundary animal diseases in order to improve food security, poverty alleviation and facilitate trade in livestock and livestock products both within and outside the region.

2.0 SITUATIONAL ANALYSIS

2.1 Status of the Livestock Industry in East Africa

The regional livestock resource base is shown in Table 1. It consists of 36.2 million heads of cattle, 29.4 million goats, 12.8 million sheep, 3.5 million pigs, 108.6 million poultry and 0.9 million camels. The contribution of the livestock sector to the GDP of Partner States is shown in Table 4. On average the sector contributes about 8.5% to the GDP of the region. The production figures for livestock products for the year 2002 are indicated in Table 2. The region produced 869,100 metric tones of meat, 4,619 metric tones of milk, 4,724,902 pieces of hides and 8,947,357 pieces of sheep and goatskins. The regional average per capita consumption of meat and milk products is estimated at 9 Kg and 35 Kg respectively. This represents 19% of the per capita consumption recommended by the Food and Agricultural Organization (FAO) for both products (50 Kg and 200 Kg of meat and milk respectively).

Statistics from the export of livestock and livestock products are not fully documented, as there is a lot of informal trade within the region and with neighboring countries. The data reflected in Table 5 is, therefore, indicative. Nevertheless, the livestock potential is not fully exploited and a lot needs to be done to increase the export earnings.

The challenge, therefore, is to put in place policies, strategies and programmes that will increase production and productivity, processing and marketing in the livestock sector so as to improve the per capita consumption and increase export earnings from livestock and livestock products.

Table 1: Livestock resource base (Millions)

Country	Cattle	Goats	Sheep	Pigs	Poultry	Camels	Donkeys
Uganda ¹	6.3	6.8	1.3	1.7	32.6	-	-
Kenya ²	12.2	10.0	8.0	0.3	29.2	0.9	0.35
Tanzania ³	17.7	12.6	3.5	1.5	47	-	-
Total	36.2	29.4	12.8	3.5	108.6	0.9	0.35

Table 2: Annual Production of livestock products

Country	Meat (metric tonnes)	Milk (metric tonnes)	Hides (pcs)	Skins
Uganda	169,000	1000	1,129,600	2,269,200
Kenya	377,000	2800	2,195,302	5,528,157
Tanzania	323,100	814	1,400,000	1,150,000
Total	869,100	4,614	4,724,902	8,947,357

Table 3: Per capita consumption of livestock products

Country	Meat (Kg)	Milk (Kg)
Uganda	5.6	40
Kenya	14	80
Tanzania	6.0	25
Regional Average	9.0	35

Table 4: Contribution of livestock sector to GDP

Country	% National GDP	% Agricultural GDP
Uganda	9	17
Kenya	10	27
Tanzania	6	17.9
Regional %	8.3	20.6

2.2. The Macroeconomic Policies

For the last ten years, the governments of the Partner States have been implementing policy reforms and structural adjustment programmes aimed at improving the delivery of services and the welfare of the population. These include, but not limited to, the following:

- i. Promoting privatization and liberalization of production, processing and marketing services;
- ii. Enhancing the participation of grass-root stakeholders in planning and decision making on the issues that affect the communities through the policy of decentralization; and
- iii. Promoting good governance by encouraging democratization at all levels of government.

The main focus for socioeconomic development is poverty reduction. Accordingly, the Partner States have developed Poverty Reduction Strategy Papers (PRSP) to guide the development strategies. Uganda, for

example, is guided by the Poverty Eradication Action Plan (PEAP, 2000), which has a target of reducing poverty to less than 10% by 2017.

In conformity with the macroeconomic policies, Partner States have been developing, and/or reviewing specific policies and legislation to guide the development of the Agricultural Sector in general and the livestock industry in particular. The following is an illustration of the developments in Partner States

i) Kenya:

Kenya has developed the Economic Recovery Strategy for Wealth and Employment Creation (ERSWEC, 2003), which will guide the development programmes, including the livestock sector for the period 2003-2007. In addition, Kenya has reviewed a number of policies such as those related to disease and vector control, hides and skins and leather development, veterinary public Health, laboratory services, animal breeding, Dairy Management and Animal Welfare. Consequently, several legislative Acts are also under review. They include:

- a. Animal Diseases Act;
- b. Pharmacy and Poisons Act;
- c. Veterinary Surgeons Act;
- d. Animal welfare Act;
- e. Meat Control Act;
- f. Hides and Skins Improvement Act; and
- g. Cattle Cleansing Act.

ii) Uganda:

To address one of the pillars of PEAP, Uganda has formulated and operationalised the Plan for Modernisation of Agriculture (PMA, 2000). PMA is a holistic, multi-sectoral strategy framework for poverty eradication, aimed at transforming subsistence farmers who constitute 70% of the population, into commercial market oriented producers. Its priority areas include research and technology development, delivery of advisory services, agricultural education, improving rural infrastructure, rural financial services, agro-processing and marketing and natural resource management.

In conformity with the PMA principles and the macro-economic policy reforms, the role of government in the livestock sector has changed. It is no longer involved in direct service delivery. Its role is mainly facilitatory, by providing an enabling environment for other service providers. This is achieved through formulation of policies, legislation and regulations; national planning; setting standards for service delivery; control of epidemic diseases; veterinary inspection, enforcement of regulation technical support to Local Governments; strategic interventions to

promote export; and monitoring and evaluation of programmes and projects.

Consequently, a number of policies in the livestock sector have been formulated to guide the development of the livestock industry. Examples include the following:

- a. Policy on the delivery of veterinary services, 2001;
- b. Veterinary Drug Policy, 2002;
- c. Meat policy, 2003;
- d. Animal Feeds Policy, 2003;
- e. Hides, Skins and Leather Policy, 2003; and
- f. Animal Breeding Policy (1998).

In addition, a number of legislations in the livestock sector have been enacted. They include Animal Breeding Act (2001), the Dairy Development Act (1998) and the National Agricultural Advisory Services Act (NAADS, 2001). Others are being reviewed to make them relevant to the present challenges. These include The Veterinary Surgeons Act (1964), The Animal Diseases Act (1964), Cruelty to Animals Act (1964), The Cattle Traders Act (1964), Hides and Skins Traders Act (1964) and the Rabies Act (1964).

Other interventions to guide the development of the livestock sector have been the formulation of a comprehensive Agricultural Development Strategy and Investment Plan, Livestock Development Strategy and Animal Diseases Control Strategy (2003)

iii) Tanzania

The overall objective of the recent agricultural reforms in Tanzania is to commercialize agriculture so as to increase income levels and assure basic food security for the nation. Government is aware that the control of animal diseases is crucial to the achievement of this objective. To this end, it has placed the responsibility of disease control at farm level on the livestock keeper, while facilitating the provision of requisite services and inputs through the private sector. The government has assigned itself the role of controlling epidemic diseases, exercising sanitary control and inspection, fighting pests and diseases beyond farm level, and establishing a regulatory framework for veterinary products and services.

Since the 1990's there have been a number of reforms that affect the livestock sector. These include reforms in the civil service and local government. Veterinary staff in the districts have been removed from the direct control of the Director of Veterinary Services and placed under the jurisdiction of the Local Government Authority. Other reforms include:

- a. The merger of Pharmaceutical and Poisons Act and Food Quality Control Act 13 (1978) into a single law called Tanzania Food, Drug

- and Cosmetic Act overseen by the autonomous Tanzania Food and Drug Authority;
- b. The Animal Disease Ordinance Cap. 156 and Veterinary Surgeons Ordinance Cap. 376 have been repealed. New Acts namely Animal Diseases Act and Veterinary Act (2003) have been enacted;
 - c. The following Ordinances are under review: Animal Protection Ordinance Cap. 153, Animal Pounds Act Cap. 154 (1930), Dairy Industry Act Cap. 467, Tsetse Fly Control Ordinance Cap. 100 (1960); Cattle Grazing Act Cap.155, Hides & Skins Trade Act Cap.544.
 - d. A new law for Meat Industry and Animal Breeding are being formulated

2.3. Agriculture and Rural Development Policy and Strategy for the East African Community

Following the signing of the Treaty establishing the East African Community, one of the priorities identified for widening and deepening co-operation among the Partner States was agriculture. This was based on the fact that agriculture is the mainstay of the Partner States' economies. In the year 2000, for example, agriculture accounted for 24.5%, 42% and 50% of the GDP for Kenya, Uganda and Tanzania, respectively. Consequently, the EAC Agriculture and Rural Development Policy and Strategy have been formulated.

The rationale for the Agriculture and Rural Development Policy is based on the following:

- i. The Partner States have common development objectives, which is to ensure food security, poverty reduction and improvement of standards of living;
- ii. Wide range of potential resources and comparative advantages within the Partner States; and
- iii. The global perspectives: Partner States are members of various international organizations and signatories to several conventions related to agriculture and rural development.

The overall objective of the policy is to promote cooperation in Agriculture and Rural Development as set out in the Treaty; achievement of food security and rational agricultural production. This would pave the way for implementation of other measures aimed at improving the welfare of the people in the region. The Partner States have, therefore, undertaken to adopt a scheme for the rationalization, improvement and commercialization of agricultural production and rural development with a view to promoting complementarities and sustainability of rural life.

Regarding the livestock sector the overall objective of the policy is to produce adequate quality livestock and livestock products to match the requirement of the rapidly increasing human population in the region and create surplus for the export market. This will be achieved through the following:

- i. Developing a common regulatory institutional framework to monitor livestock production, trade in livestock and livestock products and inputs, and animal diseases control;
- ii. Promoting research in technologies that will enhance animal production, including drugs and vaccine production;
- iii. Encouraging the development of specialized products including live animal species and wildlife for specific markets;
- iv. Developing alternatives to mobilize resources to support the declining Partner States' livestock production and veterinary services and promote establishment of a regional livestock development fund;
- v. Supporting capacity building in the region with a focus on the private sector participation in livestock multiplication and distribution, service delivery, products processing and marketing; and
- vi. Promoting water development for livestock and rangeland development

2.4. Constraints to the livestock Sector

The constraints hindering the development of the livestock sector include those related to production, marketing, institutional arrangements, livestock research, delivery of animal health and extension services, unavailability of capital for investment, poverty, poor infrastructure, and lack of reliable livestock data. However, the most limiting constraint is the prevalence of livestock diseases, particularly the transboundary animal diseases. Of these, Foot and Mouth Disease (FMD), Contagious Bovine Pleuro-Pneumonia (CBPP) and Rinderpest are the most important in the region. Their prevalence impact negatively on livestock production and trade in livestock and livestock products, within the region as well as exports.

2.5. Current disease status in the region

Foot and Mouth Disease (FMD) occurs throughout the region. Four serotypes of the virus occur in Kenya (A, O, SAT1 and SAT2), six in Uganda (A, O, C, SAT1, SAT2, and SAT3) and four in Tanzania (A, O, SAT1 and SAT 2). Contagious Bovine Pleuropneumonia (CBPP) is also wide spread in the three countries. In Kenya, the policy is zonation for

CBPP whereby the infected area is surrounded by buffer zone, surveillance zone, and clean area. The infected zone is to the East and North East of the country (bordering Somalia and Ethiopia), to the west and North West bordering Uganda and Sudan, and to the South bordering Tanzania. The current efforts to control the two diseases in Partner States include; livestock movement control, surveillance, reporting, diagnosis, enforcement of quarantines, compulsory vaccinations and regional and international collaborations. Vaccination is by public and private sector, the public sector being the major player. Governments subsidize vaccines. In Tanzania, the control of Epidemic disease is reinforced by the Presidential Circular No. 1 (2002) which, among other things, bans trekking of animals and encourages trucking.

2.6. General Constraints affecting Transboundary Livestock Diseases Control

As noted earlier, the majority of livestock in the EAC region are in the hands of pastoralists whose mode of management is by movement of stock in search of pasture and water. In the process of these movements, animal diseases are spread. Illegal livestock movement for marketing and cattle rustling together with forced movement of livestock due to civil strife within the region and in neighboring countries also contribute to disease spread. Thus, uncoordinated livestock movements pose the greatest challenge to disease control in the region.

Another factor is that most of the wildlife-protected areas are in confluence with livestock grazing areas. Domestic and wild animals share many diseases including FMD and Rinderpest. This interface constrains the control of such diseases.

Although policy reforms have emphasized the move towards privatization of delivery of services, the private sector is still in its infancy stage and is not yet ready to take up this role effectively.

Decentralization of delivery of veterinary services has had a negative impact in the implementation of disease control programmes, as coordination is problematic.

Other constraints affecting the control of transboundary diseases in the region include the following:

- i. Droughts leading to widespread movement of livestock in search of pasture and water, thereby spreading diseases;

- ii. Inadequate facilitation of livestock marketing and limited formal trade (poor access roads, communication, marketing and quarantine infrastructure, low producer prices);
- iii. Socio-cultural factors in livestock movement;
- iv. Inadequate legislation and poor enforcement of the laws;
- v. Unharmonized and uncoordinated disease control policies and strategies; while CBPP vaccination is free in Kenya and Tanzania, it is on a cost sharing basis in Uganda. On the other hand, FMD vaccination is free in Uganda but on cost sharing in Kenya, and full cost in Tanzania;
- vi. Inadequate community participation in livestock disease control;
- vii. Unwillingness of the communities to support cost sharing for services;
- viii. Unwillingness by livestock owners to present their livestock for vaccination due to the side effects of the vaccines;
- ix. Inadequate funding leading to irregular vaccinations and poor coverage;
- x. Inadequate disease diagnosis, surveillance and reporting; and
- xi. Inadequate inter-institutional, regional and international collaboration in disease control.

Given the constraints affecting the livestock sector in general and the disease control in particular, and taking into account the resource constraints, particularly, low budgetary allocation in all the three Partner States, it is apparent that individual Partner States are unable to adequately undertake measures to control and/or eradicate transboundary animal diseases. This calls for adequate funding from the Partner States in addition to a regional approach in order to optimize resource utilization, coordination and harmonization of disease control programmes.

2.7. Status of Disease Control Facilities & Capacities

The disease control facilities, personnel and capacities in the region are grossly inadequate. In order to improve the situation, we need to construct and improve on the current status

Methods that have been used for controlling CBPP and FMD in East Africa included vaccination of cattle in the infected and high-risk areas. In the region, vaccinations have not met the OIE recommendations due to inadequate vaccine availability and poor disease control facilities.

2.8. FMD and CBPP diagnostic laboratory

Each of the EAC Partner States has laboratory facilities at different levels of development. Kenya has one national laboratory, six regional laboratories, six mobile CBPP testing laboratories and rudimentary laboratories in some of the 71 districts in the country. Tanzania has one national laboratory, seven 7 zonal investigation centers and a few very rudimentary district laboratories while Uganda has one national laboratory whose existence is threatened by expansion of the Entebbe International Airport and 56 district laboratories out of which four are adequately facilitated. Uganda requires assistance to construct a laboratory. In all member states the facilities available are inadequate and should be strengthened in order to undertake rapid accurate and reliable diagnosis and surveillance.

Diagnosis of CBPP and related mycoplasma disease through culturing and identification of etiological agents has been established at national laboratories in East Africa. Serological tests useful in confirmation of the disease both in dead and live animals have also been established. Among them is the Complement Fixation Test (CFT) and Slide Agglutination Serum Test/Slide Agglutination Blood Test (SAST/SABT) and competitive Enzyme-Linked Immunosorbent Assay (c-ELISA). The most reliable serological tests for CBPP are CFT and c-ELISA. The highly specific immunoblotting test should be introduced as a confirmatory test.

Tests and techniques in use for Foot and Mouth Disease (FMD) diagnosis include FMD virus detection ELISA for serotyping, FMD virus antibody detection ELISA, FMD virus detection by the virus neutralization test (VNT) and FMD subtyping by VNT.

2.9 Research

The role of National Laboratories and the Universities in the fight against FMD and CBPP is to perform research activities relevant to diagnosis, control and eventual eradication of the diseases in the region. Among the activities are research on the FMD and CBPP vaccine development and CBPP chemotherapy.

The research capacity for FMD and CBPP are also variously developed. In Kenya research on these diseases is undertaken at the University of Nairobi, Kenya Agricultural Research Institute (KARI), International Livestock Research Institute (ILRI) and at the National Veterinary Laboratory, in Tanzania research is undertaken at the Sokoine University

of Agriculture, Animal Diseases Research Institute (ADRI) and at the Veterinary Investigation Centres (VIC). In Uganda research is undertaken at Makerere University, the Livestock Research Institute (LIRI) and National Research Laboratory.

2.10. Wildlife surveillance and research

Research on the role of wildlife in the maintenance and transmission of FMD and CBPP to livestock is inadequate; therefore, more research is needed in this area.

2.11. Vaccine production

FMD and CBPP vaccines production is undertaken in Kenya at the Kenya Veterinary Vaccines Production Institute (KEVEVAPI). The Institute has the capacity to produce fourteen million doses of CBPP vaccines and fifty six million doses of FMD vaccines that will be required by the project annually. However, the Institute is bogged by inadequate funding and entrepreneurial skills to effect timely production of vaccines.

2.12. Marketing Infrastructure

Market Infrastructure in the region is inadequate and poorly established. The infrastructure that existed is overrun, dilapidated and unable to satisfy the requirements of the export market.

2.13. Disease control facilities

Disease control facilities including transport, cold chain, vaccination equipment and material, vaccines and camping equipment are available but grossly inadequate with insufficient facilitation to cover the target livestock population.

2.14. Export and local slaughterhouses

Export slaughterhouses, export meat processing plants and local slaughter houses are poorly developed in the region thereby denying the countries access to export market.

2.15. Marketing perspective in the region

Markets or market places for livestock and livestock products in the three countries do not measure to required standards. They lack all characteristics of well planned, organized and functional market systems. They mainly depict makeshift type arrangement where animals are exchanged based on estimation and art of negotiation. In other words, animal markets in the region are not based on quality, hygiene, time, knowledge and reliability.

Standard facilities normally necessary for trade transaction are either very old, rudimentary or non-existent. These include weighing equipment, sorting structures, loading and offloading ramps, administration buildings and communication systems. A rigorous upgrading and modernization of these market places is key if East Africa was to increase trade volume of live animals internally and outside the region.

Another aspect of marketing channels, which is wanting, is how animals are transported from collection points to marketplaces and later to abattoirs. Although laws, rules and regulations exist on the type and standards of transport systems required, these are not adhered to due to non-enforcement of the same or ignorance on the part of transporters. Most of these legal instruments are outdated and need to be reviewed to bring them in harmony with existing situation.

Exports of live animals outside East Africa is insignificant. Although diseases may be one of the reasons for non-export performance of the sector, inefficiency and disorganized market systems is a major hindrance. With exception of some exports by Farmer's Choice Ltd of Kenya, East Africa does not export livestock products proportional to existing potential. Farmers Choice exports mainly meat and meat products to the other two Partner States, Middle East and Europe. There is a very limited production of meat and meat products in Tanzania and Uganda which supplies only some local demand.

Trade in other livestock products including processed skin, hides, horns and milk is minimal. Production levels in existing tanneries in East Africa is below capacity due to over-flooding of imported leather products in regional markets which are cheaper compared to local products. Therefore, most businessmen in this business area prefer sending raw and semi-processed livestock products outside East Africa particularly to Europe. This trade deviation denies EAC economies, the badly needed income and employment opportunities.

Trade in milk and milk products is equally minimal and efforts are needed to promote it. Currently the region produces milk and milk products through small and medium size enterprises most of which operate below capacity.

The challenge for the Community is to modernize market structures and promote involvement of private sector in the production and marketing of livestock and livestock products, particularly to internal and regional markets. Detailed information on marketing structures in the region is contained in Annex I.

3.0 GOAL, OBJECTIVES AND OUTPUTS OF THE PROJECT

3.1. Rationale

East Africa Community owns a third of the livestock population in sub-Saharan Africa. Livestock is an integral part of East African economy and is important to East Africans' immediate and long-term economic and social development goals for the following reasons.

Firstly, about 50% of East Africans are classified as poor (World Bank, 2000). Well over 80% of the poor live in rural areas and depend on agriculture for their livelihood. Therefore, widespread improvements in farm incomes are a pre-condition to reduction of rural poverty. Secondly, livestock sector contributes an average of 15% to the GDP, employs 50% of the agriculture labor force and is the main source of livelihood for pastoralists and agro-pastoralists who hold about 80% of the cattle population in the Region. Livestock development, therefore, is a key to the region's overall socioeconomic development.

However, as stated in 2.5, the high incidence of Transboundary Animal Diseases (TADs) such as CBPP and FMD in the region have continued to impact negatively on livestock production and productivity. These diseases are also a major impediment to national, regional and international trade in livestock and livestock products. This has had a negative impact on the overall contribution of livestock sector to the regional economy.

In order to optimize the utilization of the livestock resources potential in the improvement of the economies of the Partner States, it is important to note that individual countries cannot successfully control TADs on their own, as diseases do not respect territorial boundaries. This, therefore, calls for a regional approach for the prevention, control and eradication of transboundary animal diseases.

The control of TADs will enable the East African region to meet sanitary requirements of the OIE and WTO and, therefore, enable smooth trade in livestock and livestock products within the region and create access to competitive international markets. This will result in improved incomes, food security and livelihood of the people, thus increasing the contribution of the livestock sector to the socioeconomic development of East Africa.

This project has, therefore, been formulated to address TADs in general with special focus on FMD and CBPP. It is one of the initiatives to

operationalize the East African Policy and strategy on Agriculture and Rural Development.

3.2. Goal

The goal of the project is.....*“to increase the contribution of Livestock sector to socio-economic development, peoples incomes, food security and poverty reduction in the East African Community”*.

3.3 Objectives

The overall objective of the project is to control and eradicate Trans-boundary Animal Diseases in the East African Community so as to increase livestock production and productivity and promote regional and international trade. The main focus will be on the control and eradication of FMD and CBPP.

The specific objectives are:

- i. To harmonize and implement policies, strategies, laws and regulations relating to the control of trans-boundary animal diseases;
- viii. To promote the participation of all the stakeholders, including the Local Government Authorities and the farming communities, in the control of TADs;
- ix. To improve reporting, diagnosis, surveillance and monitoring of animal diseases in general and TADs in particular;
- x. To increase livestock production, processing and marketing;
- xi. To increase the cattle immunity and resistance to diseases;
- xii. To establish a sustainable TADs institutional control capacity and mechanism in the EAC Region; and
- xiii. To establish an information system for TADs.
- xiv. Minimize cross border transmission of diseases within partner states

3.4. Outputs

To achieve the project objectives, the following will be the outputs.

- i. Management of movement of Livestock and Livestock products strengthened.
- ii. Diagnostic, Research and Vaccine Production Capacities Established/Strengthened.

- iii. Livestock identification and traceability mechanisms established and functional.
- iv. Regional diseases reporting, surveillance and monitoring system in place
- v. Vaccination programs coordinated and harmonized.
- vi. Regional emergency preparedness systems in place.
- vii. Policies, laws and regulations related to the control of transboundary animal diseases reviewed and harmonized.
- viii. Marketing of livestock and livestock products improved.
- ix. Livestock Export zones established
- x. Regional and National Institutional framework for the implementation of the control of TADs in place and functional.
- xi. Information system for the control of TADs established.

During implementation of activities to achieve the desired project outputs, the following major cross-cutting issues will be addressed: Capacity building, Infrastructure development, Gender, Environment and Sustainability.

3.4.1. Output 1: Management of movement of Livestock and Livestock products strengthened

Effective management and control of the movement of livestock and livestock products is one of the most effective ways of preventing spread of diseases within the countries and beyond. The project will support this endeavor by implementing the following activities:

(i) Implementing official guidelines for the control of livestock movements in the region as per EAC Sanitary and phytosanitary (SPS) measures and procedures.

The East African Community has produced guidelines named: “EAC Sanitary and Phytosanitary (SPS) Measures and Procedures”. They are aimed at guiding the stakeholders in the Partner States to ensure that the agricultural products, including livestock products, meet the minimum standards in terms of quality, and are free from diseases and other forms of contamination. The project will support the operationalisation of the guidelines by supporting the following activities:

- a. Gazetting the guidelines by each Partner State;
- b. Communicating the Guidelines to WTO SPS committee, OIE and other bodies involved in international trade;
- c. Disseminating guidelines to all stakeholders in the region using posters, billboards, pamphlets, brochures, media, website, etc;

- d. Sensitizing and creating awareness among stakeholders on SPS measures, especially those pertaining to control of movement of livestock and livestock products such as Health certificate, use of movement permits within the countries, as well as for import and export. 30,000 brochures, pamphlets, posters will be produced and distributed to the Partner States for mass education to all stakeholders to assist in sensitization for animal movement control.
- e. Two meetings per year with international organizations, mainly, WTO, SPS Committee and OIE will be necessary for elucidating the position of East African Partner States in as far as disease control is concerned.

(ii) Reviewing and harmonising legislation and regulations governing animal movement

As noted earlier, one of the constraints is the outdated legislation and regulations governing movement of livestock and products. The project will undertake the following:

- a. Supporting Partner States to review and harmonise legislation and regulations to make them conform to the EAC SPS Measures and Procedures.
- b. Gazetting the revised legislation and regulations in Partner States
- c. Disseminating the laws and regulations to stakeholders through prints, mass media, brochures, posters, meetings, workshops and seminars.

(iii) Carrying out a survey and mapping of the current Livestock movement pattern

In order to facilitate planning of effective measures to monitor and control movement of animals and animal products, it will be necessary to carry out a survey to understand the trend of movement of animals within the region and also to and from neighboring countries during the different seasons of the year. The mapping will indicate the routes followed by trade animals, those moving in search of pasture and water, and others related to civil strife. This will be conducted by teams constituted by member states. Where necessary, local consultants will be contracted to support the local teams especially with regard to producing a regional map and report.

(iv) Creating awareness amongst stakeholders on the hazards of uncontrolled livestock movement.

It is important that all stakeholders in the livestock sector are made aware of the importance and benefits of controlling animal movement. This will enable them to own and participate in the implementation of the programme. The target groups will include, but not limited to, the livestock owners, political leaders, policy makers, law enforcement officers, local government leaders, traders, researchers, extension workers and the civil society. Communication specialists will be contracted to work with the local personnel to develop relevant materials to be used in mass media, meetings, plays, workshops and other forms of communication.

(v) Enforcing regulations for the movement of Livestock and their products for trade (export/import)

The enforcement of regulations with particular reference to trade in livestock and livestock products will be key to, not only control of disease spread, but also assurance of quality and wholesomeness of the products to the satisfaction of domestic and export markets. This will be in support to implementation of the EAC SPS measures and procedures, and in co-operation with all stakeholders. Two quarantine stations per ecosystem will be constructed, one on either side of the country and extra ones will be constructed in areas where there are more than four countries confluent or where there is large area of operation. For instance, Masai ecosystem and Ruanda/Burundi/Democratic Republic of Congo/Tanzania and Uganda. Hence, the project will undertake the following:

- a. Construct/ rehabilitate and equip quarantine stations, holding grounds and check points at strategic sites (to be identified by Partner States) along the trade routes and gazetted border posts;
- b. Train local staff on inspection and management of quarantine stations and check points; and
- c. Provide logistical support to enforcement activities at the quarantine stations, check points and border posts.

Enforcement of regulations will require cooperation and participation of various stakeholders in the public and private sector.

3.4.2. Output 2: Diagnostic, Research, Vaccine Production and Quality Control Capacities Established/Strengthened

For effective disease control, it is important that the disease being addressed is accurately and timely identified. Some transboundary animal diseases have got several strains and sub-strains that do not cross-protect the livestock from one another following infection and/or vaccination. This, therefore, requires that adequate diagnostic facilities

be established and strengthened in the region. International trade requires that the exporting country can certify the absence of trade sensitive epidemic diseases such as FMD and CBPP. This can only be achieved by establishing accredited laboratories.

To strengthen the diagnostic capacity within the region, the following activities will be undertaken:

- i. Assess the needs, facilities and capacities in the Partner States. Liaise with the existing institutions on their capacities and their possible roles;
- ii. Develop guidelines and standards for infrastructure (ground/structural plans) at the various levels (border posts, border districts, provincial, national and regional);
- iii. Develop standards as per OIE guidelines for laboratories and relevant capacities (personnel and logistics) for each level laboratory;
- iv. Establish/strengthen regional referral laboratories for CBPP and FMD (production and standardization of reagents and vaccines) as per OIE guidelines and standards;
- v. Training needs assessments;
- vi. Build capacity for National laboratories (personnel, reagents and equipment). This will include training of personnel at various levels, including development of training guidelines and materials, and procurement of equipment and reagents;
- vii. Build capacity for the district/zonal laboratories with particular priority to disease control zones and international borders. This will include establishment of infrastructure and also private labs. (buildings, equipment and reagents) and personnel training (veterinarians, scientists and laboratory technicians);
- viii. Provide logistical support to disease investigation programmes
- ix. Sensitize and create awareness amongst the stakeholders, especially the livestock producers, on the importance of accurate and timely disease diagnosis and regional approach to optimize utilization of the facilities.
- x. Carry out immediate and regular reporting of laboratory findings to all stakeholders (governments, livestock producers) to ensure timely action and feedback;
- xi. Collaborate with other national and international service providers.

Research is one of the key prerequisites to disease control as it generates and updates the information, knowledge and technologies that are required. Disease causing agents elicit specific reactions in their hosts, they also elicit varying degrees of responses in hosts, which vary with breed, age and even sex of the animals. They also undergo antigenic variations eluding the vaccine or drugs manufactured against them. In

addition, the inter-phase between the wildlife and livestock complicates the epidemiology of diseases that are shared between the two categories. This complexity in diseases requires that continuous research be done on the disease causing organisms and the varying responses of the animals to keep the pace of disease control. Hence, research will be limited to FMD and CBPP.

To strengthen the research capacity within the region, the following activities will be undertaken:

- i. Carry out research needs assessment (vaccines, drugs, organism, epidemiology of the disease).
- ii. Assess needs of research facilities and capacities in the Partner States, including liaison with the existing institutions on their capacities and their possible roles in research.
- iii. Establish/strengthen the physical infrastructure for research.
- iv. Develop human resource capacity at various levels.
- v. Provide logistical support to research.
- vi. Sensitize and create awareness amongst the stakeholders especially the livestock producers on the importance of research so as to get support during the research.
- vii. Promote participation of stakeholders in various aspects of research (problem identification, prioritization and implementation).
- viii. Ensure that livestock interests are incorporated in the regional and national agricultural research policies, strategies and programs.
- ix. Enhance and promote collaboration with other research institutions nationally, regionally and internationally.
- x. Carry out research in the roles of wildlife in the epidemiology of epidemic diseases;
- xi. Dissemination of research results and feedback to livestock keepers and other stakeholders;
- xii. Support research in wildlife by East African wildlife research institutions on the role of wildlife in FMD/CBPP;
- xiii. Conduct Socio-economic studies on impact on the control of CBPP /FMD;
- xiv. Develop and strengthen vaccine production and quality control of Partner States

The Project will strengthen the capacity of national research institutions in the Partner States to undertake research on FMD and CBPP. Regarding vaccine production, the Project will strengthen the capacity of Kenya Veterinary Vaccines Production Institute (KEVEVAPI) to undertake supply of FMD and CBPP vaccines for the region on cost effective and

sustainable production. The target should be to produce an oil adjuvanted FMD vaccine and improve on bio-security.

3.4.3. Output 3: Livestock identification and traceability mechanisms established and operational

One of the difficulties often encountered in disease control is the lack of identification of animals. This makes it difficult to trace the source of infection during outbreaks. Similarly, as pastoralists move long distances in search of water and pastures, the animals from different herds mix. This makes differentiation difficult, such as during vaccination campaigns. Regarding marketing, the international community has introduced traceability of products, which, among other things, demands identification of the animals up to farm level.

The project will support Partner States to carry out animal identification programmes using appropriate methods such as branding and ear tagging. The identification of trade, slaughter, vaccinated and other specific identification shall be the responsibility of individual partner states to develop. The following activities will be undertaken:

- i. Developing identification and traceability system in collaboration with stakeholders;
- ii. Gazetting by the Partner States;
- iii. Production of the Brands or tags by a reputable company;
- iv. Sensitizing and educating livestock keepers on the system;
- v. Mass application, within a defined time frame.

3.4.4. Output 4: Regional diseases reporting, surveillance and monitoring in place

Timely surveillance and reporting is a prerequisite for effective control and eradication of diseases. Development of a surveillance system should, therefore, involve communities since they are with the animals all the time. They are actually the front line informers on the diseases outbreaks. Organizing and training them in reporting and surveillance are of outmost importance.

Considering that there is a close interaction between wildlife and livestock, there is need for the wildlife authorities in the partner states to work together with veterinary authorities in surveillance and control of TADs.

The following activities will be implemented:

- i. Strengthen a Regional system for FMD and CBPP surveillance system;
- ii. Equip epidemiology units at the national and regional levels;
- iii. Promote and organize formation of local committees

- iv. Constitute mobile screening teams to carry out active and passive surveillance in both domestic and wildlife;
- v. Train various cadres of staff: community field staff, data analysts and veterinarians in disease diagnosis, reporting, surveillance and data analysis;
- vi. Organise meetings for wildlife officials and between wildlife officials and veterinary authorities
- vii. Carry out clear demarcation of wildlife protected areas with particular reference to livestock-wildlife interface.
- viii. Carry out surveillance in wild animals;
- ix. Organise regular meetings of the surveillance teams, including community representatives to provide feed back to all stakeholders;
- x. Monitor performance and evaluation of the surveillance system.

The surveillance system will be put in place through holding of community mobilization and sensitization and training workshop leading to the following surveillance teams:

- i. Local community disease control committees;
- ii. Mobile screening teams; and
- iii. Wildlife surveillance team.

3.4.5. Output 5: Vaccination programs coordinated and harmonized

Vaccination is an important measure for controlling livestock diseases as it increases the immunity levels of livestock against the diseases. However, to be effective, it is important that at least 80 % of the target livestock population is covered. In East Africa, transboundary livestock movement is common. Livestock are moved across the borders for grazing, watering, marketing, cattle rustling, civil strife and socio-cultural reasons. This interferes with efforts of individual Partner States to carry out effective vaccination programs against FMD and CBPP. As stated earlier, vaccination policies, strategies and programs in the region are not harmonized. For instance while CBPP vaccination is free in Kenya, it is on a cost sharing basis in Uganda and Tanzania. Also the unwillingness of communities to support cost sharing for services is hampering disease control efforts. These factors as well as inconsistent and irregular vaccinations, uncoordinated vaccinations within Partner States and regionally, and unacceptability of vaccinations due to vaccine reactions, lead to low vaccination coverage.

Hence, to be able to carry out effective vaccinations and enhance their contribution to control/eradication of transboundary animal diseases, harmonized systematic regional vaccination programs in disease control blocks/zones have to be adopted. In addition to this, the vaccine will

have to be free of charge during the initial stages of the program in order to encourage communities to present their livestock for vaccination and, by so doing, reduce the prevalence of the diseases. Cost sharing will be introduced later in the program, but the communities will have to be sensitized from the beginning of the project.

The project will support vaccination programmes in 3 priority ecosystems in the first phase. This will comprise 50% of the total cattle population in the region. Vaccination will be done twice a year for FMD for a period of 3 years, and once a year for CBPP for a period of 3 years.

The project will undertake the following activities in order to improve disease control in the region.

(i) Mapping disease control blocks/zones. This will be based on ecosystems and make use of natural barriers.

East Africa will be divided into six blocks/zones for purpose of disease control. These are:

- a. Turkana-Karamojong Ecosystem
- b. Masai Ecosystem
- c. Somali Ecosystem
- d. West Nile - Kagera Ecosystem
- e. Agro-pastoral Luo-Kuria-Sukuma Ecosystem
- f. Southern Tanzania Border Ecosystem

Partner States will define their own disease control blocks as appropriate. However the project will give priority to ecosystems that cut across Partner States, with consideration to the cattle population and disease prevalence. Consequently, the Turkana-Karamojong Ecosystem, Masai Ecosystem, West Nile - Kagera Ecosystem and the Agro-pastoral Luo-Kuria-Sukuma Ecosystem will be prioritised. The partner states will take care of the remaining ecosystems.

A study will be carried out in order to define the blocks and identify and demarcate the zones.

(ii) Establish livestock population in each block

- a. Carry out livestock census nationally (and in the blocks) within the first year of the Project.

(iii) Establish vaccination coordination and liaison units at EAC Secretariat, zonally and nationally.

- a. Establish coordination at EAC Secretariat;

- b. Identify location and set up of zonal coordination offices in each Partner State;
- c. Identify zonal coordinators in each Partner States; and
- d. Identify national coordinators in each Partner States.

(iv) Constitute zonal vaccination teams

These will include the public and private veterinarians, animal health technicians and Community Based Animal Health Workers (CBAHWs).

(v) Assess the available facilities for vaccination programmes, in collaboration with the Directors of Veterinary Services

These include personnel, vehicles, cold chain, syringes and needles, livestock handling and identification facilities.

(vi) Procure equipment: these include vehicles, motorcycles, cold chain, syringes and needles, vaccines, camping facilities; construct/repair crushes, and assorted drugs. The drugs will be used to treat the cattle against side effects to the vaccines.

(vii) Dialogue with communities, local government authorities (LGAs) and Provincial Administration (PA)

- a. Sensitize communities, LGAs and PA on the importance of vaccination through meetings and mass media, including the production of communication materials;
- b. Establishment of community disease control committees; and
- c. Promote and train vaccination teams on carrying out proper vaccination.

(viii) Plan and implement vaccination program

- a. Assemble: vaccines, cold chain; equipment for vaccination and sterilization; and camping gear and mosquito nets; and livestock handling facilities; protective clothing;
- b. Publicize the vaccination campaign;
- c. Mobilise livestock owners to present their livestock for vaccination using the community livestock disease control committees;
- d. Provide logistical support for vaccination programmes (fuel, allowances); and
- e. Identification of vaccinated animals.

(ix) Create a buffer zone at the wildlife/ domestic animal interface areas

Wildlife domestic animal interaction, requires that ring vaccination against FMD be carried out a round the game reserves. The project will

put emphasis on the creation of buffer zones and undertaking surveillance within the national parks and game reserves

(x) Monitor and evaluate the success of vaccinations

- a. Carry out pre-and Post Vaccination sero-monitoring; and
- b. Carry out participatory evaluation of the success of the vaccination.

3.4.6. Output 6: Regional emergency preparedness system in place.

Emergency preparedness system is necessary for early detection and rapid responses to diseases outbreaks. It involves putting in place early warning system, with involvement of all other stakeholders e.g. the local community, police, political leaders, veterinarians, national and regional authorities, international organizations such as OIE and FAO.

The following activities will be carried out:

- a. Develop an early warning system in all Partner States, including mechanisms of communication and an institutional framework;
- b. Equip surveillance teams and laboratories for quick and accurate diagnosis;
- c. Facilitate personnel both in the field and laboratories to undertake emergencies;
- d. Establish linkages with National, Regional and International systems such as LEWIS and EMPRESS;
- e. Have in place an emergency plan and budget for vaccines and other emergency needs; and
- f. Carry out periodic review and evaluation.

3.4.7. Output 7: Policies, Strategies, Legislation and Regulations related to the control of Transboundary Animal Diseases reviewed, revised and harmonized

Policies, laws and regulations pertaining to the livestock sector including the control of transboundary animal diseases are undergoing review in each of the EAC Partner States to make them conform to the changing needs of the sector. In order to accommodate the aspirations of the people in the EAC region and to improve the livestock sector, there is a need for common policies, laws and regulations related to the control of transboundary diseases. The EAC Secretariat will harmonize policies and strategies; laws and regulations on veterinary services. Thereafter, sensitization of stakeholders on the common policies, laws and regulations (general public, LGAs, law enforcement agencies, livestock traders, extension officers, officers at checkpoints and international border posts, etc), so as to enhance their participation in implementation.

3.4.8. Output 8: Marketing of livestock and livestock products improved.

Marketing livestock and livestock products is the ultimate target in transboundary animal diseases control that will lead to increased income. It has been dominated by traditional and informal marketing practices. Prevalence of transboundary animal diseases such FMD and CBPP has hindered international trade. The livestock and livestock products are produced mainly traditionally and do not meet the stringent requirements laid down in the WTO and OIE guidelines for international trade. In the Partner States, the infrastructure right from farm level, during transportation as well as in the disease control zones, holding grounds and abattoirs, is poor and cannot support access to international trade.

Livestock marketing and trade is primarily a private sector good. However, the Partner States should create an enabling environment for the private sector to take up its role more efficiently. Both local and foreign investors should be encouraged to participate in livestock marketing trade.

Key problems in marketing include diseases, lack of market information and infrastructure, standards, and quality of the products. The project is, therefore, designed to address the issue of transboundary diseases and infrastructure requirements, which have been the cause of failure to access the international markets. It is therefore, geared to improving the production of quality livestock and livestock products to meet the customer demand in the region and that of the international market through eradication of FMD and CBPP, and putting in place the necessary infrastructure and personnel.

In order to improve the marketing of livestock and livestock products, the following activities will be undertaken:

- i. Assess the existing marketing systems, including infrastructure;
- ii. Identify the requirements for an ideal marketing system and develop strategies [infrastructure, personnel, guidelines];
- iii. Carry out market research in the region and internationally and disseminate information to stakeholders;
- iv. Develop standards for infrastructure that will support marketing for trade [abattoirs, deep freezers, trucks, trade routes, quarantines, night kraals];
- v. Develop standards and grades for livestock and livestock products;
- vi. Build capacity of personnel;

- vii. Support the establishment of disease free zones for the local and export markets;
- viii. Operationalise the EAC SPS measures and procedures;
- ix. Support formation of farmers/traders associations to enhance their access to credit and other services;
- x. Harmonize border livestock markets (systems and procedures);
- xi. Establish risk analysis systems to avoid importation/exportation of diseases;
- xii. Sensitize and create awareness of all stakeholders, particularly the livestock producers and traders on the SPS, WTO and OIE requirements for trade [training workshops, mass media]; and
- xiii. Establish collaboration with WTO, OIE and other relevant organizations.

3.4.9. Output 9: Livestock Export Zones established

Livestock export zone refers to an area set aside by the veterinary authorities and the stakeholders and made free of specific diseases such as FMD and CBPP in order to facilitate access to local and export markets for livestock and livestock products. The size of such area may vary; it can be a district, a province or a whole country. It is surrounded by a disease surveillance zone and then a disease control zone. In these areas, community and veterinary authorities would put in place mechanisms to ensure the area remains disease free. Essential elements include measures to ensure that animals are identified and regularly monitored. Prior to export, the animals are placed in a holding ground and/or quarantine area for a certain period of time depending on targeted diseases.

The project will support the establishment of Livestock export zones in Partner States. It will also support initiatives, such as the Red Sea Commission under the auspices of AU/IBAR, to facilitate negotiations between Partner States and potential importers,. The main players will be the private sector, with the public sector providing technical guidance. It is anticipated that six export zones and six holding grounds, two per each Partner State will be established by the end of the Project to facilitate trade both locally and internationally.

The following activities will be undertaken:

- i. Identify potential export zones in Partner States;
- ii. Carry out inventory of the necessary facilities e.g. dips, holding grounds, quarantine infrastructure, export abattoirs;
- iii. Organise and register community / producer associations;

- iv. Carry out identification of animals;
- v. Support intensive surveillance in the zones and vaccination programmes in the surveillance and disease control zones;
- vi. Put in place movement control mechanisms into the export zone to ensure protection of the zone; and
- vii. Survey market for livestock and livestock products within the region and in importing countries.

3.4.10. Output 10: Regional and National Institutional framework for the implementation of the control of TADs in place and functional

For effective implementation of the programme for the control of transboundary diseases within the region, it is necessary to put in place an institutional framework that will coordinate the activities. It must be in conformity with the structures of the Community as well as those in the Partner States. At the EAC Secretariat, the programme will be coordinated under Agriculture and Food Security Committee.

A Regional Project Coordinating Office will be established at the EAC Secretariat. A Regional Steering Committee will be established to guide project implementation. In each Partner State, a national coordinating office will be established within the Directorate/Department of the Veterinary Services and under direct supervision of the Director of Veterinary Services. The national Project Coordinator will ensure proper planning, implementation and supervision of all the project activities in the Partner States, supported by a national steering committee. He/she will also coordinate with the EAC Secretariat as well as other Partner States in implementing related activities such as the joint vaccination programmes, surveillance and control of movement of animals and animal products.

For field activities, zonal coordinators will be appointed to supervise a number of specified districts in the ecosystem within the Partner States. These will report to the national coordinators and will implement activities by working with the regional, provincial and/or district veterinary officers. Collaboration between zonal supervisors within the same ecosystems that cut across borders of Partner States will be promoted to enhance synchronization of related activities and sharing of information.

The Regional Project Coordinator will be a full time EAC employee on contract. However, a National and Zonal Coordinators will be seconded to the Project by the governments of the Partner States.

The details of the log frame indicating activities per output are presented in the attached Annex II.

3.4.11. Output 11: Regional Information System for TADS Established:

The project will establish an information system at the EAC Secretariat as a support service to other outputs. The activities will include: preparing a mechanism for data collection, analysis, collation and dissemination; establishment of a data base; putting in place communication mechanisms to enhance flow of information during implementation of the project.

The estimated cost will be USD50000 (€ 41,667). Details regarding budgets for the output will be elaborated at the commencement of the project.

4.0. BUDGET

The cost estimates for the whole project are shown in Annex III attached. The total cost for the project will be USD 132,828,820 equivalent to € 110,690,684.

5.0. EXPECTED BENEFITS

Substantial benefits to the region will accrue from a successful campaign of control and eradication of transboundary animal diseases. The project will enable the EAC Countries to access international markets for livestock and livestock products. They will also increase income at local level directly contributing to poverty reduction and improved living standards.

In this regard, the private sector will be encouraged to put up the following:

- i. 5 export abattoirs and meat processing plants; and
- ii. 5 tanneries to produce high quality leather and leather products.

At individual level, the farmer will be encouraged to invest more in livestock production leading to increased production.

Income from Meat Export

It is estimated that the five export abattoirs and meat processing plants will be slaughtering an average of 800 cattle daily. The outcome, in terms of amount of meat produced and its value in US \$ is demonstrated as follows:

- i. Head of cattle slaughtered daily = $800 \times 5 = 4000$
- ii. 25 working days per month = 25×4000
- iii. No. of animal slaughtered annually = $4000 \times 25 \times 12 = 1,200,000$. heads of cattle
- iv. No. of kilos produced = $5/8 \times 1.2\text{mil.} \times 300$ kg per head = $225,000,000$ kg.
- v. Cost of meat at US\$3.5 per kg. X 225 mil. Kg i.e equivalent of **US\$78,750,000.**

Local Market

It is estimated that 1,086,375 metric tons of meat per year will be produced for the local market with a value of **US\$1,629,375,000.**

Income from Hides and Skins (Leather)

1,200,000 pieces of leather each costing \$20 are expected to be produced.

Total income will be $1,200,000 \times 20 =$ **US\$24,000,000.**

Therefore total income from meat and leather = **US\$102,750,000.**

Hides 5,906,125 pieces worth **US\$9,449,804.**

Sheep and goats skin 11,184,196 pieces worth **US\$1,641,807,256.**

Total value USD 2,280,632,060.

Total benefits

Export of meat and leather = **US\$102,750,800.**

Local market for hides and skins and meat = 2,280,632,060 (including exports from already existing slaughter abattoirs and meat processing plant.

Total Annual income = **US\$2,383,382,060.**

Income for 5 years = **USD 11,916,9113,000.**

Other Benefits

Other benefits expected from the project include the following:

- i. Improved marketing for livestock and income for the farmers;
- vii. Employment creation by improving business in areas where slaughterhouses will be built;
- viii. Allied factories such as pharmaceutical and soap factories will come up which will be using the by-product of the abattoirs;
- ix. Investors will be encouraged to put up feed manufacturing plants for high quality chicken and fish feeds;
- x. There will be improved standard of living of the people through increased income and nutrition; and
- xi. The community will be self-efficient and food secured.

6.0. REGIONAL FACILITIES AND PERSONNEL INVENTORY

The relevant facilities and personnel engaged in the livestock industry in general and disease control in particular were assessed and an inventory prepared. This is shown in Annex IV.

7.0. ON GOING ANIMAL HEALTH PROJECTS IN THE REGION

An inventory of all on-going and planned projects/programmes in the three partner states was undertaken and it is hereto appended as Annex V.

8.0. REGIONAL AND NATIONAL INSTITUTIONAL FRAMEWORK FOR IMPLEMENTATION OF THE PROJECT

For effective implementation of the project for the control of transboundary animal diseases within the region, an institutional framework will be put in place. The propose structure is hereto attached as Annex VI

ANNEXES

Annex I:

MARKET PERSPECTIVES

Introduction

Trade in live animals and livestock products in the region is incoherent and at most very backward and disorganised. The survey carried out in the three Partner States has revealed that there is need to create a conducive climate to boost trade in this sub-sector in order to achieve food security in the region and also contribute to poverty reduction through generation of income to the people and national coffers. A survey undertaken in February 2004 in the three countries shows that markets are small, underdeveloped, unhygienic and quasi temporary. Government officials, business people and processing units answered to the survey.

Tanzania

Tanzania does not have organised and modern livestock markets neither does it know exactly the impact of imports vis a vis livestock productivity at local level.

Facilities available for possible markets are rudimentary and unhygienic with the biggest of all being in Pugu near Dar es Salaam.

The survey at Pugu Holding ground showed that the 1,900 acres of land of which only a fraction is actually used as a market gets cattle through two supply routes; whereby 55% is by rail mainly central line and 45% by road from upcountry sources.

The following is a brief description of how the Pugu Holding ground works:

Pugu Holding Ground is among the country under rehabilitation programme using African Development funds and contribution from the Government of Tanzania under the Ministry of Water and Livestock Development, through Tanzania Livestock Marketing Project. It is a quarantine station designated to hold trade stock. This station is now being rehabilitated by the Tanzania Livestock Marketing Project by improving various livestock marketing infrastructures.

The holding ground is situated at Ilala Municipal some 22 kms from Dar es Salaam city centre with an area of 860 hectares of land.

Activities in the Holding Ground

There are two secondary livestock markets in the Holding Ground namely: cattle, sheep and goats markets. The two markets satisfy the demand of beef, mutton and goat meat of Dar-es-Salaam city, Zanzibar, Mtwara and Lindi.

Pugu Cattle Secondary Market:

The market attracts cattle from the main livestock producing regions of Shinyanga, Dodoma, Tabora, Singida, Mbeya and to a lesser degree Morogoro, Mwanza, Tanga, Iringa and Rukwa. About 60% of cattle are delivered by rail and the remaining 40% by trucks from the hinterland. Daily cattle yarding stands at an average of 400 herds of cattle, the market operates daily and it has several security/holding pens that can hold up to 2000 heads of cattle at a time.

Small Ruminant Secondary Market

This market has been designed and constructed to meet export requirements and standards. It has the capacity of holding about 3000 sheep and goats at a time. Average arrivals/sales per month stand at 10000. Goats represent 80% of the total monthly arrival. The market operates daily and receives shoats from Shinyanga, Tabora, Singida, Morogoro, Dodoma, Mbeya, Tanga and Iringa Regions. Trucking is the major means of delivery of shoats from producing areas to Pugu.

Day to Day Livestock Market Activities in the Two Secondary Markets Comprises of:

- i. Receipt of railed and trucked livestock from upcountry.
- ii. Inspection of the health status of the animals.
- iii. Ownership/legality verification of arriving livestock.
- iv. Grading of livestock in order to render livestock marketing information services.
- v. Issue of traders livestock permits after inspection of the animals.
- vi. Record keeping.

Infrastructures Rehabilitated by the Project at the Holding Ground

Due to its importance in terms of livestock yarded/sold, Pugu holding ground/market has been earmarked for extensive rehabilitation. Since the rehabilitation programme started in July 1996, the project has spent a total of T.shs.120 millions out of which T.shs.70 million is African

Development fund and T.shs.50 million being a contribution from the Government of Tanzania. The funds has been used to rehabilitate/construct the following infrastructure/facilities:

- i. Construction of one grader B house for holding ground Manager.
- ii. Renovation of office block.
- iii. Construction of cement blocks fence of 100m length and a 300 meters galvanized pipe race.
- iv. Renovation of cattle holding pens.
- v. Construction of two shallow wells and one deep well.
- vi. Electrification of the station.
- vii. Construction of two loading/offloading ramps.
- viii. Construction of four pit-latrines.
- ix. Construction of one drivers quarters.
- x. Construction of one S.T.P.U Police post.
- xi. Final touches in completion of the sheep and goats terminal market.
- xii. Access road improvement.
- xiii. Pasture improvement through bush clearing of more than 50 ha.
- xiv. Environmental conservation – through planting of more than 300 trees.

Issues of concern at the Holding Ground and the Way Forward

- Encroachment: The holding ground areas are encroached by human activities such as cultivation and settlements. The matter is being worked out.

The Way Forward

- i. To expand the market to meet international standards. This will be done through improving the market infrastructures, pasture and other related market requirements.
- ii. Educate traders on livestock trading business.
- iii. Encourage private sector participation in running the market activities.
- iv. To exclude all encroachers from the holding ground area.
- v. Strengthen livestock marketing information system.

Lake Zone

In Lake Zone, market situation is not much better compared to the one at the coast. In fact the existing infrastructure as shown in the attached

overview are mostly in deplorable situation. No abattoir of any acceptable standard around the Lake Zone is actually operational. Mwanza city leased its abattoir to private operator but it is in bad shape. Other facilities, which are key to trade like dips, are not operational. The main reason given by vet. officers is that medicines are unavailable. Even if medicine were available it is highly probable that pastoralists would not use dips because they do not send their animals there and also due to lack of sensitisation.

The direction of movement of cattle from the Lake Zone is mainly to the east and north-east suggesting that that trade is mostly done in the Dar es Salaam area and into Kenya. The main check point between Mwanza and Mara region which is at Lamadi receives animals from all over the Lake Zone. Movement of cattle through Lamadi check point in 2003 was as follows: April and May – highest figures was 5383 and July, August and September – lowest figure was 719.

Kenya

Marketing channels in Kenya do not vary much from the other two Partner States although facilities and marketing techniques in terms of private sector involvement are slightly better. However, market structures still resemble the ones found in Tanzania and Uganda.

Efforts are being done mainly by private organisations and private registered people to undertake a wide range of services which were previously done by government agencies. Like in the other Partner States, licensing and training of extension workers is still being carried out by the government.

Diseases control measures are aimed at improving or raising productivity and promote internal and export trade. Livestock sector contributes 4% of GDP and employ about 100,000 people countrywide. There are also 2000 dealers distributed over the country, 1167 bandas, 20 godowns for export and 10 tanneries which produce semi-processed leather products for local and export markets. Slaughter houses for internal and external markets do exist although their standards require improvement.

Regulations for meat processing are lacking making inspection and control of diseases in meat products non-effective. It is, therefore, necessary that existing international sanitary standards should be followed and enforced. Farmer's Choice which is a reasonable big meat and meat products processing plant operate at required international standards and therefore dominate the local market and export to Uganda, Tanzania, Ethiopia, Muscat, Bahrain and the United Arab Emirates.

There are three essential criteria in ensuring that Farmer's Choice products are kept to the international standards. These are, time, temperature and hygiene. There are two on-site generators generating a total of 1000 KVS, as well as a constant water supply from two boreholes within the compound. The water is chlorinated to appropriate safety levels and checked for cleanliness three times a day.

The health of the pigs is another crucial factor that needs constant monitoring, not just to ensure good quality meat, but also for humanitarian reasons.

Government Veterinary Inspectors regularly check the off-site big units, as well as those of producers who are sub-contracted to supply pigs for slaughter. As soon as the animals arrive at the slaughter house from the pig units, they are put into a lairage that has been built in accordance to Kenya Government Veterinary specifications. Here an inspector checks them for any sign of disease. Prior to slaughter, the pigs are screened for any sign of distress that might adversely affect the quality of the meat.

Live animals for slaughterhouses are mainly supplied from big ranches situated in the Rift Valley although individual farmers also supply the markets available in various districts before they are transported to abattoirs. Transport of live animals is done mainly by trucks which are in most cases in deplorable conditions. Enforcement of existing transport standards is weak.

If East Africa is to promote and increase trade in livestock and livestock products, there is urgent need to construct several Farmers Choices across the region.

Uganda

Market Infrastructure

Markets for live animals and livestock products in Uganda are below the required standards in all aspects that make a market vibrant and attractive. The infrastructure at the markets is of temporary nature reflecting insensitivity of the authorities as regards to the role of quality markets in promotion of trade in livestock and livestock products. Due to infrastructure not well designed, diseases and quality control cannot be undertaken properly.

Supplies to markets are made through different means including walking animals there or being transported in undesirable trucks without following the existing regulations and standards. The organisation to

ensure proper movement of cattle to markets is done haphazardly with high probability of spreading disease. During the survey in February 2004, it was found out that FMD has spread everywhere in different districts in Central Uganda. These areas have been quarantined. However, no sufficient vaccines are available and therefore control or containment of the disease is unpredictable. Moreover, control system movement of cattle from infected to free zones (districts) and eventually to markets is weak. In some instances issuance of movement permits has been inconsistent with the existing rules and regulations inviting unauthorised parties to administer movement of cattle. This kind of situation distorts the market structure, encourages corruption and hardly could control diseases.

Furthermore, it was found out that the biggest hurdle to export trade in live animals and livestock products is unavailability of quality animals that meet international standards. By extension, therefore, slaughterhouses which themselves are not much developed can only process animals of low quality which means the products will correspondingly be of low quality.

In addition, to the lack of vaccines, other problems which are being faced by livestock sector in Uganda include the right Pasteur and inadequate water supply. Lack of enough water forces animal tracking to take place over long distances contributing greatly to spread of diseases. In Uganda's case, FMD is the major problem and should be seriously considered a priority in disease control campaigns.

Organisation and Performance of the Livestock Sector

The livestock Industry constitutes an important- sub-sector of Uganda's economy, accounting for 9% of the National Gross Domestic Products (GDP) and 117 of the Agricultural Gross Domestic Product (AGDP). It is estimated that the country has 6.3 million cattle, 6.8 million goats, 1.1 million sheep, 1.7 million pigs, 36.2 million poultry and 55000 rabbits. Following independence, government implemented a well funded and coordinated livestock development programme that led to a progressive and profitable animal industry. By 1978, Uganda had 562 commercial ranches and over 3000 commercial dairy farms. Unfortunately, by 1986, the industry had been run down, with the infrastructure and service delivery system destroyed due to civil strife.

Potential and Opportunities in the Livestock Industry

Studies and analyses over the past decade have identified the livestock sub-sector as having a high potential for growth in the agricultural sector due to, among others, the following:

- i) The national per capita consumption of meat and milk is far below the recommended levels by WHO and FAO. As the people's income improves, the effective demand for animal products will increase.
- ii) Export of animal products to other countries in the region is likely to increase due to Uganda's comparative advantage for animal production and strategic location in terms of transport linkages.
- iii) Recent surveys indicate a high potential for export of live animals (particularly goats) and meat to the Middle East countries, provided they satisfy the specifications required.
- iv) The largely untapped resource base with only 40% of arable land currently being utilised.
- v) The availability of ground and surface water sources to support production.
- vi) The good will and support by government.

The challenge, therefore, is to develop and implement appropriate strategies that will increase production, processing and marketing of livestock and livestock products and increase the contribution of the livestock sub sector to the export earnings of the country.

Constraints to Marketing of Livestock and Livestock Products

Prevalence of animal diseases:

A number of diseases remain endemic in Uganda; notable among them are:

- i. Foot and mouth disease, contagious bovine pleuropneumonia, tick-borne diseases, helminthosis and trypanosomiasis for cattle;
- ii. Contagious caprine pleuropneumonia, orf and helminthosis for small ruminants;
- iii. Newcastle disease, gumbo, coccidiosis and salmonellosis for poultry;
- iv. African swine fever and helminthosis for pigs;
- v. Zoonotic diseases like tuberculosis, brucellosis and anthrax.
- vi. New and emerging diseases.

The prevalence of epidemic diseases affects not only production but also the country's access to export markets.

Low levels of production

The low levels of production of livestock products results in low availability of these products which cannot sustain domestic and export market demands. This is attributed to the following:

- i) Breeds and breeding: Low genetic potential of indigenous breeds and poor breeding methods have resulted in low production and productivity of the national herd.
- ii) Feeding and water: Inadequate feed resources, especially the seasonal variation in quality and quantity and the low legume content of pastures, especially in the cattle corridor, has resulted in low production, even of exotic breeds with high genetic potential. Water for livestock is a constraint in the semi arid regions of south western and north eastern parts of the country. These areas hold over 40% of the national herd of cattle and goats and often experience seasons of drought when water reservoirs dry-up.
- iii) Inadequate livestock advisory services: The low funding has affected the capacity of MAAIF and Local Governments to carry out their role of providing technical guidance, training, support supervision and monitoring of livestock activities among stakeholders. While the number of technical personnel has increased ten fold over a twenty –year period, there has been no corresponding increase in resources and facilities to enable their performance.

Inadequate Veterinary Services

Regulations governing marketing and livestock products, especially in the export market require the country to demonstrate commitment to a veterinary quality management system. Uganda's declared interest to participate in International trade, therefore, exposes her to persistent international scrutiny. There will be persistent audit of Uganda's veterinary services and animal production capabilities to monitor compliance with international standards as a quality assurance and quality control measure.

According to the International Organisation of Epizooties (OIE), the country's veterinary services is expected to demonstrate capacity to undertake the following:

- i) Veterinary inspection and enforcement of regulations and standards during production, processing and marketing; Weak enforcement of policies, laws, regulations and standards has led to spread of diseases and production of sub-standard products, and

- as limited access to the highly competitive international markets for beef, milk and hides and skins.
- ii) Establishment of competent laboratory services for product quality assurance, disease diagnosis, epidemio-surveillance and monitoring;
 - iii) Establish an effective disease control service.
 - iv) Veterinary research: The livestock industry has received little attention in terms of research to develop technologies that would address the constraints in the industry. This is mainly attributed to low levels of funding and prioritisation compared to other sub-sectors.
 - v) Deployment of adequate veterinary human resource.

Lack of reliable livestock data

For the last five years, a comprehensive livestock census has not been carried out. The data used is based on estimates and projections. Similarly, field studies/surveys to generate data on production parameters for the different types of animals and breeds are few. This affects the planning of the intervention programmes.

Strategies for Enhance Export of Livestock and Livestock Products

Carrying out effective disease control

MAAIF in collaboration with local governments and other stakeholders will ensure the prevention, control and eradication of notifiable diseases in the country. This will be achieved through enforcement of veterinary regulations, creating capacity in disease diagnosis, surveillance and monitoring, vaccination programmes and creation of specific disease free zones to target a production for export. Priority will be given to the control and/or surveillance of the following:

Foot and mouth disease	Rinderpest
Contagious Bovine Pleuropneumonia	African Swine
Fever	
Bovine Spongiform Encephalopathy (Mad Cow Disease)	Rift Valley Fever
Brucellosis	Goat and Sheep Pox
New Castle Disease (Poultry)	Avian
Salmonellosis (poultry)	
Contagious Caprine Pleuropneumonia (Goats)	Blue Tongue
Pestis De Petitis Ruminantia	

Formulating and operationalising appropriate policies, standards and regulations

Appropriate policies, standards and regulations will be formulated and operationalised and the existing ones reviewed to create an enabling environment in the production, processing and marketing of livestock and livestock products. Examples include the Meat Policy, Animal Feeds policy and Standards, Hides, Skins and Leather policy and the Rangelands use Policy. Legislations to be reviewed include Animal Diseases Act (1964) Cattle Traders Act (1964) and Hides and Skins Act (1964). Particular emphasis will be put on the enforcement of livestock movement regulations.

Promotion genetic improvement

Productivity of livestock will be enhanced by promoting genetic improvement. The interventions will include characterisation of indigenous germplasm so as to identify elite performers for multiplication and conservation, cross breeding of indigenous breeds with improved breed to optimise hybrid vigour, promoting use of modern breeding techniques such as artificial insemination and embryo transfer to maximise off springs from elite animals and building the capacity of local hatcheries to increase supply of day old chicks locally. For been emphasis will be on multiplication and cross breeding with BORAN using bulls and artificial insemination. For goats emphasis will be on cross breeding with boer.

Improving Animal Nutrition

Emphasis will be put on ensuring the availability of quantity and quality of postures on both natural grazing lands as well as fenced farms and ranches. Pasture seed production programmes, in which farmers will be availed improved seeds for multiplication, will be promoted. Other interventions will include capacity building in fodder conservation and supplementary feeding based on utilisation of crop residues, agro-industrial by-products and compounded feeds for especially high producing animals. In addition, the provision of water for livestock production will be undertaken with particular emphasis to those areas prone to seasonal variations in water availability (Rangelands).

Improving training and delivery of advisory services

Training institutions will be encouraged to review their curricula so as to put more emphasis on practical training as well as the emerging livestock enterprises such as pig production, poultry and small ruminants. Farmer training will be enhanced by utilising agricultural research and development centres and district farm institutes. Farmers will be urged to form groups through which advisory services will be delivered. NAADS will take lead by contracting private service providers. Collaboration

among stakeholders in training and advisory services delivery will be promoted.

Improving Livestock Research

A research needs assessment to identify and prioritise areas for action will be carried out. Collaborative linkages to exchange information, regionally and internationally will be established. These links will be used to lobby for increased funding of livestock research and the dissemination of the results to the farming communities.

Improving the Livestock and Livestock Products Marketing System

The private sector and local governments will be supported to establish livestock marketing infrastructure. Priority interventions will include:

- i. Rehabilitation/construction of quarantine stations and holding grounds in strategic locations;*
- ii. Construction of Export abattoirs to meet international standards.*
- iii. Rehabilitation of primary and secondary livestock markets.*

Standards for products and infrastructure will be developed and disseminated to stakeholders to guide the development of the infrastructure. In addition relevant laws like the meat rules and meat inspection codes will be reviewed and operationalised to ensure quality production of livestock products. Training of service providers and dealers will be carried to create capacity to manage and maintain the marketing infrastructure. A livestock marketing information collecting and dissemination system, including market surveys, will be put in place to inform stakeholders on the industry.

BUDGETARY ESTIMATES FOR PRIORITY AREAS

Strategy	Activity	Unit cost - Ug shs.	No. of Units	Amount - 000s Ug.shs
1. Effective disease control	1.1 Procure 2 million doses of FMD vaccine	2,400	2 mil	4,800,000
	1.2 Support to vaccination programs	1.2 billion		480,000
	1.3 Construct National Diagnostic laboratory	70 million	1	11,200,000
	1.4 Enforcement of regulations	2.5 mil	8	560,000
2. Promoting genetic improvement	2.1 Import Borans (200 female and 200 male)	5,000.	400	1,000,000
	2.2 Promote artificial insemination	20 billion	50,000 doses	250,000
3. Establish marketing infrastructure, information, gathering and dissemination system	3.1 Construct export abattoir	80 mil	1	20,000,000
	3.2 Construct quarantine stations	50 mil	4	2,000,000
	3.3 Construct holding grounds	50 mil	4	320,000
	3.4 Rehabilitate livestock markets	500 mil	20	1,000,000
	3.5 Conduct market surveys	400 mil	2 survey	100,000
	3.6 Establish export zones (fencing, patrolling, surveillance and monitoring).	500 mil	2 zones	1,000,000
4. Water for livestock production	4.1 Construct water reservoirs	400 mill	25	10,000,000
TOTAL				42,710,000

PRODUCTIONS ON PRODUCTION AND EXPORT EARNINGS FOR LIVESTOCK ENTERPRISES

Enterprise		2003/04	2004/05	2005/06	2006/07	2007/08
Beef	Total production (MT)	106,000	110,000	120,000	135,000	150,000
	Available for export (MT)	-	5,000	10,000	20,000	30,000
	¹ Export earnings (US\$ 000)	-	10,000	20,000	40,000	60,000
Goat	Total production (MT)	17,000	20,000	20,000	22,000	26,000
	Available for export (MT)	-	20,000	4,000	6,000	8,000
	² Export earnings (US\$ 000)	-	4,000	8,000	12,000	16,000
Hides	Total production (million kgs)	13	8,000	16	20	30
	Available for export (million kgs)	12	16	15	18	20
	³ Export earnings (US\$ 000)	48,000	15	60,000	60,000	80,000
Skins	Total production (million kgs)	1.2	60,000	1.5	1.6	1.8
	Available for export (million kgs)	1.1	1.5	1.3	1.4	1.5
	⁴ Export earnings (US\$ 000)	4,4000	1.3	5,200	5,600	6,000

¹ Price per kg of beef US\$2.00

² Price per kg of goat meat US\$2.00

³ Price per kg of hide US\$4.00

⁴ Price per kg of skin US\$4.00

**SUMMARY OF EXPORT EARNINGS FROM LIVESTOCK
(US\$ MILLIONS)**

Enterprise	2003/04	2004/05	2005/06	2006/7	2007/08
Beef	-	10.0	20.0	40.0	60.0
Goat	-	4.0	8.0	12.0	16.0
Milk	2.0	15.0	30.0	60.0	120.0
Hides	48.0	52.0	60.0	72.0	80.0
Skins	4.4	4.8	5.2	5.6	6.0
Total	54.4	85.8	123.2	189.6	282.0

Annex II:

LOGICAL FRAMEWORK FOR THE EAST AFRICAN COMMUNITY PROJECT FOR THE CONTROL OF TRANSBOUNDARY ANIMAL DISEASES

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>GOAL: To increase the contribution of Livestock sector to socioeconomic development, peoples incomes, food security and poverty reduction in the East African community</p> <p>OBJECTIVE: To control and eradicate Trans-boundary animal Diseases in East African community so as to increase livestock production and productivity and promote regional and international trade. The main focus will be on the control and eradication of FMD and CBPP.</p>	<p>1. Increase the contribution of livestock to the regional Gross Domestic Product by 10% by end of fifth year of project implementation. 2. Increase per capita consumption of livestock products by 10%.</p> <p>1. Outbreaks of FMD and CBPP in export zones eliminated by fifth year of the project. 2. Export earnings from livestock increased by 50% by the fifth year of project implementation.</p>	<p>1. Annual statistical country reports 2. Evaluation reports</p> <p>1. Monthly and annual reports 2. Statistics reports</p>	<p>Conducive macroeconomic policies in the region</p> <p>Co-operation from all stakeholders</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 1: Management of Movement of livestock & livestock products strengthened.</p> <p>ACTIVITIES</p> <p>1.1 Production and dissemination of guidelines to all stakeholders</p> <p>1.2 Produce radio programmes</p> <p>1.3 Interaction with WTO, OIE, SPS Committee and other international organizations.</p> <p>1.4 Sensitizing & creating awareness</p> <p>1.5 Reviewing & harmonizing legislation</p> <p>1.6 Carrying out & mapping for livestock movement</p>	<p>All systems for effective management of movement of livestock and livestock products in place and functional by the end of third year of the project implementation.</p> <p>30,000 brochures, 30,000 posters produced and disseminated, information installed on the website.</p> <p>15,000 radio, TV messages and Soap opera produced.</p> <p>2 meetings/workshops and website.</p> <p>10 regional and 6 national workshops held.</p> <p>All legislation pertaining to livestock movement harmonized in the region.</p> <p>6 ecosystems mapped by end of first year</p>	<p>Quarterly and annual reports</p> <p>Monitoring reports</p> <p>Brochures and poster distributed</p> <p>Radio, TV and soap air time</p> <p>Meeting and W /shop reports</p> <p>Workshop reports</p> <p>Reviewed legislation Report.</p> <p>Maps produced</p>	<p>Co-operation from all stakeholders</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
1.7 Awareness creation and mass communication..	30 workshops held in 6 ecosystems. 90% of population aware by mass media.	Workshop Reports	
1.8 Enforcing regulations <ul style="list-style-type: none"> • Identification of quarantine stations/holding grounds & checkpoints. • Construction of quarantine stations/Holding grounds • Training of staff. 	18 quarantine stations/holding grounds and check points constructed by fourth year of the project	Quarantine stations, holding grounds and checkpoints in place.	
1.9 Logistical support at quarantine stations.	36 staff trained in quarantine regulations	Training Reports	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 2: Diagnostic, Research and Vaccine Production Capacities Established/Strengthened</p> <p>Activities: Diagnosis</p> <p>2.1 Conducting needs assessment of the laboratories</p> <p>2.2 Establishing 8 satellite laboratories for sample collection</p> <p>2.3 Establishing 8 mobile laboratories for CBPP screening using CFT in the ecosystems</p> <p>2.4 Equipping district laboratories with reagents and basic equipment for sample collection and submission.</p> <p>2.5 Training of district staff on proper sample collection</p> <p>2.6 Training of 48 mobile and satellite laboratory staff</p> <p>2.7 Purchasing equipment and reagents for 15 strategic District/VICs/VILs within the ecosystems</p> <p>2.8 Training of personnel (2 veterinarians and 4 technicians per strategic district/VIC/VIL laboratories.</p>	<p>50 % of the diagnostic, research and vaccine production capabilities established by the end of the project.</p> <p>Needs known by the first month of the project</p> <p>8 satellites in place by the second year</p> <p>8 CBPP mobile labs in 6 ecosystems by year two</p> <p>Basic equipment and reagents in all the district labs by year two</p> <p>Continuous training for district staff in 100 districts provided on job.</p> <p>Continuous training for 48 staff provided on job.</p> <p>Equipment and reagents in the 15 labs by the second year.</p> <p>Training of 6 vets and 12 technicians by year three</p>	<p>Number of diagnostic, research and vaccine production units established and functioning.</p> <p>Needs assessment Reports</p> <p>8 satellite labs in place</p> <p>8 mobile CBPP labs functioning</p> <p>Store reports and functioning of the labs</p> <p>Training reports</p> <p>Training reports</p> <p>Inventory and functioning of the labs</p> <p>Training reports</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>2.9 Training of personnel at the national level (4 vets and 4 technicians/country)</p> <p>2.10 Purchase of reagents for central laboratories.</p> <p>2.11 Purchase equipment for central laboratories</p> <p>2.12 Develop working guidelines for the laboratories</p> <p>2.13 Purchase one vehicle for each of the national laboratories</p> <p>2.14 Conducting sensitization meeting with livestock keepers on the importance of laboratory diagnosis of diseases</p> <p>2.15 Providing logistical support for disease investigations</p> <p>2.16 Reporting on diseases diagnosed</p> <p>2.17 Collaborating with other laboratories</p>	<p>Training of 12 vets and 12 technicians by year three</p> <p>Reagents in the 3 central labs by year two</p> <p>Equipment in the 3 central labs by year two</p> <p>Guidelines produced by year two.</p> <p>3 vehicles purchased by year one</p> <p>6 sensitization workshops held in each ecosystem annually</p> <p>4 disease investigations done per year/ecosystem</p> <p>1000 samples FMD, 1000 samples CBPP analyzed per year</p> <p>2 National, 1 intra-regional and 1 international collaborative diagnosis by the second year</p>	<p>Training reports</p> <p>Inventory list and ledger</p> <p>Inventory list and ledger</p> <p>100 guidelines booklets for each ecosystem</p> <p>3 vehicles in place</p> <p>Report of the meetings</p> <p>Monthly, quarterly and annual reports</p> <p>Monthly, quarterly and annual reports</p> <p>Joint reports</p>	<p>Security prevails in the ecosystems</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>Research:</p> <p>2.18 Carry out research needs assessment</p> <p>2.19 Assess existing research facilities and capacities in the Partner States</p> <p>2.20 Purchase reagents and equipment for six research institutions</p> <p>2.21 Create awareness among stakeholders especially livestock keepers on the importance of research and promote client oriented research</p> <p>2.22 Carry out research on the role of wildlife in the epidemiology of FMD and CBPP</p> <p>2.23 Collaborative research by East African Community wildlife research institutions</p> <p>2.24 Research on pathogens, vaccines and CBPP chemotherapy.</p>	<p>Needs known by the end of the first year of the project</p> <p>Research facilities and capacities known by the end of the first year of the project</p> <p>Reagents and equipment in the 6 research institutions by year two.</p> <p>6 sensitization workshops held in each ecosystem annually</p> <p>3 wildlife research in the Masai and Kuria-Sukuma ecosystems</p> <p>2 research carried out</p> <p>3 joint researches conducted for CBPP; 3 joint researches for FMD during the project life</p>	<p>Reports on the needs assessment</p> <p>Reports on the facilities and capabilities. Store reports ledger</p> <p>Workshop reports; farmers reports</p> <p>Wildlife research reports</p> <p>2 papers produced</p> <p>Disease, Vaccines, and CBPP chemotherapy research papers</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>2.25 Research on diagnosis and reactors to CBPP vaccines</p> <p>2.26 Social economic studies/research carried out on the impact of the control of FMD/ CBPP</p> <p>2.27 Collaboration amongst research institutions</p> <p>2.28 Strengthening research-extension-farmer linkages (feedback)</p> <p>Develop Vaccine production and quality control: Vaccines production</p> <p>2.29 Strengthening KEVEVAPI</p> <p>Quality Control</p> <p>2.30 Establish vaccine quality control capabilities in the Partner States</p>	<p>Research on diagnosis and reactors carried out</p> <p>Research on social economic / research carried out</p> <p>National, intra-regional and international collaborative research by the second year Six meetings held per ecosystem per year; 3000 pamphlets/brochures/leaflets per country</p> <p>16.128 million doses CBPP vaccine produced annually; 32.256 million doses of FMD vaccines</p> <p>Quality control on 5 % of the vaccines produced annually</p>	<p>Research papers produced</p> <p>2 Research papers produced</p> <p>Joint research reports; reports of meetings Reports of meetings</p> <p>KEVEVAPI monthly, quarterly and annual reports; country reports</p> <p>KEVEVAPI and country annual reports; Field reports</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 3: Livestock identification and traceability mechanisms in place and functional</p> <p>ACTIVITIES</p> <p>3.1. Review & harmonise the identification symbols in Partner States - 3 countries</p> <p>3.2 Approval by gazetting in the East African Community.</p> <p>3.3 Production of Brands/ identification systems.</p> <p>3.4 Consultative meetings with Stakeholders/Livestock keepers</p> <p>3.5 Support to mass application of identification.</p>	<p>90% of all cattle have identification marks by fifth year of project</p> <p>Identification and design symbols.</p> <p>Symbols approved and gazetted in the East African Community by end of Project</p> <p>14,600 brands produced by the 4th year of the project.</p> <p>30 workshops held .</p> <p>50% of cattle branded by end of Project.</p>	<p>Annual Reports Monitoring reports</p> <p>Report</p> <p>Gazetted symbols.</p> <p>Brands in place</p> <p>Workshop reports Cattle branded and reports</p>	<p>Security prevails in the ecosystems</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 4: Regional Disease reporting, surveillance & monitoring in place</p> <p>Activities</p> <p>4.1 Establish a regional surveillance system</p> <p>4.2 Organise formation of disease control local committees.</p> <p>4.3 Train community to recognize & report FMD & CBPP</p> <p>4.4 Train various cadres of staff in the ecosystems</p> <p>4.5 Constitute and train mobile screening team</p> <p>4.6 Equip and support national epidemiology unit</p> <p>4.7 Support to the veterinary section in the wildlife to undertake surveillance.</p>	<p>Elaborate disease reporting and surveillance system established and functional by end of projet.</p> <p>A unified regional surveillance system in place by 1st year</p> <p>60 disease control committee formed by year 1</p> <p>60 communities trained on FMD & CBPP recognition</p> <p>60 technical staff trained.</p> <p>Mobile screening teams constituted and trained by year 2</p> <p>National epidemiology units equipped and functional by 4th year.</p> <p>Wildlife Veterinary section supported by year 2</p>	<p>Annually and Quarterly Reports</p> <p>Data base and regional surveillance system in place.</p> <p>Training reports Committee formed Training reports Monitoring Reports.</p> <p>Mobile screening team Training reports and in place. Epidemiology units reports</p> <p>Wildlife surveillance</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>4.8 Design & disseminate reporting format.</p> <p>4.9 Collect, analyse and disseminate information.</p> <p>4.10 Collaboration with other agencies locally & internationally.</p> <p>4.11 Organise meetings for stakeholders.</p> <p>4.12 Carry out evaluation of surveillance systems</p> <p>4.13 Mapping of FMD strains and CBPP in the region</p> <p>4.14 Collaboration & reporting to other international bodies connected to animal Health (FAO, OIC</p>	<p>Reporting format produced by year 1</p> <p>Information produced by year 1 15 meetings conducted by 5th year</p> <p>15 meetings conducted by year 5</p> <p>120 meetings by the 5th year</p> <p>Annual evaluation of the project</p> <p>Maps produced by year 2</p> <p>100 Collaboration meeting held by end of year 5</p>	<p>Reports Monthly quarterly and annual reports. Reports</p> <p>Meeting reports</p> <p>Meeting reports Evaluation report Maps available</p> <p>Reports</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 5 Vaccination Programmes coordinated and harmonized.</p> <p>Activities</p> <p>5.1 Identify disease control blocks.</p> <p>5.2 Production of ecosystem maps & dissemination to stakeholders.</p> <p>5.3 Livestock census in blocks.</p> <p>5.4 Procurement of FMD vaccines.</p> <p>5.5 Procurement of CBPP vaccines.</p> <p>5.6 Procurement of vaccination equipment:</p> <ul style="list-style-type: none"> • Syringe • Needles • Refrigerators • Cool box • Ice packs 	<p>50% of cattle vaccinated against FMD and 40% of vaccinated against CBPP.</p> <p>4 disease control ecosystems identified by year 1 of the Project.</p> <p>Maps produced and disseminated by year 2 of the Project.</p> <p>Livestock census completed by 1st year of the Project.</p> <p>96.768 million doses of FMD vaccine procured by end of Project.</p> <p>48.384 million doses of CBPP vaccine procured by end of Project.</p> <p>600 syringes (50 cc), 600 syringes (10 cc), 1200 dozens needles, 120 gas fridges, 6 deep freezers, 240 cold boxes procured by end of project.</p>	<p>Quarterly and annual reports</p> <p>Reports</p> <p>300 copies of the ecosystem maps produced and disseminated.</p> <p>Census reports</p> <p>Procurement and vaccination reports.</p> <p>Procurement and vaccination reports</p> <p>Procurement and inventory reports.</p> <p>Monitoring reports</p>	<p>Peace and security in all livestock keeping regions.</p> <p>Cooperation from neighboring regions</p> <p>Partner States will take care of the ecosystems not attended to by the documents and their borders with other states</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
5.7 Procurement of camping equipment.	240 tents and accessories procured by end of Project.	Purchase order and inventory list	
5.8 Procurement of vehicles & motorcycles	24 vehicles and 72 motor cycles procured by end of Project	Purchase order and inventory list.	
5.9 Construction/repair crushes by communities	Crushes repaired and constructed by year 2	District reports.	
5.10 Carry out vaccination campaign <ul style="list-style-type: none"> • Team composition • Subsistence allowance • Fuel • Vehicle service & maintenance • Identification of vaccinated animals 	Vaccination teams and campaign begin by year 2	District Ecosystem and regional Vaccination campaign reports	Districts cooperate and form vaccination teams
5.11 Vaccination publicity	Awareness creation by year 2	Awareness reports.	
5.12 Training of vaccination teams	18 training sessions conducted	Training reports	
5.13 Monitoring and evaluation of vaccination <ul style="list-style-type: none"> • Prevaccination sero monitoring • Post-vaccination sero monitoring • Participatory evaluation of the success of the vaccination. 	Monitoring and evaluation of vaccination on annual basis	Pre and post annual evaluation reports.	
5.14 Carry out Community mobilization.	60 mobilisation meetings held	Reports	
5.15 Supervise, monitor and carry out Evaluation	15 supervision and monitoring visits conducted.	Supervision and monitoring reports.	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 6 Regional emergency preparedness in place.</p> <p>Activity</p> <p>6.1 Develop a framework for early warning & reporting system</p> <p>6.2 Training of staff in emergency preparedness.</p> <p>6.3 Provide communication between field officers & epidemiology units</p> <p>6.4 Equipment of laboratories for diagnosis and surveillance.</p> <p>6.5 Emergency funds for rapid follow up on reported outbreak (purchase of vaccine and logistics).</p> <p>6.6 Support to vaccine producing laboratories to ensure preparedness.</p> <p>6.7 Carry out risk analysis for importation & export periodic reviews and evaluation</p>	<p>Mechanism to respond to disease emergencies established in the 3 Partner States by 4 of Project.</p> <p>Guidelines for early warning developed for EAC by the end for the 1st year</p> <p>60 staff trained in emergency preparedness by end of project.</p> <p>Field officers enabled to communicate with national coordinators by the 1st year</p> <p>Laboratories serving ecosystems equipped and functional by 2nd year</p> <p>Emergency funds available on annual basis</p> <p>Funds for vaccine production available to KEVEVAPI by the beginning every financial year</p> <p>15 risk analysis to be carried out by the end of the 5th year</p>	<p>Annual and Quarterly Reports</p> <p>Reports</p> <p>Training reports</p> <p>Communication in place.</p> <p>Lab reports</p> <p>Disbursement of funds and reports on the response to outbreaks.</p> <p>Timely production of vaccines.</p> <p>Risk analysis reports</p>	<p>Co-operation from all stakeholders</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 7 Policies, laws and regulation related to control of TADS reviewed and harmonized.</p> <p>Activities</p> <p>7.1 Review laws and legislation by Partner States.</p> <p>7.2 Constitute a technical team to harmonize the laws & regulations.</p> <p>7.3 Stakeholders consultation.</p> <p>7.4 Approval by the Director of Veterinary.</p> <p>7.5 Meeting with Directors of Member States to endorse the policy laws and regulation.</p>	<p>Policies, laws and regulations harmonized in the region by end of Project.</p> <p>Legislation by Partner States reviewed by year 2.</p> <p>Technical team formed by year 1</p> <p>10 Workshops/meetings seminars held by year 2.</p> <p>Directors meeting by year 2</p> <p>DVS of member States to endorse the policy laws and regulation by year 2.</p>	<p>Legislation documents</p> <p>Team reports</p> <p>Reports by</p> <p>Approved legislation proposals.</p> <p>DVS Reports</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 8 Marketing of Livestock and Livestock Products improved</p> <p>Activities</p> <p>8.1 Carry out an assessment of the livestock marketing system in the region and develop requirements.</p> <p>8.2 Carry out market survey within the region and export.</p> <p>8.3 Develop and harmonize standards for marketing infrastructure (trucks, abattoirs, quarantine stations, etc.)</p> <p>8.4 Production and dissemination of standards by Partner States.</p> <p>8.5 Training of staff on meat standards and processing.</p> <p>8.6 Sensitization of local and external investors.</p> <p>8.7 Marketing information in place</p>	<p>The volume of trade in livestock and livestock products increased by 50% by end of Project.</p> <p>Commission a study</p> <p>3 member states experts and one consultant. 3 Teams (to West Africa, North Africa, Middle East) Support to collaboration with other trade initiatives (COMESA, Red Sea Commission, etc)</p> <p>Standards for marketing infrastructure produced and disseminated to stakeholders by year 3.</p> <p>Standard guidelines produced and disseminated by year 2</p> <p>30 officers trained in meat standards and processing by end of Project.</p> <p>Workshop meetings with potential investors</p> <p>Marketing information produced and available on weekly basis</p>	<p>Marketing assessment reports</p> <p>Reports and action plan - ditto -</p> <p>Standards developed and guidelines gazette</p> <p>Dissemination reports</p> <p>Training report</p> <p>Reports and investors in Partner States.</p> <p>Marketing Reports</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 9: Livestock Export Zones established.</p> <p>Activities</p> <p>9.1 Identify possible sites for the export zones.</p> <p>9.2 Sensitization of stakeholders on the concept of export zones.</p> <p>9.3 Carry out an inventory of existing facilities in the zone.</p> <p>9.4 Construct holding grounds/ quarantine stations for export of animals.</p> <p>9.5 Construction of zonal export abattoir/meat processing plant (private sector)</p> <p>9.6 Promote formation of farmers groups/co-operatives for access to facilities of credit (Partner States to undertake).</p>	<p>6 export zones and 6 holding grounds (2 of each per Partner State) established by end of Project.</p> <p>Export zone sites established by year 1.</p> <p>10 Meetings held per zone by the end of project.</p> <p>Team to carry out an inventory by year 1.</p> <p>Construction carried out by year 3</p> <p>Construction of zonal export abattoir/meat processing plant By year 3</p> <p>Sensitisation of private sector to start from the 1st year of the project</p> <p>Sensitisation meeting of farmers groups and cooperatives from year 1</p>	<p>Export zone establishment reports. Reports</p> <p>Inventory report</p> <p>Contractors reports</p> <p>Contractors reports.</p> <p>Reports/and private sector to take up their role</p> <p>Reports on the number of functional groups and cooperatives.</p>	

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 10 Institutional Framework for implementation the control of Transboundary Animal Diseases in East Africa</p> <p>Activities</p> <p>10.1 Establishment of Regional Coordinating Office.</p> <ul style="list-style-type: none"> • Regional Coordinator • Manager technical services • Manager finance & administration • Secretary • Driver • Office attendant • Country coordinators • Ecosystem Managers <p>10.2 Office equipment</p> <p>10.3 Establishment of Regional Steering Committee.</p> <p>10.4 Establishment of a National Coordinating Committee.</p> <p>10.5 Establish National Coordinating Office within the DVS office.</p> <p>10.6 Establishment of Zonal Coordinators</p> <p>10.7 Establishment of Zonal Steering Committee.</p>	<p>Institutional framework in place and functional by 2nd year of the Project.</p> <p>Regional Coordinating office established and functional by end of first year.</p> <p>Regional coordinator recruited by year 1</p> <p>Manager Tech services recruited by year 1</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>Equipment by end of year 1</p> <p>Regional steering committee established by year 1</p> <p>National Coordinating Committee established by year 1</p> <p>“</p> <p>“</p> <p>“</p> <p>xvii</p>	<p>Regional annual and quarterly reports.</p> <p>Recruitment Documents</p> <p>Do</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p> <p>“</p>	<p>Inst Framework and process of establishment agreed and facilitated by the 3 Member States</p> <p>Funds will be available in time.</p>

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Assumptions
<p>OUTPUT 11 Information Management System in place 11.1 Data collection 11.2 Collation of data 11.3 Production of information 11.4 Dissemination of information</p>			

Annex III:

**COST ESTIMATES FORM THE EAST AFRICAN PROJECT FOR THE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES**

Output 1		Management of movement of Livestock and Livestock products Strengthened		
Activity	Unit Cost (USD)	Number	Total cost (USD)	
Disseminating guidelines to all stakeholders				
30,000 brochures	1	30,000	30,000	
30,000 posters	1	30,000	15,000	
Website	1	5,000	5,000	
Sensitising and creating awareness				
Regional workshops	15,000	10	150,000	
National workshops	10,000	6	60,000	
Reviewing and harmonizing legislation	15,000	3	45,000	
Carrying out mapping for livestock movement				
Ecosystems	10,000	6	60,000	
Consultants	300	60	18,000	
Awareness creation				
Production of Radio Messages	3	15,000	45,000	
TV and Soap operas	150	300	45,000	
Communication specialist	300	90	27,000	
Ecosystems workshops	5,000	30	150,000	
Sensitization material				
Posters	1	30,000	15,000	

Output 1		Management of movement of Livestock and Livestock products Strengthened	
Activity	Unit Cost (USD)	Number	Total cost (USD)
Pamphlets	1	6,000	6,000
Mass media	10,000	6	60,000
Enforcing Regulations			
Identification of quarantine stations/holding grounds	10,000	1	10,000
Construction of quarantine stations/holding grounds	200,000	18	3,600,000
Training of Staff (Technical)	1,000	18	18,000
Training of Staff (Support)	1,000	18	18,000
Logistical support at quarantine stations			
Vehicle	30,000	8	240,000
Procure Motorcycles	4,000	18	72,000
Communication equipment	5,000	18	90,000
Stationary	20,000	18	360,000
Subtotal Output 1			5,139,000

Output 2		Diagnostic, Research and Vaccine Production Capacities Established /Strengthened		
Activity	Unit Cost (USD)	units	Total cost (USD)	
Diagnosis				
Conducting needs assessment of the laboratories				
Commission study in partner states	4,000	3	12,000	
Establish satellite laboratories				
Construct labs	5,000	8	40,000	
Procure sample collection equipment	5,000	8	40,000	
Procure reagents for labs	5,000	8	40,000	
Procure motor cycles	4,000	24	96,000	
Establish CBPP mobile labs				
Procure sample collection equipment	6,000	8	48,000	
Procure reagents for labs	5,000	8	40,000	
Procure vehicles	30,000	8	240,000	
Procure CFT kit	100	760	76,000	
Purchase reagents and equipment for district labs				
specimen collection bottles and media	1	10,000	5,000	
transport equipment	5	100	500	
On job training of district staff on proper sample collection.				
Training of mobile and satellite laboratory staff	250	96	24,000	
Procure equipment and reagents strategic District/VICs/VILs				
procure sample collection bottles	1	15,000	7,500	
procure chemicals and reagents	2,000	15	30,000	
procure equipment	5,000	15	75,000	

Output 2	Diagnostic, Research and Vaccine Production Capacities Established /Strengthened		
Activity	Unit Cost (USD)	units	Total cost (USD)
Training of technicians in strategic district/VIC/VIL laboratories.	1,000	12	12,000
Training of vets in strategic district/VIC/VIL laboratories.	1,500	6	9,000
Training of vets at the national labs	2,000	12	24,000
Training of technicians at the national labs	1,500	12	18,000
Purchase of reagents for central laboratories			
FMD			
lab consumables	5,000	3	15,000
lab reagents	5,000	3	15,000
testing kit	10,000	3	30,000
purchase of equipment	50,000	3	150,000
CBPP			
lab consumables	5,000	3	15,000
lab reagents	5,000	3	15,000
testing kit	10,000	3	30,000
purchase of equipment	10,000	3	30,000
Develop working guidelines for the laboratories	5	600	3,000
Procure vehicles for each of the national laboratories	30,000	3	90,000
diagnosis sensitization	2,000	180	360,000
Providing logistical support for disease investigations	10,000	6	60,000
communication/e-mail facilities	2,000	9	18,000
specimens dispatch	200	150	30,000
Research:			
Carry out research needs assessment			

Output 2		Diagnostic, Research and Vaccine Production Capacities Established /Strengthened	
Activity	Unit Cost (USD)	units	Total cost (USD)
commission study in partner states	4,000	3	12,000
Identify existing research facilities/capacities	4,000	6	24,000
Purchase reagents and equipment for research institutions	25,000	6	150,000
Research awareness creation	2,000	180	360,000
Wildlife disease research	25,000	3	75,000
East African wildlife research institution collaboration	10,000	3	30,000
Research on pathogens, vaccines and CBPP chemotherapy.			
FMD research	25,000	3	75,000
CBPP research	25,000	3	75,000
Collaboration amongst research institutions			
hold consultative meetings	5,000	3	15,000
Strengthening research-extension-farmer linkages			
feedback metings with farmers	2,000	36	72,000
pamphlets, brochures, leaflets, radio programmes	4,500	9	40,500
Socio economic studies	20,000	3	60,000
Vaccines production			
Strengthening KEVEVAPI (Estimate: USD 100,000)			
support on equipment	20,000	5	100,000
support on reagents	10,000	5	50,000
Establish vaccine quality control capabilities in the Partner States	20,000	3	60,000
Subtotal Output 2			2,896,500

Output 3		Livestock Identification and Treacibility mechanisims in place and functional	
Activity	Unit Cost (USD)	Number	Total cost (USD)
Reviwing and harmonising identification symbols in partner states	10,000	3	30,000
Approval and gazzeting of symbols	1,000	3	3,000
Production of brands			
Uganda	5	2,600	13,000
Kenya	5	5,200	26,000
Tanzania	5	6,800	34,000
Consultative workshops	5,000	30	150,000
Support to mass application of branding			
Uganda	100,000	1	100,000
Kenya	200,000	1	200,000
Tanzania	300,000	1	300,000
Subtotal Output 3			856,000

Output 4		Regional disease reporting, surveillance and monitoring in place		
Activity	Unit Cost (USD)	Number	Total cost (USD)	
Community mobilization				
Meetings/workshops	2,000	60	120,000	
Training staff in the ecosystems	500	60	30,000	
Traning of CBPP mobile screening teams	1,000	12	12,000	
Training communities to recognize FMD and CBPP	3,000	12	36,000	
Equip the National Epidemiology Units				
Procure Vehicles	30,000	3	90,000	
Equipment and reagents	20,000	3	60,000	
Support surveillance field activities	5,000	60	300,000	
Support wildlife surveillance veterinary section				
Procure Vehicles	30,000	3	90,000	
Equipment and reagents	10,000	3	30,000	
Support to Wildlife Surveillance	5,000	24	120,000	
Data collection, collation, analysis and dissemination				
Design and disseminate reporting formats	10,000	3	30,000	
Procure computers and accessories	4,000	3	12,000	
Procure communication equipment	1,200	3	3,600	
Meetings/workshops with stakeholders	2,000	120	240,000	
Collaboration with other agencies locally and internationally	5,000	15	75,000	
Mapping of FMD strains and CBPP in the region	5,000	8	40,000	
Undertake monitoring and evaluation on surveillance systems	5,000	30	150,000	
International meetings	5000	50	250.000	
Sub-total Output 4			1,438,600	

Output 5	Vaccination programmes, coordinated and harmonized		
Activity	Unit Cost (USD)	Number	Total cost (USD)
Procurement of vehicles	30,000	24	720,000
Production and dissemination of the disease control map to stake holders	20	300	6,000
Carry out livestock census in ecosystem			
Uganda	104,000	1	104,000
Kenya	205,000	1	205,000
Tanzania	291,000	1	291,000
Procurement of FMD vaccine			
Uganda	1	20,476,800	20,476,800
Kenya	1	29,280,000	29,280,000
Tanzania	1	47,040,000	47,040,000
Procurement of CBPP vaccine			
Uganda	0.3	10,283,400	3,071,520
Kenya	0.3	14,640,000	4,392,000
Tanzania	0.3	23,520,000	7,056,000
Procure Vaccination equipment			
Syringes (50 cc)	20	600	12,000
Syringes (10 cc)	15	600	9,000
Spare parts	10	1,200	12,000
Needles (Gauge 14, 1/2 inch)	1	1,200	1,200
Cold Chain			
Refrigerators (gas/paraffin)	1,200	120	144,000
Refrigerators (Zonal)	2,000	6	12,000
Deep freezers	2,500	6	15,000
Cold boxes	20	240	4,800

Output 5	Vaccination programmes, coordinated and harmonized		
Activity	Unit Cost (USD)	Number	Total cost (USD)
Other accessories	30	1,000	30,000
Camping equipment			
Tents	1,000	240	240,000
Beddings	50	720	36,000
Gum boots	10	720	7,200
Other accessories	20	720	14,400
Vaccination campaigns			
Subsistence allowance per day	30	43,200	1,296,000
Fuel (Liters)	1	216,000	216,000
Vehicle service and repairs	24,000	24	576,000
Community mobilization			
Meetings in ecosystems	1,000	60	60,000
Training of vaccination teams			
Training sessions	1,000	18	18,000
Monitoring and supervision of the vaccination campaigns	10,000	6	60,000
Sero-monitoring	20,000	6	120,000
Subtotal Output 5			115,525,920

Output 6		Regional Emergency Preparedness in place		
Activity	Unit Cost (USD)	Number	Total cost (USD)	
Develop guidelines for early warning and emergency preparedness				
Technical team meetings to develop the guidelines, plans, action plan	3,000	60	180,000	
Logistical support to production of guidelines	2,000	3	6,000	
Production and dissemination	10	2,000	20,000	
Training of staff in Emergency Preparedness	10,000	12	120,000	
Sensitization of farmers on disease recognition and reporting				
Conduct workshops/meetings and formation of committees	3,000	120	360,000	
Produce of sensitization materials	1,000	72	72,000	
Emergency fund for rapid reporting and follow up	50,000	15	750,000	
Carry out risk analysis for import and export products	10,000	15	150,000	
Subtotal Output 6			1,658,000	

Output 7		Policies Laws and Regulations related to Control Of TADs Reviewed and Harmonized		
Activity	Unit Cost (USD)	Number	Total cost (USD)	
Technical team to harmonize the laws and regulations				
Experts	200	60	12,000	
Logistical support	200	60	12,000	
Legal advisory service	200	10	2,000	
Meeting of Directors of Veterinary Services to endorse	500	18	9,000	
Subtotal Output 7			35,000	

Output 8	Marketing of Livestock and Livestock products improved		
Activity	Unit Cost (USD)	Number	Total cost (USD)
Assessment of livestock marketing system	10,000	3	30,000
Carry out market survey for export	6,000	12	72,000
Disseminate market information	3,000	60	180,000
Support to collaboration with trade initiatives	10,000	15	150,000
Develop and harmonize standards for marketing infrastructure			
Experts in marketing harmonization	200	30	6,000
Logistical support to experts	200	30	6,000
Dissemination of standards	10,000	3	30,000
Training of staff on meat standards and processing	6,000	30	180,000
Sensitization workshops for local and external investors	6,000	4	24,000
Subtotal Output 8			678,000

Output 9	Livestock Export Zones Established		
Activity	Unit Cost (USD)	Number	Total cost (USD)
Identification of export zones	5,000	6	30,000
Sensitization workshops for stakeholders	5,000	12	60,000
Inventory of the existing facilities	2,000	6	12,000
Demarcation of the export zones	20,000	6	120,000
Construct holding grounds and quarantine stations for export	80,000	6	480,000
Construct zonal export abattoir (Private sector investment)			
Formation of farmers groups to access facilities			
Subtotal Output 9			702,000

Output 10	Institutional Framework for Project Implementation		
Activity	Unit Cost (USD)	Number	Total cost (USD)
Regional Coordinating office			
Regional Coordinator	2,800	60	168,000
Manager Marketing and Information	2,400	60	144,000
Manager Finance and Administration	2,000	60	120,000
Secretary	800	60	48,000
Office attendant	400	60	24,000
Driver	400	60	24,000
Procurement for the Regional Office			
Vehicle procurement	30,000	2	60,000
Desktop Computers and accessories	3,000	4	12,000
Laptop computers	4,000	2	8,000
Air conditioning	400	4	1,600
Telephone services	300	4	1,200
Other accessories	5,000	4	20,000
Operational costs	3,000	60	180,000
Field activities	30,000	5	150,000
Regional Steering Committee			
Meetings	1,500	200	300,000
Establish National Coordinating Office			
Vehicle procurement	30,000	3	90,000
Operational costs	3,000	180	540,000
Computers and accessories	4,000	3	12,000
Stationary	10,000	15	150,000
Field Operations	10,000	15	150,000
National Coordinating Committee meeting	2,000	60	120,000

Output 10	Institutional Framework for Project Implementation		
Activity	Unit Cost (USD)	Number	Total cost (USD)
Supervision, monitoring and evaluation	5,000	15	75,000
Establish Zonal Office			
Office equipment	2,000	6	12,000
Field activities	40,000	30	1,200,000
Establish Zonal Steering Committee			
Zonal committee meeting	1,000	240	240,000
Subtotal Output 10			3,849,800

Output 11	Information Management System in place		
Data collection			20,000
Collation of data			10,000
Production of information			10,000
Dissemination of information			10,000
Subtotal Output 11			50,000

TRANSBOUNDARY ANIMAL DISEASES		
Subtotal Output 1		5,139,000
Subtotal Output 2		2,896,500
Subtotal Output 3		856,000
Sub-total Output 4		1,438,600
Subtotal Output 5		115,525,920
Subtotal Output 6		1,658,000
Subtotal Output 7		35,000
Subtotal Output 8		678,000
Subtotal Output 9		702,000
Subtotal Output 10		3,849,800
Subtotal Output 11		50,000
Grand Total		132,828,820

Annex IV:

EAST AFRICAN COMMUNITY FACILITIES AND PERSONNEL INVENTORY

COUNTRY	DISEASE	LABORATORY	AVAILABLE FACILITIES	REQUIRED FACILITIES	PERSONNEL		REMARKS
					AV	DEF	
					AV	DEF	
KENYA	CBPP	NATIONAL	1	0	12	14	To be strengthened
		REGIONAL/ZONAL	6	0	82	40	„
		DISTRICTS	71	71	71	-	„
		MOBILE TESTING UNITS	6	1	32	46	„
		SATELITE	2	0	6	6	„
TANZANIA		NATIONAL	1	0	6	4	„
		REGIONAL/ZONAL	7	0	4	14	„
		DISTRICTS	121	80	80	41	„
		MOBILE TESTING UNITS	-	7	0	14	„
		SATELITE	-	2	0	8	„
UGANDA		NATIONAL	1	-	3	10	„
		REGIONAL/ZONAL	-	5	0	10	„
		DISTRICTS	56	56	10	46	„
		MOBILE TESTING UNITS	-	3			„
		SATELITE	-	2			„
		EQUIPMENT					„
KENYA		INADEQUATE					„
TANZANIA		INADEQUATE					„
UGANDA		INADEQUATE					„

COUNTRY	DISEASE	LABORATORY	AVAILABLE FACILITIES	REQUIRED FACILITIES	PERSONNEL		REMARKS
					AV	DEF	
	FMD						
KENYA		NATIONAL	1	0	11	7	To be strengthened
TANZANIA		NATIONAL	1	0	2	10	„
UGANDA		NATIONAL	1	0	3	6	„
		EQUIPMENT					„
KENYA		INADEQUATE					„
TANZANIA		INADEQUATE					„
UGANDA		INADEQUATE					„

COUNTRY	DISEASE	RESEARCH	AVAILABLE FACILITIES	REQUIRED FACILITIES	PERSONNEL		REMARKS
					AV	DEF	
	FMD/CBPP						
KENYA		UNIVERSITIES	1	0			To be strengthened
		KARI	1	0			„
		ILRI	1	0			„
		NATIONAL LABS	1	0			„
TANZANIA		UNIVERSITY	1	0			„
		ADRI	1	0			„
		NATIONAL LABS	1	0			„
UGANDA		UNIVERSITY	1	0			„
		LIRI	1	0			„
		NATIONAL LAB	1	0			„

COUNTRY	DISEASE	VACCINE PRODUCTION	AVAILABLE FACILITIES	REQUIRED FACILITIES	PERSONNEL		REMARKS
					AV	DEF	
	FMD/CBPP						
KENYA		KEVEVAPI	1	0	54	13	To be strengthened
TANZANIA		-	0	1	-	-	To be established
UGANDA		-	0	1	-	-	To be established

COUNTRY	MARKETING INFRASTRUCTURE	AVAILABLE FACILITIES	REQUIRED FACILITIES	PERSONNEL		REMARKS
				AV	DEF	
KENYA	Night Camps	-				To be strengthened
	Primary markets	350	350			
	Secondary markets	150				To be established
	Boarder markets	15				
	Check points	30				
	Holding grounds	120				
	Stock routes	34				
	Quarantine stations	8				
	Export Slaughter house	2				
	Processing plants	1				
	Boarder posts	24				
	Water facilities	84				
TANZANIA	Night Camps	90		227		
	Primary markets	56				
	Secondary markets	14				To be established
	Boarder markets	6				
	Check points	381				
	Holding grounds	10				
	Stock routes	40				
	Quarantine stations	19				
	Export Slaughter house	1				
	Processing plants	2				
	Ports of entry/exit	34				
	Water facilities	-				
UGANDA	Night Camps	10				
	Primary markets	-				
	Secondary markets	-				

	Boarder markets	17				
	Check points	10				
	Holding grounds	12				
	Stock routes	44				
	Quarantine stations	5				
	Export Slaughter house	2				
	Processing plants	2				
	Ports of entry/exit	17				
	Water facilities	-				

COUNTRY	DISEASE	DISEASE CONTROL FACILITIES	AVAILABLE	REQUIRED	REMARKS
	FMD/CBPP		AV	DEF	
KENYA		PERSONNEL ❖ Public Vet ❖ Public AHT ❖ Junior AHT ❖ Private Vet ❖ Private AHT ❖ CBAHW	500 2,200 800 800 1,500 2,000	200 1200 0 ? ? ?	To be redeployed, trained and employed. Create an enabling environment Train/ retrain
		TRANSPORT ❖ Vehicles ❖ Motorcycles ❖ fuel ❖ drivers	210 116 - 210	100 400 450,000 L 310	Repair /purchased Redeploy/recruit
		COLD CHAIN ❖ Cool box ❖ Ice packs ❖ Fridges ❖ Deep freezer ❖ Cold room	800 800 600 110 13	800 800 300 110 0	Repair /purchased
		VACCINATION EQUIPMENT ❖ Syringes ❖ Needles ❖ Sterilising equipment ❖ Branding	1700 30 50	1700 30000 300 700	Repair /purchased
		VACCINATION CRUSHES	4000	0	Repair
		VACCINE	-	8,000,000 CBPP 18,000,000	For the 1 st year For the 1 st year

COUNTRY	DISEASE	DISEASE CONTROL FACILITIES	AVAILABLE	REQUIRED	REMARKS
				FMD	
		CAMPING EQUIPMENT	240	100	Repair /purchased
TANZANIA		PERSONNEL <ul style="list-style-type: none"> ❖ Public Vet ❖ Public AHT ❖ Junior AHT ❖ Private Vet ❖ Private AHT ❖ CBAHW 	300 2495 0 165 0 1799	200 5000 0 300 0 ?	To be redeployed, trained and employed. Create an enabling environment Train/ retrain
		TRANSPORT <ul style="list-style-type: none"> ❖ Vehicles ❖ Motorcycles ❖ fuel ❖ drivers 	30 25	100 121 500,000	Repair /purchased Redeploy/recruit
		COLD CHAIN <ul style="list-style-type: none"> ❖ Cool box ❖ Ice packs ❖ Fridges ❖ Deep freezer ❖ Cold room 	50 - 50 20 1	500 800 130 100 3	Repair /purchased
		VACCINATION EQUIPMENT <ul style="list-style-type: none"> ❖ Syringes ❖ Needles ❖ Sterilising equipment ❖ Branding 	50 100 50 50	1000 40,000 200 200	Repair /purchased
		VACCINATION CRUSHES	?	6,000	Repair
		VACCINE	7,000,000	10,000,000	For the 1 st year
			?	18,000,000	For the 1 st year

COUNTRY	DISEASE	DISEASE CONTROL FACILITIES	AVAILABLE	REQUIRED	REMARKS
		CAMPING EQUIPMENT	3	100	Repair /purchased
UGANDA		PERSONNEL ❖ Public Vet ❖ Public AHT ❖ Junior AHT ❖ Private Vet ❖ Private AHT ❖ CBAHW	350 1200 0 250 ? 500	100 500 0 250 500 ?	To be redeployed, trained and employed. Create an enabling environment Train/ retrain
		TRANSPORT ❖ Vehicles ❖ Motorcycles ❖ fuel ❖ drivers	80 200 - -	100 200 - -	Repair /purchased Redeploy/recruit
		COLD CHAIN ❖ Cool box ❖ Ice packs ❖ Fridges ❖ Deep freezer ❖ Cold room	150 - 70 50 1	500 - 70 60 3	Repair /purchased
		VACCINATION EQUIPMENT ❖ Syringes ❖ Needles ❖ Sterilising equipment ❖ Branding	500 ? 60 ?	1300 ? 60 ?	Repair /purchased
		VACCINATION CRUSHES	?	2,000	Repair
		VACCINE		6,000,000	For the 1 st year
				10,000,000	For the 1 st year

COUNTRY	DISEASE	DISEASE CONTROL FACILITIES	AVAILABLE	REQUIRED	REMARKS
		CAMPING EQUIPMENT	?	100	Repair /purchased

Annex V:

ON GOING ANIMAL HEALTH PROJECTS IN THE PARTNER STATES

The ongoing projects contributing to animal health within the three Member States of the East African Community will have no much significance reduction on the total cost of the Regional Project for Control of Transboundary Animal Diseases (TADs).

The ongoing animal health projects will be an added advantage to the TADs Project because it will shorten the period of achieving the objectives. For instance the project may only be involved in the eradication phases(s) for example in areas where vaccination programmes against CBPP has been carried out for at least three consecutive years.

The ongoing projects are hereby listed below: Kenya, Tanzania and Uganda.

KENYA

1. Asal Based Livestock Based Rural Livelihoods Project (ASAL)

Project area and beneficiaries

The project area consists of 22 districts covering the ASALs and reflecting the major production systems there-pastoralism and agro-pastoralism. Selection of these districts has been based on the level of poverty and potential of success of impact.

The districts to be covered include the pastoral districts of Garissa, Isiolo, Mandera, Marsabit, Moyale, Samburu, Tana-River, Turkana, Wajir and West Pokot, where livestock production is the predominant activity, and the agro-pastoral districts of Baringo, Ijara, Kajiado, Laikipia, Mbeere, Machakos, Makeni, Kitui, Malindi, Mwingi, Narok and Taita Taveta, where a mixed crop-livestock production system is practiced.

West Pokot and Turkana districts are in the Turkana-Karamojong ecosystem while Narok, Kajiado, and Taita-Taveta fall within the Masai ecosystem.

Funding: GoK-ADB

ADF, GoK, Beneficiaries contribution.

The project will be financed by the ADB (loan and grant) and the GoK., including contributions from the beneficiaries. Total project cost is estimated at US \$ 37 million. ADBs contribution will amount to US \$

30,000,000 while the GOK and the beneficiaries will provide the rest of the funding.

Objectives:

The overall sector goal is to contribute to poverty reduction at the national and household levels, consistent with the government's policies of mainstreaming the ASAL areas in the economic framework of the country. The specific objective of the project is to improve sustainable rural livelihoods and food security through improved livestock productivity, marketing and support for drought management and food security initiatives in the ASALs.

Project Life: 6 years w.e.f. July 2004

Outputs:

In order to attain its objective, the project will focus on four main technical components with the following outputs:

- **Sustainable livestock improvement:** livestock productivity improvement, including training of livestock producers in various aspects of animal husbandry. Includes support to stock breeders.
- **Animal health improvement:** including support to livestock movement control (3 quarantine stations, 3 terminal and export transit stations rehabilitated), disease diagnosis, surveillance and control (FMD, CBPP, Rinderpest), establishment of disease free zone, and awareness and public education campaigns on the importance of stakeholder participation in disease control and spread.
- **Livestock marketing improvement:** including support to strengthen existing market information systems, establishing 4 satellite slaughterhouses in 4 districts, camel market improvements in 10 districts, training of stakeholders on the provision of marketing development expert in support of traders and groups in livestock marketing activities, including linkage with micro-finance institutions.
- **Drought management and food security initiatives in place:** including support to enhance incomes and food security in the ASALs, focusing on support for beekeeping, camel rearing, livestock early warning systems and drought mitigation measures, improvement of water supply points, gender sensitisation and support activities, and support for demand-driven community-based participatory initiatives, farmer training,
- Project coordination and management

2. Arid Lands Resource Management Project Phase II

Project Objectives:

The second phase of ALRMP will build upon the first ALRMP that closed on June 30, 2003. The objective of ALRMP I was to build the capacity of communities in the arid districts of Kenya to better cope with drought. The evaluation concluded that the project had met its objective.

The project development objective of the proposed second phase is to enhance food security and promote sustainable livelihoods through implementing effective systems and development approaches which reduce vulnerability. ALRMP II will support three complementary channels of intervention, which together address the complex problem of vulnerability, and enable communities in the project area to move beyond survival and subsistence to sustainable development:

1) Strengthening and institutionalising natural resource and drought management, which will improve the management of natural capital, reduce the impact of natural shocks and reduce acute vulnerability by reinforcing preparedness and mitigation activities, and by improving the effectiveness of response interventions; 2) Empowering communities so that they can successfully identify, implement and sustain their development priorities through community-driven – development; and 3) Fostering a conducive enabling environment for development in the arid lands through policy support, advocacy and improvement in the delivery of essential services, complementing existing sector programmes.

Project Area and Beneficiaries

The project area comprises the eleven arid districts covered under ALRMP Phase 1: Turkana, North Baringo, Samburu, Isiolo, Marsabit, Moyale, Mandera, Wajir, Garissa, Ijara and Tana River. All three components will be implemented in these districts. The first component-Natural Resources and Drought Management-will also be implemented in ten semi-arid districts: Narok, Trans-Mara, Kajiado, Makueni, Kitui, Mwingi, Tharaka, Mbeere, Laikipia and West Pokot, as well as two divisions in Nyeri district, Kieni East and Kieni West. These extension districts were selected based on criteria of agro-ecological characteristics and levels of food insecurity, measured by their qualification for WFP emergency food distribution districts in the 2001 drought assessment.

Funding: World Bank: US \$ 60 million

Project life: 6 years

The project will address the following technical issues:

Natural resource management; water development; animal health; establishment of disease free zones; crop development; education for nomadic pastoral communities and HIV/AIDS.

Animal health

During the first phase, ALRMP supported significant investments in the training of Community Animal Health Workers (CAHWs) and is setting up community-based dispensaries. ALRMP II will remain engaged in the debate on appropriate reforms to the veterinary service, fund technical studies where appropriate, and provide support to various levels of service providers in relation to their responsibilities and the impact of their operations on poverty reduction in arid lands.

DFZ

The project will support a full consultation process involving all major stakeholders on the appropriate approach to follow when setting up DFZs and quarantine areas. Essentially, DFZs should be managed by the private sector.

3. Pan African Control for Epizootics (PACE)

PROJECT SUMMARY

Sector	Livestock
Ministry (Sub-Sector)	Ministry of Livestock and Fisheries Development
Programme/Project Name	PACE Kenya
Location (District)	Countrywide
Status	Ongoing
Implementing agency	GoK, Department of Veterinary Services
Year started	2002
Year of completion	2004
Total project cost	US \$ 3,655,761

Project Description

EU and GoK support PACE Kenya Programme jointly. PACE Kenya runs from 2001 to 2004 and builds on the achievements of PARC. PARC programme was also jointly supported by EU and GoK and ended in 1999. Both PARC and PACE programmes are regional in nature covering East, Central and West African Countries.

PACE, which is coordinated by AU-IBAR, is intended to build on the headway made in the campaign against rinderpest in order to establish low-cost national and continental epidemio-surveillance networks for the main animal diseases, provide the capacities needed to organise economically and technically justified control programmes, and develop effective and sustainable distribution of veterinary products and services.

PACE Kenya blend with the identified core functions of the Veterinary Department and recognises the need for input by all stakeholders in the animal health services delivery.

The primary target group is the livestock owners who will benefit from improved and readily available veterinary services, private sector veterinary professionals and the GoK, whose role will be increasingly concentrated on its core functions.

Purpose

The purpose of PACE Kenya is to strengthen the capacity of the national animal health services to plan, implement, monitor and evaluate the control of epizootic diseases with emphasis on private sector participation.

Key outputs

- Strengthened disease control capacity of the Department of Veterinary Services
- Greater privatisation of veterinary services and public-private sector linkage enhanced in the field
- Rinderpest eradicated in Kenya following the OIE pathway
- Coordinated control of other epizootic diseases with special reference to CBPP

General remarks

The biggest constraints/challenges have been the delay in the release of EDF funds, procurement procedures (e.g. project vehicles that should have been purchased during the first year of implementation are yet to be received) and rinderpest outbreaks in wildlife (2001) and cattle (2003).

The veterinary privatisation component particularly targeting the ASALs is not well funded and limited support have so far been received from the CAPE uni of PACE AU-IBAR Programme.

4. Farming In Tsetse Controlled Areas (FITCA)

The EU funded FITCA project is addressing the common problem of sleeping sickness and animal trypanosomosis along the Kenya-Uganda Border.

Cost: € 4.6 million

Objectives:

To improve the welfare of the people of the tsetse infested region (Bondo, Siaya, Teso and Bungoma Districts) through sustainable development. Long term aim is sustainable tsetse control organised and financed by livestock owners.

Activities undertaken:

- Tsetse and trypanosomosis control using traps and targets, livestock sprays and zero-grazing protection nets.

- Development of improved animal health efficient animal health delivery system:
- Capacity of building of one private veterinarian in each project district through retraining in diagnostic techniques and artificial insemination and provision with a motorcycle.
- Support to ten private animal health assistants per district through retraining in improved diagnosis and AI. This included linkage to private veterinarians for supervision.
- Support to farmers: training in improved calf management, improved indigenous cattle management and support in acquisition of dairy animals.
- Training public sector veterinarians: a public vet in each of the project districts has been trained in improved diagnostic techniques. The districts have been provided with diagnostic equipment to be used for disease diagnosis and training of animal health assistants.
- Other activities undertaken include: poultry development, training of farmers in drought power and conservation tillage, cassava bulking, research and development and human resources capacity building and institutional strengthening.

General remarks

This regional project has worked well in Kenya. The mid-term review a further no cost extension until December 31st 2004 and any unspent funds and thereafter a second phase.

TANZANIA

The United Republic of Tanzania includes the Indian Ocean islands of Zanzibar and Pemba and the mainland territory formally known as Tanganyika. It lies between latitudes 1 and 11 degrees south of the equator and covers an area of 945,200 sq.km. The total population of Tanzania is estimated at 34.5 million (2002 census). Tanzania's natural resources offer many opportunities for development, although at present the economy is still heavily dependent on agriculture, which accounts for 50% of GDP, provides 75% of exports and employs 80% of the total workforce. The industrial sector accounts for 8% of GDP and is mainly limited to processing Agricultural products and light consumer goods. The government aims to see the sectors share of GDP grow to 10% over the next 25 years. Tanzania has a network of game parks and reserves covering about 25% of the land area. It comprises 12 National parks, 17 game reserves, 50 game controlled areas, a conservation area and a marine park. The GDP growth rate rose to 5.6% in 2001, from 4.9% in 2000. Growth in 2001 was based on relatively strong performance in agriculture, mining, wholesale and retail trade (including tourism) as well as manufacturing.

The 1997 Agriculture and Livestock Policy

Following economic reforms the agricultural sector had to review its policy to be realigned and adequately address the new challenging environment with the ultimate goal to improve the well being of the people whose principal occupation and way of life is based on agriculture.

The Agriculture and Livestock Policy of 1997 proposed the following: -

- (i) Liberalisation of Agriculture markets and removal of state monopolies in the export and import of agricultural goods.
- (ii) Clear definition of roles of government and private sector in production and provision of Support Services.
- (iii) Government responsibility to regulate industry regulation through commodity Boards.
- (iv) Emphasis on food security at the national and household levels.

1. Agricultural Sector Development Strategy (ASDS)

The Agricultural Sector Development Strategy (ASDS) aims to complement to the ongoing macro-economic adjustment and structural reforms that are supported by development partners in Tanzania. ASDS originated from the Agriculture and Livestock Policy of 1997 and the Cooperatives Development Policy of 1997 and has been prepared by MAFS, MCM, MWLD, and PO-RALG. Poverty Reduction Strategy (PRS), the Rural Development Strategy (RDS) and the Tanzania Development Vision (TDV) 2025 guide Agricultural Sector Development Strategy (ASDS). 2025. It is an instrument for guiding public and private efforts towards broadly shared sector objectives and specific inputs and outputs.

ASDS Objectives;

The primary objective of the ASDS is to create an enabling and conducive environment for improving profitability of the agricultural sector as the basis for improved farm incomes and rural poverty reduction in the medium and long term plans and for ensuring household food security. ASDS provides a basis for actions by both the Public and Private Sectors to meet agreed inputs and outputs in the agricultural sector at national and district levels. ASDS is therefore critical to Tanzania's efforts stimulate agricultural growth and reduce rural poverty.

Identified strategic areas of intervention in the agricultural sector area as follows:

- Strengthening institutional framework;
- Creating a favourable environment for commercial activities;
- Defining public and private roles in improving services;
- Strengthening marketing efficiency for inputs and outputs and
- Mainstreaming planning for agricultural development in other sectors.

ASDP-Formulation

The Government has prepared ASDP as an instrument for stimulating growth and reducing poverty by implementing the ASDS. The strategy is the product of a participatory consultative process at the national and grassroots levels, encompassing farmers, livestock keepers, farmers' organizations, NGOs, CBOs, agribusiness representatives, government officials and development partners. The process of developing the strategy involved consultative workshops at zonal and national levels.

How was ASDP Developed?; was developed through stakeholder involvement

The ASDP contains three innovative features focusing on agricultural productivity and profitability by creating a favourable environment for investment in agriculture and allowing farmers to produce according to demand; promotion of private sector and processor/contract, grower partnerships and implementation of ASDS through ASDP and District Agricultural Development Plans (DADPs)

Some projects within the program have been developed and funds are being sought. The proposal also addresses some of the many issues that constrain the performance of Tanzanian agriculture.

Targets for five-year plan (2002-2007)

For the past three years the Ministry has been implementing a total of eight targets through the medium term Expenditure Framework (MTEF) that also focuses in achieving the PRSP of 2001 target set for the agricultural sector for five year include:

- i). Increasing real annual agricultural GDP growth from 3.6% to 5% by year 2003 and 6% by year 2005
- ii). Increasing real annual growth rate of the livestock component from 2.7% to 5% by the year 2005
- iii). Increasing real annual growth rate of the export crops from 6.8% to 9% by year 2005

To implement its role and meet the PRS targets the Directorate of Veterinary Services implements the following:-

- i. To control and arrest the spread of Contagious Bovine Pleuropneumonia (CBPP) in the country by year 2007.
- ii. To strengthen zoosanitary inspectorate, animal feed stuffs and quality control Unit to perform regulatory services effectively by the year 2007.
- iii. To control and eradicate other zoonoses in particular tuberculosis and brucellosis by the year 2007
- iv. To strengthen and formulate ticks and tick borne disease control by year 2007
- v. To strengthen and improve meat, hides and skins inspection services and licensing by year 2007.
- vi. Strengthen Veterinary Investigation Centers, Central Veterinary laboratory, analyze, process animal diseases data and equip the unit by 2007.
- vii. To raise community awareness of tsetse and trypanosomiasis control techniques every new financial year 2007
- viii. To improve and sustain veterinary services through updating of legislation by year 2007

2. Transboundary diseases and Pan African Control of Epizootic Program (PACE)

Panzootic with rapid spread. Reaching epidemic proportions in a very short time. They have high socio-cultural impact, threat to food security. Barrier to international trade, high economic losses and usually transmitted by contact. The most important TADs include Rinderpest, Contagious Bovine Pleuro- pneumonia (CBPP), Foot and Mouth Disease (FMD), African Swine Fever (ASF), Lumpy skin disease (LSD), Newcastle disease (NCD) and Rift valley fever.

Although there is a policy for the control of animal diseases in the country and with special reference to the TADs. The effective strategy for control is lacking or where it has been developed there is no funding. The staff are only able to provide minimal service at village level. As a result there has been increased incidences of Transboundary animal disease. Meagre financial resources for both development and operational expenditure have aggravated this situation. Privatisation of animal health delivery as an alternative has only started in the urban areas leaving the disadvantages rural areas unattended. This accords with the livestock policy outlined above.

The PACE program

The PACE program was formulated with the purpose of revitalisation of the animal health services through strengthening National and Zonal capabilities to sustain surveillance as well as strategic control of

major animal diseases and to improve the animal health care in Tanzania. The achievements of effective control of epizootic diseases would facilitate Tanzania to participate in international trade of livestock and their products, which would benefit livestock producers, traders and national economy.

The emphasis is on epidemio-surveillance and compliance to the OIE pathway for the eradication of rinderpest.

Emphasis is also placed on diagnosis and communication. On transport facilitation recently vehicles were provided to the Ministries Head quarters, ADRI and the VICs. to enable field and supervision activities to be implemented.

The PACE program is ending next year.

Livestock marketing in Tanzania

Prior to 1974, livestock marketing depended on the commercial operation of the Tanganyika Packers Limited (TPL) a meat plant that was constructed at Kawe in DSM in 1949. With a slaughter capacity of 1000 cattle per day and a canning capacity of eight hundred tons the company processed and exported up 9,000 tones of corned beef and canned meat extract annually. At the time the company was nationalized in 1974 the annual output was running at 200,000 heads of cattle, half of which went to the Dar es Salaam fresh domestic supply on which the company had monopoly.

After nationalization in 1974, the Company lost its United Kingdom Sanitary Certificate and this closed the door to Tanzania on exports of meat and meat products to Western Europe. The loss of the TPL export market made the country livestock marketing system and livestock movement patterns to change. Closure of the TPL plant at Kawe meant the inflow of cattle into DSM was cut by fifty percent to 100,000 per year. Excess cattle, which were formerly bought for export by TPL, started searching for new markets in the northern and western borders of the Country. A study done by the Tanzania Livestock Marketing Project in the year 2000 indicated that about 300,000 cattle crossed the border to the neighboring countries annually. Of these about 85 percent (255,000 head per annum) cross the Northeastern border mainly to Kenya. The same study established that before the outbreak of Contagious Bovine Pleuro-Pneumonia in 1990 there was a strong trade in the Northwestern border whereby about 3,000 cattle crossed the border annually to Burundi and Uganda. This informal trade across the borders has flourished because there is a powerful incentive for traders to by pass formal movement channels and procedures, or to corrupt the system through inducements.

In the 1980 there were different marketing institutions, which dealt with livestock like KABIMITA and LIDA, which were responsible to assist in livestock marketing. After the collapse of these institutions to date there is no institution, dealing with livestock marketing.

3. Tanzania Livestock Marketing Project (TLMP).

In the effort to regain the lost export market and to revitalize the livestock marketing system in the country the Government of Tanzania (GoT) solicited a loan from the African Development Bank (\$ 11.4 Million) in 1992 with the aim of rehabilitating the livestock marketing infrastructure, strengthening the marketing information system, construction of a modern abattoir at Dodoma and institutional support. Since the project started in July 1994, the loan funds have been used to rehabilitated 75 night camps out of 90, 26 primary markets, 14 secondary markets, 6 boarder markets, 10 check points out of 15, 2436 km of stock routes out 3,000 km have been surveyed and demarcated, 10 holding grounds out 13, 7 railway siding out of 10 and 50 out of 60 cattle wagon bogies have been rehabilitated. The construction of Dodoma abattoir and a Meat Industry Training Centre and will be completed in May 2004. The abattoir will act as fulcrum for production of quality prime meat cuts with a target of meeting the demand of quality beef for Dar es Salaam super markets, tourist hotel and mines located in the Mwanza, Shinyanga and Mara.

The project will wind up this year.

UGANDA

1. Pan African Control for Epizootics

The total cost for the project worth Euros 2,658,630.

PACE project is a regional project that operates in 32 countries including Uganda. Its has four main thrust in Uganda; to Enhanced National Capacities, Improved Delivery of Veterinary Services, Rinderpest Verifiably Eradicated and Control Of Other Epizootics. The fixed assets for this project include 10 vehicles, and 62 motorcycles distributed to all the 56 districts of Uganda.

2. Farming in Tsetse Controlled Areas (FITCA)

The total cost for the project is 4.8 million Euros

FITCA project is a regional project with the overall objective of the Uganda component being the Farming in Tsetse Controlled Areas. The project is to contribute to the improvement of the health of the rural population of south eastern Uganda [12 districts] in order to help develop the economy of the region. The project purpose is to contain

the human and animal trypanosomiasis in order to improve agricultural productivity and land use. The fixed assets of the project include 17 vehicle, 50 motorcycles computers and their accessories, GPSs and laboratory equipment, distributed to the 12 south eastern Uganda districts in which the project operates. Some of these assets are distributed to the research sector. There are 5 major objectives that can be said to determine the FITCA Uganda project:

- ◆ To lower the tsetse population in the project area by 95% or more
- ◆ To reduce the annual sleeping sickness incidence rate in the population to less than 2 per 100,000
- ◆ To reduce the prevalence of animal trypanosomiasis to 5% or less
- ◆ To optimally utilise the tsetse reclaimed land using appropriate farming systems
- ◆ To carry out adaptive research relevant to the objectives of the project

3. Other Projects

3.1 Emergency Assistance to Control Foot and Mouth Disease in Uganda FAO TCP cost US\$355,000.

3.2 Emergency Assistance to Control African Swine Fever in Uganda FAO TCP, cost 307,000. for year 2003-2004

3.3 *Productivity Improvement Project (NLPIP) has just started. Costs Units of Accounts (UA) 33. 6 million for five years*

The National Livestock Productivity Improvement Project (NLPIP) is a national project that has just started. It will cover 29 districts of the cattle corridor. Its overall objective is to increase household incomes through increased livestock productivity and marketing. The expected outputs are; Increased livestock ownership in poor rural households and redistributed livestock in the cattle corridor; Improved livestock health; improved water supply for livestock especially in dry seasons; Improved livestock market facilities and information systems; Improved livestock inventory and range information and a well implemented and managed project. NLPIP plans to procure 58 motorcycles, upgrade 15 district laboratories, rehabilitate 75 dips, procure 23 cold chain equipment and vaccination kits, build 3 quarantine stations and 3 holding grounds, establish 3 disease control zones, and establish checkpoints. Further more the projects plans to upgrade the National Diagnostics and Epidemiology Center, establish national stock routes, procure vehicles and computers and their accessories and improve 170 markets and 100 slaughter slabs.

From the two FAO TCP, the fixed assets that were acquired are 20 motorcycles and forty GPSs.

The projects above have greatly contributed to the livestock sector but are specific to the various target activities and areas for which they

were designed. The asset input proposed by the Transboundary Animal Diseases Project are similar in many cases but can not be replaced by those in the existing projects due to specificity in activities and location of the assets. The projects are therefore complimentary not substituting each other.

SUMMARY OF PROJECTS DEALING WITH ANIMAL HEALTH IN UGANDA

Name	Scope	Budget	Duration	Staff	Donor
Pan African Control of Epizootic Diseases	Regional	2.658.630 Euro.	2003-2004	8	EC
Farming in tsetse Control Areas of East Africa.	Regional	4.8m Euro.	1999-2003	3	EC
Emergency Assistance to Control Foot and Mouth Disease in Uganda	National	US \$361,000	2002-2003	20	FAO
Emergency Assistance to Control African Swine Fever in Uganda	National	US \$309,000	2003-2004	23	FAO
National Livestock Productivity Improvement Project	National	UA 33.60 million	2004-2009		ADF Loan, TAF. GoU & Beneficiaries

Annex VI

INSTITUTIONAL FRAMEWORK FOR THE EAC TADs PROJECT

Annex VI

INSTITUTIONAL FRAMEWORK FOR THE EAST AFRICAN TRANSBOUNDARY ANIMAL DISEASE CONTROL PROJECT

