

AGRICULTURE AND RURAL DEVELOPMENT

DEPARTMENT OF VETERINARY SERVICES

**PAN- AFRICAN PROGRAMME FOR THE CONTROL OF EPIZOOTICS (PACE)
FIRST YEAR ANNUAL WORK PROGRAMME AND COST ESTIMATE**

(March 2001- February 2002)

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TABLE OF CONTENTS

CONTENTS	PAGES	
PART I		1
INTRODUCTION		1
BACKGROUND		1
STRATEGY FOR THE IMPLEMENTATION OF PACE KENYA		2
BACKGROUND		2
THE OVERALL STRATEGY		3
THE FOUR THRUSTS OF PACE KENYA PROGRAMME		3
PART II		5
EXPECTED RESULTS AND ACTIVITIES OF PACE KENYA		5
STRENGTHENED NATIONAL DISEASE CONTROL STRATEGY		5
GREATER PRIVATIZATION AND PRIVATE-PUBLIC LINKAGE		11
ERADICATION OF RINDERPEST		12
COORDINATED CONTROL OF CBPP AND PRIORITY DISEASES		17
MONITORING AND EVALUATION		19
PART III		20
COST ESTIMATES FOR PACE KENYA		20
PART IV		28
IMPLEMENTATION PROCEDURES		28
ANNEXES		
LOGFRAME		
ACTIVITY TIME CHART		
ANNUAL COST ESTIMATES		
ORGANOGRAMME		
MAP OF KENYA		

PART I

INTRODUCTION

1. BACKGROUND

The Pan-African Rinderpest Campaign (PARC) Kenya project work plan was signed in 1995 and implemented alongside the Emergency Programme for the Eradication of Rinderpest in Kenya (EPERK). The PARC project cost a total of 2.4 million ECU. The amount includes 750,000 ECU that had a separate work plan prepared by the Kenya Veterinary Association (KVA) covering a credit line and a programme for private veterinarians. The remainder of the project was composed of six components, namely: rinderpest control and surveillance; contagious bovine pleuropneumonia (CBPP) testing; acaricide testing; monitoring and border harmonization; strengthening of foot and mouth disease (FMD) control; and technical assistance. EPERK financing became necessary following outbreaks of rinderpest in wildlife. Both PARC Kenya and EPERK had the ultimate goal of eradicating rinderpest from Kenya as an integral part of a coordinated regional approach to eradicate the disease from Africa and globally, under the umbrella of Global Rinderpest Eradication programme (GREP).

PARC-K/EPERK officially ended in 1999 but has to date continued to support essential services such as disease surveillance and vaccination in high-risk areas / sanitary cordon with the savings carried forward. The Pan-African Programme for the Control of Epizootics in Kenya (PACE-Kenya) is intended to build on the achievements of PARC. The PACE Kenya programme has the overall objective of contributing to rural development and poverty alleviation. This will be reached through effective disease control and animal health care, which will secure the availability of livestock and animal products, thus contributing to the welfare of livestock keeping communities. The programme purpose is to strengthen Kenya's animal health national capacity to plan, implement, monitor, and evaluate the control of epizootic diseases with the participation of private sector.

The primary target group is the livestock owners in the whole country who will benefit from improved and readily available veterinary services. The private sector veterinary professionals delivering animal health care and participating in disease control will also benefit. The Government of Kenya will benefit from the programme by increasingly concentrating on the Department's core functions such as statutory and regulatory matters and in the formulation of disease control and surveillance policies. Specifically, an operational and strengthened Epidemiology and Economics Section will enhance the Department's capacity to control notifiable diseases, especially the transboundary diseases. The Control of these diseases will facilitate external trade as per OIE and World Trade Organization (WTO) trade requirements

STRATEGY FOR THE IMPLEMENTATION OF PACE KENYA

2.1 BACKGROUND

The conceptual PACE strategy provides a framework within which the PACE Kenya programme will be developed and linked to sub-regional and regional strategies for surveillance and control of the major epizootic diseases.

PARC-Kenya's initial strategy for the control and progressive eradication of rinderpest relied on raising national herd immunity to stop transmission of the virus through mass immunization. Two rounds of mass vaccination were held between October 1997 and March 1999. Districts within the central, southern and northern parts of the country (Kenya Map is annexed) where access to cattle was good, the vaccination coverage approached 100% and sero-conversion 80%. Districts in the northeastern and northwestern parts of the country (at very high risk of rinderpest from southern Somalia and Sudan) that are predominantly arid and are occupied by pastoralists had lower sero-conversion levels (<50%), necessitating another round of mass vaccination in 1999/2000. In spite of a near good vaccination coverage, sero-monitoring results still show that the immunity levels achieved (average 63%) are too low to serve as a buffer zone.

Disease surveillance in cattle and small ruminants put in place since the 1996 outbreak have not identified clinical disease nor pockets of virus infection. However, serology carried out on wildlife samples has indicated the probable circulation of the rinderpest virus as recently as 1998 in Tana delta, Garissa and Tsavo East (Zone II), but has not been supported by follow-up investigations in livestock. The virus is thought to have been brought in through livestock movement from southern Somalia and could have coincided with the 1998 mass vaccination and therefore died out.

Kenya entered the OIE pathway for the eradication of rinderpest through the delineation of three zones. Provisional freedom for zone I was declared in January 1999 after ceasing vaccination in December 1998. The OIE and all neighboring countries were henceforth notified on January 1, 1999. Zone II and III are adjacent to rinderpest endemic areas of southern Somalia and southern Sudan respectively. Kenya and her neighbors have envisioned a sub-regional approach to control rinderpest within eastern Africa. Kenya has started implementing the steps needed to obtain OIE recognition of freedom from disease and infection.

PARC-Kenya's other achievements were in major policy changes that aim to improve the sustainability of veterinary services. These include:

- Implementation of cost recovery.
- Liberalization of policies for drug importation and distribution.
- Privatization of animal health services.
- Contracting of private veterinarians.
- Acceptance of community animal health workers (CAHWs) as a complementary provider of animal health services.
- The establishment of Veterinary Services Development Fund (VSDF).

With these achievements therefore, PARC Kenya has provided PACE Kenya with a basis for its rinderpest eradication strategy and for achieving its other objectives.

1.2 THE OVERALL STRATEGY

PACE Kenya strategy is to build on the structures put in place by PARC Kenya, strengthen the animal disease surveillance and control capacities, support sub-regional and regional initiatives for the surveillance and control of priority epizootic diseases, and adhere to OIE guidelines for the verification of freedom from rinderpest infection.

To enhance the sustainability of the impact of PACE, the following accompanying measures have been taken into consideration:

- The Government is committed to comply with OIE pathway recommendations for the eradication of rinderpest until its completion.
- Continued commitment to the implementation of the privatization process and cost recovery.
- Institution of a contingency plan for emergency preparedness to control epizootic diseases.
- Progressive increase in government financial commitments to meet the full costs of a functional and effective epidemio-surveillance network which shall be linked to regional and continental networks by the year 2004.

1.2 THE FOUR THRUSTS OF THE PACE KENYA PROGRAMME

2.3.1 Strengthening disease control capacity of the department of veterinary services.

PACE Kenya will undertake to develop disease control strategies. This will require reliable information, which in turn depends upon the existence of effective disease surveillance systems. The systems will encompass continuous systematic collection, analysis, and interpretation of animal health data in association with prevailing risk factors and economic considerations for use in planning, implementation, and evaluation of disease control strategies.

Disease surveillance is a core function of the Department of Veterinary Services of Kenya. Although PARC Kenya initiated the development of a laboratory network for the surveillance of rinderpest control and eradication, PACE Kenya will develop, strengthen, and broaden the network to cover all priority animal diseases.

The expected result is that the national capacities for analysis and action in the fields of epidemiology, animal health socio-economics, communications, and project management will be enhanced.

2.3.2 Greater privatization of veterinary services and public-private sector linkage in the field.

The veterinary legislation in Kenya already obliges the involvement of private veterinary practitioners in state veterinary services. PACE Kenya will promote the further rationalization of veterinary services to ensure that public goods are effectively safeguarded with appropriate involvement of the private sector.

It is expected that PACE Kenya will improve the accessibility and distribution of veterinary services and medicines based on a harmonized approach to the privatization process and coherent links between public services and private operators.

2.3.3 Clean Kenya of rinderpest, uphold measures to keep it from re-introduction and verify freedom of infection

The fight against rinderpest will be sustained to safeguard the investments made to date, by achieving the goal of national eradication of rinderpest, and contributing significantly to the continental and global eradication of the disease.

2.3.4 Control of major epizootic diseases.

PACE Kenya will in collaboration with OAU/IBAR and countries within the sub-region develop strategies for the control of major epizootic diseases. The comparative economic advantages of various strategy options will be highlighted by the results of specific studies. The DVS will report timely the occurrence of OIE List A diseases including wildlife, which will reinforce its link with regional epidemio-surveillance networks and the refinement of strategies for the control of epizootic diseases.

The activities under this trust will improve the strategic control of priority epizootic diseases based on full cost recovery.

PART II

EXPECTED RESULTS AND ACTIVITIES OF PACE KENYA

1. Strengthened national disease control capacity

The project will mainly support the Government animal health services through the development of its epidemiological, diagnostic, reporting and communication capacities, formal training, and the implementation of emergency preparedness plan. Provisions will be made for short-term consultancies, technical assistance, project coordination, and equipping and operating of epidemiology/economics and communication units. The following activities and sub-activities will be implemented during the first year to contribute to enhanced national disease control capacity. The costs associated are described in PART III and the Activity Time Chart is annexed.

1.1 National animal disease surveillance capacities developed and epidemiological knowledge and skills improved

In year 1 of the project, capacity building will be restricted to fields identified as immediate and important. This notwithstanding, an independent training needs assessment is intended and budgeted for, early in the year. Training will be both formal and workshop oriented. The specific sub-activities are:

- Engage a consultant to objectively articulate the training needs required for optimum implementation and sustainability.
- Train up to 10 field staff in training of trainers at Kenya Institute of Management for 3 weeks.
- Train at least 2 communication unit members of staff in communication skills at Kenya Institute of Management (or other) for 1 month.
- Engage a consultant for 2 weeks to train up to 4 staff of CBPP diagnostic laboratory on CFT antigen standardization.
- Engage a consultant for 2 weeks to train up to 4 staff of rinderpest diagnostic laboratory on the adoption of differential diagnostic tests.
- Engage a consultant for 1 month to install and train up to 4 epidemiologists/ data clerks on GIS techniques.
- Engage a consultant for 5 days to train up to 5 epidemiologists/ surveillance officers on PRA techniques.

1.2 Reliable reporting system with feedback for animal health developed and implemented

Reporting and epidemiological services are necessary for the development of disease control strategies. The epidemiology unit designed and distributed to all field stations (districts, provinces, and veterinary investigation laboratories) new monthly reporting formats compatible with the needs of GIS towards the end of year 2000.

Concurrently, a GIS based program, TADinfor was installed in the unit's computer and staff trained on its use. Already some districts are using the new reporting format. The epidemiology unit is continuously analyzing in-coming reports and the

suitability of TADinfor as a database and geographical mapping system. Suffice to mention that so far, TADinfor has been found to be lacking in several ways.

Districts within the country have been categorised as high risk, medium risk and low risk with regard to rinderpest and CBPP status. High-risk districts are all the 8 districts in zone II and III namely, Mandera, Wajir, Garissa, Ijara, Tana River, Lamu, West Pokot, and Turkana (Map of Kenya annexed). These districts are at high risk for rinderpest and are also incidentally endemic for CBPP and are, therefore, high priority districts for the PACE programme. Medium-risk districts are in zone I and border with high-risk districts and/or were previously at high risk for rinderpest and some are considered recently infected with CBPP. These districts are Kwale, Kilifi, Taita Taveta, Moyale, Marsabit, Isiolo, Mwingi, Kitui, Myambene, Tharaka Nthi, Makueni, Samburu, Trans-Mara, Narok, Kajiado, Laikipia, Trans-Nzoia, Keiyo, Koibatek, Baringo, Kuria, and Migori. The rest of the 32 districts in zone I are classified as low risk areas with respect to rinderpest and CBPP (except Narok, Kajiado and Transmara in Maasai area).

Under PARC, high frequency radio-calls were installed at district and provincial headquarters in rinderpest priority areas and at Kabete. An average of 5 cases of stomatitis-enteritis were reported and investigated annually in 1999 and 2000. Livestock owners in the RP sanitary cordon were sensitized through community awareness campaigns and community dialogue.

The targets for PACE Kenya are:

- By the end of the first year, up to 60% of the districts will have adopted the new reporting format and are reporting within 30 days from the end of the month.
- The Epidemiology Unit investigates all reported disease outbreaks within 7 days of first report.

To achieve this target, the epidemiology unit will complete its analysis of the incoming reports in the first quarter of the project year. At the same time, the final assessment on the suitability of TADinfor vis a vis other locally available GIS software will be made. Thereafter, a sample of the districts will be visited to verify key issues and listen to the views of the reporting officers. The necessary amendments will be made and the reporting formats refined in line with the selected GIS software.

Specific activities will be:

- The Director of Veterinary Services will appoint district disease surveillance and reporting officers (DDSROs) in high and medium risk districts.
- DDSROs will implement the new reporting format and co-ordinate active disease reporting including cross-border in their respective districts in high and medium districts
- DVOs in low risk districts will implement the new reporting format and carry out active disease reporting alongside their other duties.
- Livestock owners and all other stakeholders will be sensitized through disease awareness campaigns by the communication unit.
- Radio communication between headquarters and districts/provinces already in existence will continue and be streamlined.

- Inter-district, inter-province and international cross-border communication will be encouraged and promoted.
- Districts/provinces not on VHF and VILs will communicate among themselves and headquarters using the quickest means including telephone and fax.
- Public-private veterinary services interface will be increased and maintained as a basis for disease monitoring and surveillance system. Thus, private veterinarians and veterinary supervised CAHWs delivery system will be the baseline for information and rumour generation, especially in the ASAL
- The EU delegation in Kenya together with Treasury and OAU/IBAR will work out modalities for offering cash incentives to public and private practitioners and livestock owners who excel in disease reporting
- The Epidemiology Unit will investigate all reported disease events
- The epidemiology unit will enter, manage and analyze data and map out disease occurrence. The unit will also start providing quarterly feedback by the end of year.

Disease reporting will be enhanced by training up to 150 public and private veterinarians and animal health technicians in priority districts on disease reporting for 3 days.

To fulfill the foregoing, the epidemiology unit will have in place the following GOK staff:

Project epidemiologist (1), assistant epidemiologist/ GIS specialist (1), and 2 data entry clerks. In addition, the project will employ a computer technician, driver, and office messenger. The project will purchase the following equipment: 1 vehicle, 2 desk-top computers, 1 lap top computer, 1 computer projector with screen, 20 GPS's, 1 GIS software, computer software, and office furniture and renovation.

1.3 National network of animal disease surveillance is developed and made functional

A national network of animal disease surveillance is pre-requisite in the development of disease control strategies. Such a network will require reliable data, which will in turn depend on the establishment of an effective surveillance system. The system we envisage will encompass continuous systematic collection, analysis, and interpretation of animal health data in association with prevailing risk factors and economic considerations. Although disease surveillance is a core function of the Department, the surveillance data available can hardly be used for sound planning of animal disease control strategies. Under PARC, a laboratory network for rinderpest and CBPP was developed, but is still in its infancy. Disease surveillance and outbreak investigation formats designed by the FAO/IAEA were used for data collection, while TADinfor was used as the database and geographical mapping system. Like for 'Reliable disease reporting' above, the unit is currently analyzing the suitability of these formats and TADinfor.

The target for PACE Kenya is to have a network with functional database by the end year one. To achieve this, the following activities will be necessary:

- The epidemiology unit will continue to review the suitability of the existing formats and GIS software. If need be, new formats will be designed and an alternative GIS software package installed.
- Heads of VILs including CVL Kabete will implement and coordinate active disease surveillance, which includes purposive disease surveys (in sanitary cordon) based on both questionnaires and clinical inspection in their respective areas of operation.
- The epidemiology Unit will prepare, plan and implement/ supervise random clinical surveillance.
- The DVS will appoint stock route and market surveillance officers who will inspect the routes and markets on scheduled times.
- KWS staff will implement wildlife disease surveillance in priority areas.
- Diagnostic laboratories will provide diagnostic services in a timely manner
- The epidemiology unit will enter, manage, analyze data and map diseases. Further, the unit will interpret and disseminate the data results.
- Data from 1.2 above (reliable reporting system) will be incorporated here.
- The epidemiology unit will supervise and coordinate all the national disease surveillance network activities.
- The coordination unit will establish and maintain close links with OAU/IBAR PACE common services, regional and neighboring National programs via electronic mail. Thus, surveillance data on major transboundary diseases will be availed to the regional PACE office on a monthly basis.

To fulfill the above, a telephone and E-mail with local network will be installed in the epidemiology unit in addition to the other facilities listed above under 'Reliable reporting system'. To enhance the above activities, staff in epidemiology unit will be trained on GIS and PRA techniques (see 1.2) above. Further, 2 epidemiologists will attend bi-annual regional epidemiology workshops. The epidemiology unit will train up to 50 field including private practitioners and VIL staff on disease surveillance.

1.4 Economic assessment of diseases and disease control

The project will begin to develop the capacity to carry out economic impact assessment of animal diseases and disease control programs through training in economic analysis. The target for the first year is to set up the data requirements and system for data storage and start to develop the capacity for economic analysis and evaluation in accordance with the lines set out by the PACE socio-economics unit at OAU/IBAR. To achieve this, the following activities will be carried out in the first year:

- The Director of Veterinary Services will appoint a project economist from among the trained epidemiologist (one with a bias in animal health economics).
- The appointed economist will consult with the PACE socio-economics unit at OAU/IBAR on the data requirements, and carry out a survey to gather baseline data related to disease problems, production, livestock trade, prices and export, and micro and macro-economics.

To fulfill the foregoing activities, the economist will attend an annual regional economics workshop on data collection, storage, and analysis. Economic assessment of diseases and disease control will share equipment with the epidemiology unit.

1.5 Strategy development/ formulation

Already the Director of Veterinary Services has developed draft disease control strategies, among them rinderpest and CBPP. The communication unit will be publicizing these control strategies in the course of the year. Later in the year, the PACE steering committee will meet to review the rinderpest eradication strategy for Zones II and III and the draft control strategy for CBPP in accordance with the data available from within the country and the region.

At least 2 people (coordination and epidemiology) will attend the regional OAU/IBAR PACE meetings and present PACE Kenya progress reports.

1.6 Communication

The communication unit will carry out all the sensitisation for PACE Kenya. At the start of PACE, all appropriate means to sensitize all stakeholders (livestock-owners, public and private veterinary staff, NGOs, pastoralists, formal and informal leaders, policy makers and donors) on the new and expanded mandate of the PACE program vis-à-vis PARC will be used. Specific sub-activities in the first year are:

- Press releases will be written and circulated to all the leading newspapers and to the Kenya Broadcasting Corporation (KBC) radio and television. Launching of the programme by the Minister of Agriculture will facilitate and enhance the publicity.
- Communication workshops will be held with input from the communication common service unit to select target audiences, select appropriate media and language of communication relevant to each community. New communication strategies will be developed (drama and cultural activities). Messages that are pertinent to PACE e.g. creation of disease surveillance networks within the country, promotion of privatization and cost-sharing, livestock movement control and vaccination publicity campaigns for Rinderpest and CBPP will be developed. Radio messages will be produced at the AIC studios by the communication Unit with AIC staff. Print work will be developed by the communication Unit and graphic material will be designed by the communication common services Unit. All the communication tools will be pre-tested in the field before their release.
- Purchase of all communication equipment will be carried out to facilitate production of communication tools and carry out other communication activities. These include: a copy printer, two colour drums, one guillotine, one spiral binder, one public address system, office furniture (desk and chair), one vehicle and one laptop computer.
- Before implementation of specific activities of the Project, communication tools will be released for sensitization. Radio messages will be aired through KBC at strategic periods, Posters, brochures, booklets will be printed at the communication Unit and at commercial printing firms and distributed to the field.

- Training of two communication officers in effective communication management and four veterinary staff on training of communication skills will be done at the Kenya Institute of Administration (KIA) for one month and three weeks respectively. They will in turn train at least 30 veterinary extension workers on communication skills. At least 100 frontline extension workers will be trained on communication tools. Monitoring and evaluation of extension will be carried out. Community sensitisation and dialogue workshops will be carried out in the North Eastern Province (Mandera, Wajir, Garissa, and Tana River districts) and in the North West (Turkana and West Pokot districts). The communication Officer will attend at least one regional communication workshop.

Assessment of all the communication campaign work will be carried out after implementation. This will be done with collaboration of the AIC staff, Communication common services, the reached communities and field staff

1.7 Management and coordination (NCO)

A national management and coordination unit will be made fully operational in its own role to ensure proper project implementation. The NCO will be responsible for the overall management of the project. Specific activities are:

- Implement the project on behalf of the Director of Veterinary Services.
- Oversee the administration and finance of the program.
- Monitor and supervise all program activities and maintain a monitoring and evaluation database.
- Procure stores and maintain stores records.
- Convene monthly meetings with management staff.
- Convene quarterly steering committee meetings.
- Convene annual project work planning workshops for up to 15 persons and prepare the annual work plans.
- Coordinate national program activities within the sub-region and region.
- Submit regular quarterly reports of notifiable disease events to OAU/IBAR.

In order to facilitate the foregoing tasks, the Coordination Unit will:

- Provide for a technical assistant and provide for short-term consultancies in financial analysis, management, and organisational development.
- Employ a mechanic and office messenger.
- Purchase one vehicle and fax machine.

1.8 Reliable emergency preparedness plan for priority diseases

The essence of emergency preparedness plan is to enhance the national capacity for early warning and early reaction for priority diseases. Since emergency planning is a long and ever evolving exercise, the initial step will entail setting up of a National Animal Disease Emergency Committee that will seek to link up and work with the National Disaster and Emergency Preparedness Committee. The target in year one therefore will be the setting up of a National Animal Disease Emergency Preparedness Committee along the guidelines of FAO EMPRESS.

In the first year, PACE Kenya will undertake to develop a module and capacity for rinderpest (described under 3.4)

2. Greater privatization and private-public linkage

The activities will focus on increased involvement of the private sector in disease control. The private sector will be supported in the delivery of animal health care services and medicines through review of legal matters. The specific activities and sub-activities for the first year are detailed below. The costs associated are described in Part III and Activity Time Chart is annexed.

2.1 Promote stakeholder consultation /dialogue

Stakeholders at various levels will be consulted during the formulation of policies and legal review of laws and regulations pertaining to animal health care. Specific sub-activities in the first year will be:

- The DVS through the KVB will conduct an awareness campaign on the need to change/ modernize policies, laws, and regulations, especially those which are not supportive of the private sector.
- Engage legal experts to carry out subsidiary legislation on rules for improving the delivery of animal health services in Kenya.
- The DVS through the KVB and other stakeholders will carry out policy framework review.
- Engage a legal expert to review the legal framework for the Veterinary Surgeons Act (and Laws).

2.2 Engage private veterinarians, CAHWs and others in disease surveillance and control

- Sensitize private veterinarians on disease surveillance and reporting alongside public service veterinarians through training workshops, communication materials, articles in KVA meetings, and other professional gatherings.
- In marginal areas, PACE Kenya will promote active participation of private veterinarians/NGOs in surveillance, sample collection, and disease reporting and control through sanitary mandating.
- Link CAHWs in marginal areas to private veterinarians/ NGOs who will in turn report to DVOs.
- In high-risk areas, ensure active link among CAHWs, private veterinarian, NGOs, and DVO through organized meetings every second month.
- The DVOs will continuously provide coaching to CAHWs.

2.3 Support initiatives to obtain participation of livestock owners in disease surveillance

Livestock owners will be sensitized through radio, print, participatory workshops and seminars, field days, and agricultural shows. In the northwest, the communication unit will conduct community dialogue workshops. Modalities for remunerating livestock stakeholders who excel in genuine reporting will be worked out during the first year.

3. Eradication of rinderpest

The rinderpest eradication component will build on achievements gained under PARC Kenya project and EPERK in order to assist the country move along the OIE pathway. This will entail compliance with disease monitoring and surveillance requirements. Kenya will have two strategies for rinderpest eradication based on zoning.

Strategy for Zone I

The Zone was declared provisionally free in January 1999. The main activities in 1999 and 2000 were clinical surveillance and disease reporting both of which will continue into year 1 of the project period. Kenya will seek to have joint coordinated surveillance missions with Tanzania and Ethiopia because of the Maasai and Borana pastoral ecosystems that traverse the respective common boundaries. Wildlife populations will be sero-surveyed for antibodies to rinderpest both as proof of eradication and for verification to OIE. Emergency preparedness plans will put in place. Kenya intends to seek freedom from disease for this zone in the year 2002.

Strategy options for Zone II and III

These two zones are at high risk of infection from Somalia and Sudan. The problem is further compounded by the fact that southern Somalia and northeastern Kenya belong to the same Somali pastoral ecosystem, which poses security risk in certain places. In the northwestern Kenya, again cattle raids and poor access to livestock are problems. Further, in both the northeast and north west, the immunity levels as per sero-monitoring results are too low to guarantee protection. Kenya has to contain with two types of viruses in these two zones thereby demanding a specific approach. Gained experience shows that the approach should be regional across the national borders related to geographical, ecological, ethnic, and factors connected with livestock production systems, which all have to be taken into account while controlling transboundary diseases.

The fight against lineage II virus will concentrate in an extensive cluster stretching from the Ethiopian Ogaden along the Somali ecosystem south on both sides of the national border to Garissa district. It continues across Tana River to Tsavo and Taita Taveta and thereby become confluent with the Maasai pastoral area and the Serengeti. Operations will consist of search for possible foci of virus circulation, which would be controlled by immunosterilization. Continuous surveillance will be in place to detect any possible epidemic movement of the virus in the ecosystem.

In a similar manner, the lineage I rinderpest virus cluster includes parts of Ethiopia. Of great significance to Kenya is the rinderpest surveillance and control in Jonglei and eastern Equatoria in Sudan as well as PACE operations in Karamoja in eastern Uganda.

The work in these two areas will be carried out in close co-operation with PACE national programs of the neighboring countries. Cross-border working groups will be

established, as it will not be possible to reach the set goals without coordinated action within the ecosystem clusters.

The specific objectives are:

- Kenya to undertake the necessary steps for verifying the eradication of rinderpest in accordance with OIE pathway.
- Effective barriers that prevent the re-introduction of rinderpest from neighboring countries are maintained along strategic border areas.
- There is quarterly exchange of information with OAU/IBAR PACE Coordination Unit.
- Emergency preparedness plan for rinderpest is prepared.

3.1 Kenya to undertake the necessary steps for verifying the eradication of rinderpest in accordance with OIE pathway.

The specific objective will be to improve passive disease reporting, carry out active disease search, reporting, and definitive diagnosis; random clinical surveillance; and disease sero-surveillance in wildlife. The specific performance indicators are given in the appropriate sections below.

3.1.1 Improve the general/passive reporting system

Already the Epidemiology Unit is standardizing the reporting format such that it is compatible with the needs of GIS (see 1.2 reliable reporting system). Field staff (150) will be trained during the year on disease reporting. Public-private veterinary services interface will be increased and maintained as a basis for disease monitoring and surveillance system. Thus, private veterinarians and veterinary supervised CAHWs delivery system will be the baseline for information and rumour generation, especially in the ASAL. The DDSROs will on the behalf of DVOs compile and forward the standardized disease reporting formats to the Epidemiology Unit.

The overall target for PACE Kenya over the 4 years is: 80% of all the districts report within 30 days of end of month 10 months in a year. However it is targeted that by the end of the first year, up to 60% of the districts will have adopted the new reporting format and are reporting within 30 days from the end of the month.

3.1.2 Active disease reporting, outbreak investigation and diagnosis

PACE Kenya will set up a system capable of detecting, investigating, and laboratory diagnosing all stomatitis-enteritis cases, as this is one of the OIE requirements. All other disease agents that cause stomatitis-enteritis syndrome such as bovine virus diarrhea, malignant catarrhal fever, east coast fever are endemic in Kenya, and therefore all such outbreaks will need to be detected, investigated and definitively diagnosed. The performance indicators will be:

- The number of districts in the country using active disease search techniques (clinical, participatory, and questionnaire) with results reported within 60 days per total number of districts per year.
- The number of reports of stomatitis-enteritis received, recorded, and forwarded within 30 days per 1,000,000 heads of susceptible species annually
- The number of stomatitis-enteritis cases investigated within 7 days of first report per million heads of susceptible species annually.
- The number of clinical stomatitis-enteritis (3Ds) cases sampled within 7 days of detection per million heads of susceptible species annually.
- The number of cases examined by rinderpest antigen and serological detection techniques with preliminary results reported within 7 days of receipt of samples per million heads of susceptible species annually.
- For definitive diagnosis, the number of stomatitis-enteritis cases diagnosed definitively by laboratory methods at CVL Kabete and/or reference Laboratories within 30 days of receipt of samples per million susceptible species.

To achieve this, PACE Kenya will:

- Create awareness among the veterinary staff about the importance of maintaining stomatitis-enteritis (SE) case registers.
- All districts in the country will maintain SE registers.
- The Epidemiology Unit will prepare standard operating procedures for recording and follow-up of SE outbreaks.
- The Communication Unit will prepare and submit for broadcast radio messages to increase disease awareness.
- DVOs/DDSROs will endeavor to improve farmer-veterinary services interface through extension messages.
- The DVOs / DDSROs will on behalf of the DVS maintain a register of NGOs, private practitioners and CAHWs and involve them in SE outbreak reporting.
- The Communication Unit will prepare and distribute information leaflets on SE case reporting.
- Communication Unit will sensitize field staff at all levels on rinderpest lineage II virus, which might give inapparent clinical picture or might affect only wild cloven-hoofed ungulates
- The Epidemiology Unit will train up to 150 field staff on disease reporting.
- Communication staff will train 30 veterinary extension personnel on communication skills, who will in turn train 100 frontline extension workers on extension tools.
- Radio-calls and other quick means of communication will be used.
- Up to 4 staff of rinderpest diagnostic laboratory will be trained by a consultant on the adoption of differential diagnostic tests.
- The Coordination Unit will timely provide transport, equipment and funds for the investigation of all reported SE cases received.

As an incentive, the EU delegation in Kenya together with Treasury and OAU/IBAR will work out modalities for offering cash incentives to public and private practitioners and livestock owners who excel in disease reporting.

3.1.3 Random Surveys for Clinical Rinderpest

Random clinical survey based both on questionnaires and clinical inspection is one of the requirements of OIE pathway. Random sampling of herds will need to be carried out in year one of PACE Kenya to give 95% probability of detecting clinical disease, if clinical disease is present in 1% of herds in Zone I.

The performance indicator will be the number of primary sampling units sampled and results reported within 42 days from commencement.

To achieve this, the following will be undertaken:

- The Epidemiology Unit will prepare a sampling frame duly geo-referenced covering all the districts in Zone I in accordance with the recommended Guidelines to epidemiological surveillance for rinderpest.
- Tentatively and for purposes of budgeting, 300 primary sampling units (herds/villages) will be examined for clinical rinderpest in Zone I (according to recommended Guidelines to epidemiological surveillance for rinderpest).
- The epidemiology Unit will prepare /refine questionnaire forms for the survey.
- The Epidemiology Unit will train and supervise VIL teams that will carry out the random survey.
- The clinical disease search will entail the examination of all the randomly chosen herds for symptoms compatible with RP, filling in of questionnaire survey forms for the herd and participatory epidemiology. The latter two will in addition to detecting RP provide data on risk factors. Stomatitis-enteritis compatible clinical syndromes will be recorded, reported, and investigated as detailed under **3.1.2 Active Disease Reporting, Stomatitis-Enteritis Outbreak Investigation, and diagnosis.**

3.1.4 Wildlife Surveillance

Like in domestic animals, sero-surveillance, active disease search, and disease reporting will be carried out in wild animal populations. Thus, wildlife populations will be used as sentinels in RP eradication and verification of the OIE pathway. The main species of interest will be buffalo, lesser and greater kudu, eland, oryx, giraffe and warthog.

The African Wildlife Veterinary Project (AWVP) of OAU/IBAR has done similar work in key areas. These activities ended in mid 2000. KWS staff have competence to carry out ground darting of buffalo and other species and will therefore carry out this activity. The KWS veterinary unit is also well equipped to carry out this work supported by PACE with operational funds and consumables. The field activities of KWS in this regard will be integrated with those of the DVS, and as a team will consult with the Wildlife Epidemiology Component at OAU/IBAR on an on-going basis.

The first priority area will be Tana River district wildlife populations where mainly buffalo will be used as a sentinel line in the south for Northeastern province. In the North (Wajir, Mandera and Garissa) the warthog will be used having been confirmed that this species is useful for monitoring Lineage II virus. The second priority will be Tsavo and Meru ecosystems. Third will be Moyale, Marsabit, Sibiloi and Northern Turkana for Lineage I virus.

Six field trips will be executed in the year, each mission covering 2 weeks. At each of the sampling sites, a representative number of serum samples will be collected. The samples collected will be divided and distributed to Kabete, Regional Reference Laboratory, Muguga, the World Reference Laboratories Pirbright and CIRAD-EMVIT (the latter because of PPR). The protocol used for testing will be that agreed upon during the Expert Consultative Meeting held in Nairobi 11th-13th December 2000. A Wildlife Rinderpest Surveillance Steering Committee has already been formed that will respectively plan and discuss activities and results.

The performance indicator will be the number of serum samples collected and tested with results reported within 90 days of collection per 10,000 heads of susceptible species

3.2 Effective barriers that prevent re-introduction of rinderpest from neighboring countries are maintained along strategic border points

As described in 3 above under strategy for Zone II and III, Kenya is at high risk of infection from neighboring countries in the Northwest and Northeast. The fight against lineage II virus will concentrate in an extensive cluster stretching from the Ethiopian Ogaden along the Somali ecosystem south on both sides of the national border to Garissa district. It continues across Tana River to Tsavo and Taita Taveta and thereby become confluent with the Maasai pastoral area and the Serengeti. Operations will consist of search for possible foci of virus circulation, which would be controlled by immunosterilisation. In a similar manner, the lineage I rinderpest virus cluster includes parts of Ethiopia. Of great significance to Kenya is the rinderpest surveillance and control in Jonglei and eastern Equatoria in Sudan as well as PACE operations in Karamoja in eastern Uganda.

The target is to put in place mechanisms for continuous surveillance able to detect any possible epidemic movement of the virus in the ecosystem.

This will be achieved by:

- Disease surveillance officers will man the six key entry points (Elwak, Wajir Bor, Dif, Liboi, and Hulgo for Zone II and Lokichogio for zone III). The officers will carry out disease search on cattle entering Kenya and on transhumance cattle.
- Trained teams (field and VIL) will carry out purposive disease search in the sanitary cordon districts once a year.
- Vaccination may be carried out in these zones depending on the perceived risk from neighboring countries.

To facilitate these activities, the following will be implemented:

- Fifty (50) VIL and field officers will be trained on disease surveillance.
- Lodwar satellite laboratory will be used as a surveillance base for Zone III, and Garissa satellite laboratory will be equipped to serve Zone II.

The work in these two areas will be carried out in close co-operation with PACE national programs of the neighboring countries. Cross-border working groups will be

established, as it will not be possible to reach the set goals without coordinated action within the ecosystem clusters

3.3 Quarterly information exchange with OAU/IBAR PACE Coordination Unit

All the fore-going surveillance activities will be linked up to form a rinderpest surveillance network that will hence serve as an early warning system. Headquarter will communicate with all the districts as need be. Already all the districts and provinces in the remote parts of the country which coincidentally are also at a high risk for rinderpest are connected to Headquarter via VHF radios and are open daily. The same radio-calls will be used for inter-district, inter-province, and intra-province communication. At the same time, field staff in districts at international borders will be encouraged and supported to establish and maintain communication with their counterparts in the neighboring countries. For districts and provinces not on VHF radio, the quickest means of communication including electronic mail will be used.

The rinderpest surveillance network will expand and incorporate other epizootic diseases starting with CBPP in year 1 and thereby become a national network of animal diseases as described in 1.3. Through the network, PACE- Kenya will establish and maintain close links with the regional and neighboring National Programs through connection to electronic mail. Exchange of information will be encouraged between all PACE components and the common services available at OAU/IBAR (Epidemiology, Communication, Wildlife, and Economics). In particular, surveillance data on major transboundary diseases will be availed to the Regional PACE office on a quarterly basis.

3.4 Emergency preparedness plan

The essence of the strategy to be adopted is to enhance the national capacity for early warning and early reaction in case of renewed incursion of the rinderpest virus into Kenya or flaring up of an unnoticed endemic focus. The rinderpest emergency preparedness plan will be established using the FAO/EMPRES guidelines.

The initial step will be the appointment of a rinderpest emergency preparedness officer. The appointed officer will henceforth initiate the formation of the various committees and sub-committees. Throughout the year, the DVS Kenya is expected to have access to the Brussels based emergency funds in case of renewed incursion of rinderpest. Such funds will be used for operational purposes and would also cover disease investigation in case of wildlife epidemic, while vaccine would be bought by GOK from funds under GOK indirect funding to the project.

Other more specific activities will include:

- Maintaining of sanitary cordons of intensive surveillance.
- Establishment of border surveillance and movement control activities.

4. Coordinated control of CBPP

CBPP control will be based on the same ecosystem approach as the fight against rinderpest. The Government will pay for vaccination in endemic areas (purchase of

vaccine and operational costs), none of which will be charged to EDF. The annual target for vaccination is 2,000,000 H/C mainly in Northeastern, Southeastern parts of Kenya including Maasai land, and the Northwest. Cross-border operations in the north-east and in south with Tanzania in Maasai pastoral area will be considered. The same applies to West Pokot district at the Ugandan border. The test and slaughter method will be used in case of CBPP outbreak in non-endemic areas. PACE Kenya specific activities for year one are: the assessment of the dissemination and incidence of CBPP through a reliable monitoring and surveillance system, and definition and justification of the feasibility of appropriate control measures.

4.1 Assessment of the dissemination and incidence of CBPP

The target for PACE Kenya is to have the dissemination and incidence of CBPP available by the end of first year of the project. To achieve this, the following activities will be carried out:

- Teams carrying out rinderpest surveillance will conduct clinical and serological search for CBPP alongside.
- Field and slaughterhouse staff will carry out specific disease investigations and collect sera in slaughterhouses and at selected cattle markets and stock-routes.
- Integrate the existing laboratory network for CBPP into the broader based national network for animal diseases.
- The epidemiology unit will map disease occurrence in space and time as determined through surveillance and reporting activities.
- All stock-routes in the country that include trade, grazing patterns, transhumance, and migratory will be mapped.
- The epidemiology unit will send back to the field disease distribution mapping information for follow-up action.

To facilitate the above, PACE Kenya will

- Purchase twenty (20) Geographical Positioning Systems (GPS) (see **1.2** reliable reporting system).
- Equip the diagnostic laboratory to the extent necessary to perform reliable diagnosis.
- Engage a consultant to carry out short-term training on test reagent preparation and standardization
- Train meat inspector on CBPP reporting and lesion description.
- Timely provide transport, equipment and funds for the investigation of all reported.
- Provide training on abattoir surveillance.

4.2 Feasibility of appropriate control strategy

The control and eventual eradication of CBPP will be tackled at regional level. The activities needed here in the first year are outlined in **1.5**.

5. MONITORING AND EVALUATION

The National Management and Coordination Unit and the Project Monitoring Unit of the Department will monitor project activities in accordance with performance indicators described in the Global Plan.

The impact of livestock development in the country will be assessed at the national, private sector involvement, the farmer, and the consumer levels. The parameters for such assessments are indicated in the Logical Framework.

PART III

COST ESTIMATES FOR PACE KENYA

The cost estimate is detailed in the annex.

1. Support to Government Services

1.1 National coordination Unit

1.1.1 Personnel

11101 Technical assistant

The project will provide for a Technical assistant under the provision of this work program. The terms of reference for the recruitment are spelled out in the global plan. The Director of Veterinary Services will recruit the technical assistant early enough in the year. This provision covers personnel, travel, and vehicle running costs. The technical assistant may hire the services of a secretary or other from this provision. He/ She will be provided with a computer from PARC project and running costs under provision 1.1.3.

11102 Messenger

The project management will recruit an office messenger under the provision of this item to serve the National Coordination unit and the technical assistant.

11103 Motor vehicle mechanic

The project will recruit a motor vehicle mechanic under the provision of this item to repair and maintain project vehicles.

11104 Staff bonus

Project staff in the management unit (National coordinator, accountant, secretary, store-man /bookkeeper, and driver); communication unit (Communication officer and deputy); Epidemiology unit (epidemiologist, assistant epidemiologist, economist, and data entry clerks (2)); Diagnostics laboratory personnel; and field offices (emergency preparedness officer and border check-point officers (6)) will be paid bonuses from the provision of this item. The payment of these bonuses will be pegged on performance criteria to be worked out at the beginning of the project and to be approved by Treasury and European Union delegation in Kenya.

11105 Salaries

This provision is what the national coordinator, accountant, secretary, store-man /bookkeeper, and driver) will receive as personnel emoluments from their employer, the Government of Kenya.

1.1.2 Equipment

Provision is made for the purchase of fax machine, UPS, telephone head, office furniture, 1 vehicle and computer software. The equipment purchased under PARC will be used for the PACE project.

1.1.3 Running costs

Provision is made under this provision to meet the following costs of the National coordination Unit.

11301- In country travel. This provision will cater for per diems for Coordination Unit staff during supervision and monitoring of project activities.

11302- Fuel operating and vehicle repairs and maintenance costs. Will cater for supervision and monitoring of project activities, and the running of day to day activities at the headquarters. The National Coordinator, TA, and project accountant will be entitled to this budget line. The estimate is based on 37,000 km per year.

11303- this provision will cater for teas and snacks for the steering committee.

11304- Will cater for office running costs that includes stationery and photocopying.

11305- Telephone costs.

11306 – This will cater for per diems and transport for 4 border harmonization meetings to be attended by coordination & epidemiology unit, and field staff along strategic border positions.

11307- Travel and subsistence allowance for national coordination unit staff attending annual OAU/IBAR regional meetings.

11308- Travel and subsistence allowances for staff attending annual work plan workshop

11309- Consultant fee for training needs assessment.

11310- This will cater for any training not budgeted for but which may become necessary in the course of the year.

11311- This budget line will be used for the refurbishment of the accounts and TA's offices.

11312- This allocation will be used to insure all project equipment, including those inherited from PARC.

1.2 Communication Unit

1.2.1 Personnel

12101 This provision is what staff of the communication unit will receive as personnel emoluments from their employer, the Government of Kenya

1.2.2 Equipment

The project will purchase the following equipment under this provision: 1 vehicle, copy printer, color drums, guillotine, spiral binder, public address system, office furniture, and lap top computer. Other equipment bought and used under PARC will be used here.

1.2.3 Running costs

Provision is made under this provision to meet the following costs of the communication unit.

12301 In country travel. This will cater for per diems for the communication staff while in the field carrying out pre-testing of communication tools, holding sensitization /dialogue workshops, distributing communication tools and supervising extension workers.

12302 E-mail, tel. This will go towards contribution of payment of e-mail charges and telephone bills.

12304 Office supplies. This will be used to purchase office supplies needed to run the communication office and to purchase materials needed to produce print work.

12305 Vehicle fuels. This will be used to purchase fuels to travel to the field by the communication staff to pre-test communication tools, to hold sensitization workshops and to distribute communication tools. Repairs and maintenance will be used to repair and maintains the communication vehicle.

12306 Produce radio messages. This item will be used to pay for the costs of radio message production at the AIC studios and pre-testing by the AIC staff. Air radio messages. This will be used to pay for the cost of airing radio messages by KBC.

12307 Print. This will be used to pay for creation of communication messages, pay graphic designers, pay commercial printers and pay newspapers to print press releases.

12308 Training of trainers. This will be sued to pay for four communication staff to attend a training of trainers course.

12309 Communication skills. This will be used to pay to the communication officer and the deputy communication officer to attend a communication management course.

12310 Community sensitization. This will be used to convene community sensitization/dialogue workshops.

12311 Comm. Tools. This will be used to train at least 100 frontline staff on communication tools.

12312 M & Evaluation. This will be used to supervise extension work.

12313 Annual reg. Comm. W/shop. This will be used to pay for the communication officer to attend an annual regional comm./workshop.

12314 Train ext. workers. This will be used to train 30 extension workers on communication skills.

12315 Drama and cultural activities. This will be used to develop drama and cultural activities which will be used as an added communication strategy.

1.3 Epidemiology and Economics

1.3.1 Personnel

13101 Salaries: This provision is what staff of the epidemiology and economics unit will receive as personnel emoluments from their employer, the Government of Kenya. The project staff includes project epidemiologist, assistant epidemiologist, economist, 2 data entry clerks, RP diagnostician, CBPP diagnostician, serum banker, and 6 laboratory technologists.

13104 Computer technician/ data manager: Personnel costs for a computer technician/ data manager will be made from this item. The technician will be recruited by the project.

13105 Driver: Personnel emoluments for a driver to be recruited by the project will be met from this item.

13106 Messenger: Personnel costs of a messenger serving the epidemiology /economics and communications unit will be met from this item. The messenger will be recruited by the project.

1.3.2 Equipment

The project will purchase the following equipment: 1 vehicle, 2 desk pot computers, 1 lap top computer, 1 computer projector and screen, 20 GPS, GIS software and data bases, telephone and e-mail installation, office furniture and refurbishment.

1.3.3 Running costs

Provision is made under this provision to meet the following costs of the Epidemiology Unit

13301 In country travel: This provision will pay per diem to Epidemiology and Economics staff for field activities they will be responsible for under the headings: reliable reporting system; national network of animal disease surveillance; and economic assessment of diseases and disease control. This provision will be funded

from the Veterinary Service Development Fund (VSDF) of GOK. Key activities here include field testing of the reporting formats, outbreak investigations, baseline data gathering, and supervision and coordination of all national disease surveillance network activities.

13302. Fuel operating and vehicle repairs and maintenance costs to cater for 13301 above. Both EDF and VSDF will fund this budget line. The costing is based on average of 60,000 km per annum.

13303. This provision will meet the office running costs for the Epidemiology Unit.

13304. This is provision for telephone and E-mail running expenses.

13305. This is a provision will cater for the servicing of all the Project's electronic equipment.

13306. This provision will cater for teas and snacks for technical committees and also pay for any specialised technical services rendered, not exceeding 2 days.

13307. This provision will pay for travel and accommodation expenses for participants of two epidemiology planning workshops.

13308. A consultant will be engaged under this provision to train up to 4 Epidemiology unit/ surveillance officers on PRA techniques.

13309. A consultant will be engaged under this provision to train up to 4 Epidemiology unit staff on GIS techniques

13310. The provision will cater for travel and accommodation expenses for the project economist attending the regional economics workshop.

13311. The provision will cater for travel and accommodation expenses for KWS and DVS staff attending one wildlife disease monitoring workshop.

13312. This provision will cater for travel and accommodation for 2 officers (DVS and KWS) attending international annual wildlife disease monitoring workshop.

13313. Travel and accommodation expenses for disease reporting workshops (150 participants).

13314. Travel and accommodation expenses for disease surveillance workshops (50 participants).

1.4 Support to field offices

1.4.1 Personnel

14101 Staff salaries

This provision is what staff in key/ priority districts will receive as personnel emoluments from their employer, the Government of Kenya. The staff include district disease surveillance officers, district veterinary officers, emergency preparedness officer, border surveillance officers, and meat and stock-route inspectors.

1.4.2 Equipment

None.

1.4.3 Running costs

Provision is made under this provision to meet the following costs of field offices.

14301. This provision will cater for the per diems of field and VIL staff while supervising and coordinating disease reporting and surveillance activities, under the sub-headings 'reliable disease reporting system' and 'national network for animal disease surveillance'.

14302. This will meet the fuel and motor repairs for 14301 above.

14303. This will meet the office running costs for field offices under the sub-headings 'reliable disease reporting system' and 'national network for animal disease surveillance'

14304. This will meet the communication expenses (telephone and fax) for field offices (where there are no VHF radio-calls) under the sub-headings 'reliable disease reporting system' and 'national network for animal disease surveillance'

2 Privatization and public/ private sector linkage

2.1 Stakeholder consultation workshops and legal review

2.1.1 Personnel

Nil

2.1.2 Equipment

Nil

2.1.3 Running costs

21301. This will meet the cost of engaging a lawyer to carry out legal review and subsidiary legislation.

21302. This will cover all expenses to be incurred during review workshops on policy.

21303. This will cover all expenses to incurred during the creation of awareness workshops.

2.2 Engage private veterinarians, CAHWs and others in disease surveillance

2.2.1 Personnel

22101. Livestock-owners and other stakeholders who excel in disease reporting will be paid from this item. The remuneration system will be worked out early in the first year.

2.2.2 Equipment

None.

2.2.3 Running costs

22301. This provision will meet the per diems and travel costs of CAHWs, private practitioners and NGO staff in the ASAL areas who attend DVO convened meetings on disease reporting and surveillance.

22302. This will cover the DVOs' costs in the ASAL region during the supervision of CAHWs, private practitioners and NGO staff on disease reporting and surveillance.

farmer/stakeholder participation in animal health extension delivery and supervision of private sector participation.

3. Rinderpest eradication

3.1 Personnel

3101. Salaries. See 14101 above.

3.2 Equipment

The project will purchase the following equipment under this item provision: refrigerators, sampling equipment, laboratory equipment, 2 deep freezers, 4 vehicles, 9 motorbikes, rehabilitate 13 vehicles and equipment for Garissa laboratory. Equipment bought under PARC project will be utilized here.

The 4 new vehicles will be distributed to the 4 most needy districts in the sanitary cordon, while the 13 rehabilitated ones will be distributed among the other districts in the sanitary cordon and VILS. The nine motorbikes will be used in districts bordering with sanitary cordon by field extension officers for disease search and reporting. Refrigerators will be distributed among the most deserving districts in the sanitary cordon and VILs, while deep freezers will be used at Kabete for serum banking. Sampling equipment will be used both during purposive disease search and outbreak investigations.

3.3 Running costs

3301. This item will cover the per diems for field officers carrying out active disease search and VIL personnel carrying out purposive disease search in the sanitary cordon and any other areas outside the sanitary cordon as dictated by events. The

disease search will also include CBPP. This item will also pay per diems in the event of vaccination in the sanitary cordon.

3302. This will cater for fuel and repairs for 3301 above.

3303. This will cater for diagnostic laboratory consumables.

3304. Will cater for technical subcommittees' teas and snacks.

3305. The cost of engaging a consultant to train rinderpest diagnosticians on the adoption of differential diagnosis.

3306. This will cater for the rinderpest diagnostic laboratory's tele-communications.

3307. This provision will cover the costs of carrying out a random clinical survey for rinderpest and combining CBPP.

3308. This provision will cater for any unplanned for training that is found to be necessary in the first year following a training needs assessment.

3309. This provision will cater for transport and per diem for KWS personnel who will be carrying out disease surveillance in wildlife.

4 CBPP and other epizootic diseases assessment and control

4.1 Personnel

4101. Staff salaries. See 14101 above.

4.2 Equipment

None

4.3 Running costs

4301. This provision will cater for per diems for personnel carryin out stock-route, market and slaughter house inspection for CBPP.

4302. Transport fuels and repairs for 4301 above.

4303. Cost of training meat inspectors on CBPP lesion description and reporting.

4304. This will cater for CBPP laboratory consumables.

4305. Cost of engaging a consultant to carry out antigen standardization.

PART IV

IMPLEMENTATION PROCEDURES

The implementing agency is the Department of Veterinary Services, Ministry of Agriculture and Rural Development, Kenya. The National PACE Co-ordination Unit based at Kabete and supporting units (Departmental organogramme is annexed) will implement the project on behalf of the Director of Veterinary Services, and will be supported as needed by the Nairobi based PACE co-ordination Unit through its sub-regional co-ordinator.

The implementation procedures are described in detail in the PACE Manual of Procedures. A technical and steering committee that draws membership from the Department of Veterinary Services, OAU/IBAR, National authorising office, and EU will be in place to oversee the project's activities. The committee will meet four times a year. The programme will cover the whole country but with emphasis on defined priority districts.

PACE-KENYA – LOGICAL FRAMEWORK – YEAR 1

Intervention Logic	Objective Verifiable Indicators	Means of Verification	Important Assumptions
Result 1: Strengthened national disease control capacity			
1.1. National animal disease surveillance capacities are developed and epidemiological knowledge and skills improved.	1.1.1. During the year, the following number of persons are trained in the respective disciplines: <ul style="list-style-type: none"> ▪ Training of trainers – 4 ▪ Communication skills – 2 ▪ CFT antigen standardisation for CBPP – 4 ▪ Adoption of Differential diagnosis – 4 ▪ GIS techniques – 4 ▪ PRA techniques – 5 1.1.2 Training needs for the department carried out by end of year	1.1.1. Names of officers who attended training courses 1.1.2. Consultancy report	1.1.1. Majority trained staff continue work for the department of vet. Services.
1.2. Reliable reporting system feed back for animal health developed and improved	1.2. By the end of year, the new disease reporting format is adopted by up to 60% of the districts and are reporting within 30 days from the end of month.	1.2. Reports of epidemiology unit	1.2. The current chain of command remains in force
1.3. National network of animal disease surveillance is developed and made functional	1.3. Network with data base is functional by the end of year	1.3. Report of epidemiology unit and access to epidemiology unit	1.3. Network is kept functional, its running costs met.
1.4. Feasibility of appropriate control measures are defined and justified.	1.4.1. Eradication strategy for RP in zones II & III reviewed by end of year. 1.4.2. Draft control strategy for CBPP prepared by the end of year.	1.4. DVS strategy documents	1.4. There is sufficient surveillance data on CBPP.

<p>1.5. Communication and sensitisation procedures are developed</p>	<p>1.5.1 The following communication tools are produced and disseminated: Two press releases in newspapers 500 flipcharts, 50,000 posters, 30,000 brochures, 30,000 booklets, 3 swahili spots, 2 spots in 6 vernaculars, 7 magazines, and 5 inserts.</p> <p>1.5.2 One sensitisation workshop each for 5 districts and two dialogue workshops for 2 districts. Drama and cultural activities performed in the two dialogue workshops.</p> <p>1.5.3. During the period, the following number of people are trained:</p> <ul style="list-style-type: none"> ▪ Effective communication management – 2 ▪ Training of trainers – 4 ▪ Train extension workers – 30 ▪ Communication tools – 100 	<p>1.5.1 Communication unit library.</p> <p>1.5.2 Number of communities sensitized</p> <p>1.5.3 Names of officers who attended training courses</p>	<p>1.5.1. Communities and stakeholders are receptive to communication messages and are willing to co-operate</p> <p>1.5.3. Trained personnel continue to work for the department of Veterinary Services.</p>
<p>1.6. Reliable emergency preparedness program for priority diseases are ready for activation.</p>	<p>1.6. Emergency preparedness plan for rinderpest</p>	<p>1.6. Date of submission of the plan to OAU/IBAR</p>	<p>1.6. Emergency funds will be made available</p>
<p>1.7. Private sector participation in disease control/surveillance promoted</p>	<p>1.7.1. The number of private sector animal health workers reporting disease events to DVS.</p> <p>1.7.2. DVO convened meetings for CAHWS & NGOs in high-risk marginal areas.</p>	<p>1.7. DVO monthly and supervision reports</p>	<p>1.7. Private sector animal health workers receive sensitisation and awareness messages.</p>
<p>1.8. Co-ordination unit is</p>	<p>1.8. Throughout the year, all project activities</p>	<p>1.8. Quarterly and</p>	<p>1.8. The co-</p>

assisted in management and operation of the program	are timely implemented and monitored.	monitoring and Evaluation reports	ordination unit gets the necessary support from within the Department of Veterinary Services.
Result 2: Greater Privatisation and Private/Public Linkage			
2.1 Stakeholder consultation/dialogue promoted	2.1.1 The number of awareness campaigns and stakeholders consultative workshops on legal review 2.1.2 Legal review construct	2.1. Policy statements by DVS and KVB	2.1. The GoK continues to promote privatisation process.
2.2. Private Vets, CAHWs and others are engaged in disease surveillance and control	2.2. See 1.7 above	2.2. See 1.7 above	2.2. See 1.7 above
2.3. Initiatives to obtain participation of livestock owners in disease surveillance and reporting supported	2.3. The number of sensitisation workshops, seminars, field days and community dialogue conducted by communication unit	2.3. Places and names of officers who attended	2.3. Livestock owning communities are receptive to sensitisation & awareness messages
Result 3: Eradication of Rinderpest			
3.1. The necessary steps to verify the eradication of RP in accordance with OIE pathway are undertaken	3.1 Active disease search and reporting outbreak investigation, active disease surveillance, random wildlife sero-surveillance and lab. Diagnosis carried out in project year 1	3.1 Reports to OIE	3.1. GoK's willingness to adhere to OIE pathway guidelines
3.2 Effective barriers that prevent re-introduction of RP from neighboring countries are maintained along strategic	3.2 Border check points surveillance and purposive disease search in sanitary cordon	3.2 Surveillance reports	3.2. All the neighboring countries remain committed in the eradication of

border areas			Rinderpest
3.3 Quarterly information exchange with OAU/IBAR co-ordination unit	3.3 Rinderpest status reports to OAU/IBAR	3,3 Sample records and survey reports	3.3 Establishment of electronic network
3.4 Emergency preparedness plan for rinderpest prepared	3.4 See 1.6	3.4 See 1.6	3.4 See 1.6
Result 4: Co-ordinated Control of Epizootic Diseases			
4.1 Dissemination and incidence of CBPP and other major epizootics through reliable monitoring and surveillance system	4.1 Dissemination and incidence of CBPP available by end of year 1	4.1 GIS documentation in Epidemiology Unit	4.1 Network is kept functional
4.2 Feasibility of appropriate control measures are defined and justified	4.2 Draft control strategy for CBPP prepared by the end of year 1	4.2 DVS strategy documents	4.2 There is sufficient surveillance data on CBPP

ACTIVITY TIME CHART

RESULT/ACTIVITY/SUB-ACTIVITY	Responsible officer	1 ST Q	2 ND Q	3 RD Q	4 TH Q
1. Strengthened national disease control capacity					
1.1 Training					
Training of trainers	Comm. Officer		X		
Communication skills	Comm. Officer		X		
CFT antigen standardization for CBPP	CBPP diagnostician		X		
Differential diagnostic tests for rinderpest	Rinderpest diagnostician		X		
PRA techniques	Epidemiologist		X		
Disease reporting	Epidemiologist	X	X	X	X
Disease surveillance	Epidemiologist	X	X	X	X
Engage a consultancy mission on training needs assessment	N/Coordinator	X			
1.2 Reporting and Epidemiological Services					
Field staff submit monthly reports	DVOs and Epidemiologist	X	X	X	X
Field & VIL staff carry out continuous surveillance	DVOs, VILs & Epidemiologist	X	X	X	X
KWS sero-survey disease in wildlife	KWS and Epidemiologist		X	X	X
Laboratory personnel provide diagnostic services	Diagnosticians for priority diseases	X	X	X	X
Design and implement disease reporting system	Epidemiologist and DVOs	X	X	X	X
Design & implement disease surveillance system	Epidemiologist, DVOs & VILs	X	X	X	X
Enter data, manage, analyze & map diseases	Epidemiologist	X	X	X	X
Interpret and disseminate data results	Epidemiologist	X	X	X	X
Expand the current rinderpest network into NSES	Epidemiologist & RP Lab.	X	X	X	X
Report to OAU/IBAR and other countries in the region via PACE network	Epidemiologist &	X	X	X	X

	N/Coordinator				
Attend biannual Epidemiology workshops	Epidemiologist		?		?
Attend wildlife disease monitoring workshop	KWS and Epidemiologist		?		
Procure equipment	N/Coordinator, TA and Epidemiologist	X			
Employ computer technician, driver & messenger	N/Coordinator and Epidemiologist	X			
1.3 Economic assessment of diseases and disease control					
Asses data requirements	Economist	X	X	X	X
Attend annual regional animal health economic workshop	Economist			?	
Carry out baseline survey	Economist				X
1.4 Strategy development / formulation					
Sensitize community on current disease control strategy	Communication officer	X	X		
Review RP strategy in zone II & III				X	
Review CBPP control strategy					X
Attend annual regional OAU/IBAR PACE meeting	N/Coordinator and Epidemiologist		?		
1.5 Other institutional strengthening					
See 2.1					
1.6 Communication					
Carry out pre-launch activities	Comm. Officer	X			
Launch communication material	Comm. Officer		X	X	X
Carry out post communication evaluation	Comm. Officer		X	X	X
Attend annual regional communication w/shop	Comm. Officer		?		
Procure equipment	N/Coordinator, TA and Comm. Officer	X			

1.7 Management and Coordination					
Implement the project		X	X	X	X
Oversee the administration and finance of project	N/Coordinator & TA	X	X	X	X
Monitor project activities	N/Coordinator & TA	X	X	X	X
Convene steering committee meetings	N/Coordinator	X	X	X	X
Convene annual work planning workshop	N/Coordinator				X
Coordinate the national program activities within the sub-region and region	N/Coordinator	X	X	X	X
Submit quarterly reports to OAU/IBAR and OIE	N/Coordinator	X	X	X	X
Engage a technical assistant	DVS, CVFO and CVIO	X			
Engage short-term consultancies in financial analysis, management, and organizational development	N/Coordinator		X		
Employ mechanic and office messenger	N/ Coordinator	X			
Purchase equipment	N/Coordinator	X			
Bonus payment criteria determined	EU, Treasury & OAU/IBAR		X		
2 Greater privatization and private-public linkage					
2.1 Promote stakeholder consultation/dialogue					
Conduct awareness campaign	KVB, DVS, KVA & KALT	X	X	X	X
Carry out subsidiary legislation on rules	KVB & DVS	X	X	X	X
Carry out policy framework review	KVB & DVS	X	X	X	X
Carry out legal framework review	KVB & DVS	X	X	X	X
2.2 Engage private veterinarians, CAHWs and others in disease control					
Sensitize private vets and others on disease surveillance and reporting	Comm. Officer, DDSOs , DVOs and Epidemiologist	X	X	X	X
Promote active participation in surveillance, sample collection, disease	DVS, CVFO	X	X	X	X

reporting and control in the ASAL	DVOs, DDSOs				
Link CAHWS in ASALs to private vets/NGOs and to DVO	DVOs & DDSOs	X	X	X	X
DVO meets and coaches CAHWS	DVOs & DDSOs	X	X	X	X
2.3 Support initiatives to obtain participation of livestock owners in disease surveillance					
Sensitize livestock owners	Comm. Officer	X	X	X	X
Hold community dialogue workshops	Comm. Officer	X	X	X	X
Work out modalities for remunerating livestock owners and others who excel in reporting	Steering committee		X		
2.4 Promote & encourage development & strengthening of appropriate mechanisms for the distribution of veterinary medicines					
See 2.1					
3. Eradication of Rinderpest					
Procure equipment	N/Coordinator and TA	X			
Explore appropriate strategies for Zone II & III	DVS and steering committee			X	
Submit general surveillance monthly reports	DDSO and Epidemiologist	X	X	X	X
Report stomatitis-enteritis syndromes	DDSOs	X	X	X	X
Investigate reported stomatitis-enteritis events	DDSOs, VILs & Epidemiologist	X	X	X	X
Carry out disease surveillance in wildlife	KWS and Epidemiologist		X	X	X
Prepare sampling frame for clinical random surveys	Epidemiologist		X	X	
Carry out clinical random survey in Zone III	Epidemiologist and VILs				X
Strengthen the rinderpest surveillance network	Epidemiologist, RP lab, DDSOs and VILs	X	X	X	X
Adopt differential diagnostic tests for rinderpest	RP Lab.		X		
Build the National Surveillance and	RP Lab and	X	X	X	X

Epidemiological System (NSES)	Epidemiologist				
Link Kenys's NSES to others within the region and OAU/IBAR	Epidemiologist		X	X	X
Implement and adhere to OIE steps	DVS, CVFO & CVIO	X	X	X	X
Appoint an emergency preparedness officer (EPO)	DVS	X			
Form various Emergency preparedness committees and sub-committees	DVS, CVFO, CVIO and EPO	X			
Have immediate access to the OAU/IBAR based emergency funds	DVS	X	X	X	X
Attend border harmonization meetings	N/Coordinator, PDVS, DVO & Epidemiologist		X	X	X
4. Coordinated control of CBPP and other priority diseases					
4.1 CBPP surveillance					
Carry out clinical and serological search for CBPP alongside rinderpest	Epidemiologist & VILs	X	X	X	X
Carry out CBPP disease search in slaughterhouses, stock-routes and markets	Meat and stock-route inspectors	X	X	X	X
Engage consultant for training on CBPP test reagent preparation and standardization	CBPP diagnostician		X		
Integrate current laboratory CBPP network into the broader based NSES	CBPP Lab and Epidemiologist	X	X	X	X
Equip the diagnostic laboratory	National Coordinator and CBPP diagnostician	X			
Carry out CBPP vaccination in endemic areas	CVFO & DVOs		X		
4.2 Surveillance to support other diseases					
Create serum bank	Diagnostic labs	X	X	X	X
Include wildlife sera in the serum bank	Diagnostic labs & KWS	X	X	X	X
4.3 Surveillance for priority disease					
Develop and implement a standardized GIS compatible reporting format	Epidemiologist & DVOs	X	X	X	X
Develop and maintain a public-private veterinary service interface as basis for data generation	DVOs	X	X	X	X
Private vets and CAHWs become baseline for information and rumor generation	DVOs	X	X	X	X

Field staff receive timely feedback from Epidemiology unit	Epidemiologist	X	X	X	X
Disease events are promptly reported by all stakeholders	All livestock stakeholders	X	X	X	X
4.4 Disease distribution mapping					
Map disease occurrence	Epidemiologist	X	X	X	X
Purchase GPS	N/Coordinator, TA & Epidemiologist	X			
Map stock-routes for trade, grazing, transhumance, and migratory	Epidemiologist	X	X	X	X
Send back to the field disease distribution information for follow-up	Epidemiologist	X	X	X	X
4.5 Strategy development					
See 1.4					

ANNUAL PROJECT COST ESTIMATE

A/C	Headings and expenses line	Units	Qty	Unit Cost Ksh	YEAR 1	
					EDF	GOK
1	Support to Government Services					
1.1	National Co-ordination Unit					
1.1.1	Personnel					
	11101 – Technical assistant	M/Yr	1	8,400,000	8,400,000	
	11102 – Messenger	M/Yr	1	72,000	72,000	
	11103 - Mechanic	M/Yr	1	144,000	144,000	
	11104 – Staff bonus	Year	1	2,218,880	2,218,880	
	11105 – Salaries	Year	1	1,080,000		1,080,000
					10,834,880	1,080,000
1.1.2	Equipment					
	11201 – UPS	Unit	3	13,000	39,000	
	11202 – Fax Machine	Unit	1	12,000	12,000	
	11203 – Telephone	Unit	1	5,000	5,000	
	11204 – Chair	Unit	3	12,000	36,000	
	11205 – Desk	Unit	3	15,000	45,000	
	11206 – Software for Acc. & M & E	Unit	1	350,000	350,000	
	11207 – Purchase of Vehicles	Unit	1	2,500,000	2,500,000	
					2,987,000	
1.1.3	Running Costs		1			
	11301 – In country travel	Year	1	600,000	600,000	
	11302- Fuel operating costs	Year	1	330,000	330,000	
	- Repairs and maintenance	Year	1	237,125	150,000	
	11303 – Committee meetings	Year	1	12,000	12,000	
	11304 – Office costs	Year	1	240,000	240,000	
	11305 – Telephone	Year	1	240,000	240,000	
	11306 – Border harmonisation meetings	Year	1	664,500	663,000	
	11307 – OAU/IBAR Regional meetings	Year	1	406,000	280,000	
	11308 – Annual workplan workshop	Year	1	112,500	112,500	
	11309 – Training needs assessment	Year	1	750,000	750,000	
	11310 – Other training	Year	1	50,000	50,000	
	11311 – Renovation of offices	Year	1	200,000	200,000	
	11312 – Insurance for project equipment	Year	1	250,000	250,000	
					3,877,500	
	Subtotal National Co-ordination Unit				17,699,380	1,080,000
1.2	Communication Unit					
1.2.1	Personnel					
	12102 – Salaries	Year	1	540,000		540,000
						540,000
1.2.2	Equipment					
	12201 – Copy printer	Unit	1	500,000	500,000	
	12202 – Colour drum	Unit	2	80,000	160,000	
	12203 – Guillotine	Unit	1	30,700	30,700	
	12204 – Spiral binder	Unit	1	45,800	45,800	
	12205 – Public address system	Unit	1	20,000	20,000	
	12206 – Desk	Unit	1	15,000	15,000	
	12207 – Chair	Unit	1	12,000	12,000	
	12208 – Vehicle	Unit	1	2,500,000	2,500,000	
	12209 – Computer (Laptop)	Unit	1	200,000	200,000	
					3,483,500	
1.2.3	Running costs					
	12301 – In country travel	Year	1	152,500	152,500	
	12302 – Comm (Tel, e-mail)	Year	1	120,000	120,000	
	12303 – Office supplies	Year	1	120,000	120,000	
	12304 – Vehicle - Fuels	Year	1	435,000	435,000	
	Repairs and maintenance	Year	1	150,000	150,000	

	12305 - Produce radio messages	Year	1	680,000	680,000	
	- Air radio messages	Year	1	1,500,000	1,500,000	
	12306 – Print - Prod./ print meses	Year	1	2,022,000	2,022,000	
	- Release press items	Year	1	200,000	200,000	
	12307 – Training of trainers	Year	1	136,000	136,000	
	12308 – Training in Communication skills	Year	1	66,000	66,000	
	12309 – Community sensitisation	Year	1	750,000	750,000	
	12310 – Comm. tools for frontline staff	Year	1	220,500	220,500	
	12311 – M & evaluation of ext. training	Year	1	150,000	150,000	
	12312 – Annual regional comm w/shop	Year	1	280,000	280,000	
	12313 - Training extension workers	Year	1	300,000	300,000	
	12314 - Drama and cultural activities	Year	1	100,000	100,000	
					7,382,000	
	Subtotal Communication Unit				10,865,500	540,000
1.3	Epidemiology and Economics					
1.3.1	Personnel					
	13101 – Staff salaries	Year	1	1,080,000		1,080,000
	13104 – Computer technician	M/Yr	1	300,000	300,000	
	13105 – Driver	M/Yr	1	144,000	144,000	
	13106 – Messenger	M/Yr	1	72,000	72,000	
					516,000	1,080,000
1.3.2	Equipment					
	13201 – Vehicle	Unit	1	2,500,000	2,500,000	
	13202 – Desk Top Computer	Unit	3	200,000	400,000	
	13203 – Lap Top Computer	Unit	1	200,000	200,000	
	13204 – Computer project and screen	Unit	1	750,000	750,000	
	13205 – GPS	Unit	20	15,000	300,000	
	13206 – GIS software	Unit	1	525,200	525,200	
	13207 – E-mail installation/ Inter-netting	Unit	1	50,000	50,000	
	13208 – Tel Instal & accessories	Unit	1	25,000	25,000	
	13209 – Software and databases	Unit	12	25,000	100,000	
	132010 – Chair	Unit	3	12,000	36,000	
	13211 – Desk	Unit	3	15,000	45,000	
	13212 – Office Renovation	Year	1	200,000	200,000	
					5,131,200	
1.3.3	Running costs					
	13301 – In country travel	Year	1	1,080,000		1,080,000
	13302 – Transport fuels	Year	1	920,000		920,000
	- Vehicle repairs	Year	1	470,000	470,000	
	13303 – Office stationery	Year	1	700,000		700,000
	13304 – Comm (Tel & E-mail)	Year	1	300,000		300,000
	13305 – Servicing of equipment	Year	1	100,000	100,000	
	13306 – Committee running	Year	1	150,000	150,000	
	13307 – Bi-annual epid. Workshop	Year	1	280,000	280,000	
	13308 – PRA techniques	Year	1	250,000	250,000	
	13309 – GIS techniques & Consul.	Year	1	750,000	750,000	
	13310 – Regional economic w/shops	Year	1	280,000	280,000	
	13311 – Wildlife dse mon. w/shop	Year	1	87,500	87,500	
	13312 - International Wildlife meetings	Year	1	250,000	250,000	
	13313 – Disease reporting w/shops	Year	1	1,845,000	1,845,000	
	13314- Disease surveillance w/shops	Year	1	945,000	945,000	
					5,407,500	3,000,000
	Sub total Epidemiology Unit				11,054,700	4,080,000

1.4	Support to Field Offices					
1.4.1	Personnel					
	14101 – Staff salaries	Year	1	5,400,000		5,400,000
						5,400,000
1.4.2	Equipment					
	Nil					
1.4.3	Running costs					
	14301 – In country travel	Year	1	1,250,000	1,250,000	
	14302 – Transport fuels	Year	1	940,000	940,000	
	- Transport repairs	Year	1	250,000	250,000	
	14303 – Office costs	Year	1	936,000	936,000	
	14304 – Comm. (Tel, Fax)(+-30 districts)	Year	1	1,090,000	1,090,000	
					4,466,000	
	Sub-total Support to Field Offices				4,466,000	5,400,000
	Total for Support to Gov. Services				44,085,580	11,100,000
2	Privatization & Pub/Private Linkage					
2.1	S/holder consul. W/shops & legal review					
2.1.1	Personnel					
	Nil					
2.1.2	Equipment					
	Nil					
2.1.3	Running costs					
	21301 – Legal review & subsidiary leg.	Year	1	1,500,000	1,500,000	
	21302 – Policy review	Year	1	600,000	600,000	
	21303 – Create awareness	Year	1	750,000	750,000	
					2,850,000	
	S/total S/holder Consult. & legal review				2,850,000	
2.2	Private Vets & others in Dse Surv.					
2.2.1	Personnel					
	22101 – Bonuses for Dse reporting	Year	1	200,000	200,000	
					200,000	
2.2.2	Equipment					
	Nil					
2.2.3	Running costs					
	22301 – Farmer/S/holder participation	Year	1	1,500,000	1,500,000	
	22302 – Supervise Private Sector	Year	1	600,000	600,000	
					2,100,000	
	S/total Private Vets & others D'se Surv.				2,300,000	
	S/total Dev. & strength. vet. Med.					
	Total Priv and Public/Private Sector				5,150,000	
3	Rinderpest Eradication					
3.1	Personnel					
	3101 – Staff salaries (See 14101)					
3.2	Equipment					
	3201 – Refrigeration	Year	1	1,525,000	1,525,000	
	3202 – Sampling equipment	Year	1	750,000	750,000	
	3203 – Laboratory equipment	Year	1	500,000	500,000	
	3204 – D/ freezers for serum bank	Unit	2	160,000	320,000	
	3205 – Purchase vehicles	Unit	4	2,500,000	10,000,000	
	3206 – Rehabilitation of Vehicles	Unit	13	300,000	3,000,000	

	3207- Equip Garissa lab	unit	1	0	0	
	3208 - Purchase of motorbikes (for 14 districts	Unit	14	300,000	4,200,000	
					20,295,000	
3.3	Running costs					
	3301 – In country travel	Year	1	6,572,500	6,572,500	
	3302 – Transport fuels	Year	1	3,035,000	3,035,000	
	- Transport repairs	Year	1	2,000,000	2,000,000	
	3303 – Consumables	Year	1	2,000,000	2,000,000	
	3304 – Committee running costs	Year	1	250,000	250,000	
	3305 – Adpt Diff. R/pest techniques	Year	1	350,000	350,000	
	3306 – Comm. (Tel &Fax)	Year	1	100,000	100,000	
	3307 - Random Dse Survey					
	Per diem	Year	1	2,000,000	2,000,000	
	Transport Fuels	Year	1	785,000	785,000	
	Transport repairs	Year	1	400,000	400,000	
	3308 – Other training	Year	1	100,000	100,000	
	3309 - Wildlife disease surveillance	Year	1	2,700,000	2,700,000	
					20,292,500	
	Sub-total Rinderpest				40,587,500	
4	CBPP & other Epizootics asse & cont					
4.1	Personnel					
	4101 – Staff salaries (See 14101)					
4.2	Running costs					
	4301 – In country travel	Year	1	700,000	700,000	
	4302 – Transport fuels	Year	1	600,000	600,000	
	- Transport repairs	Year	1	400,000	400,000	
	4303 – Abattoir surveillance Training	Year	1	500,000	500,000	
	4304 – Lab. Consumables	Year	1	500,000	500,000	
	4305 – Antigen Std training	Year	1	200,000	200,000	
					2,900,000	
	Sub-total CBPP & Other Epizootic				2,900,000	
	TOTAL				92,723,080	11,100,000
	10% CONTINGENCY				9,272,308	
	GRAND TOTAL				101,995,388	11,100,000

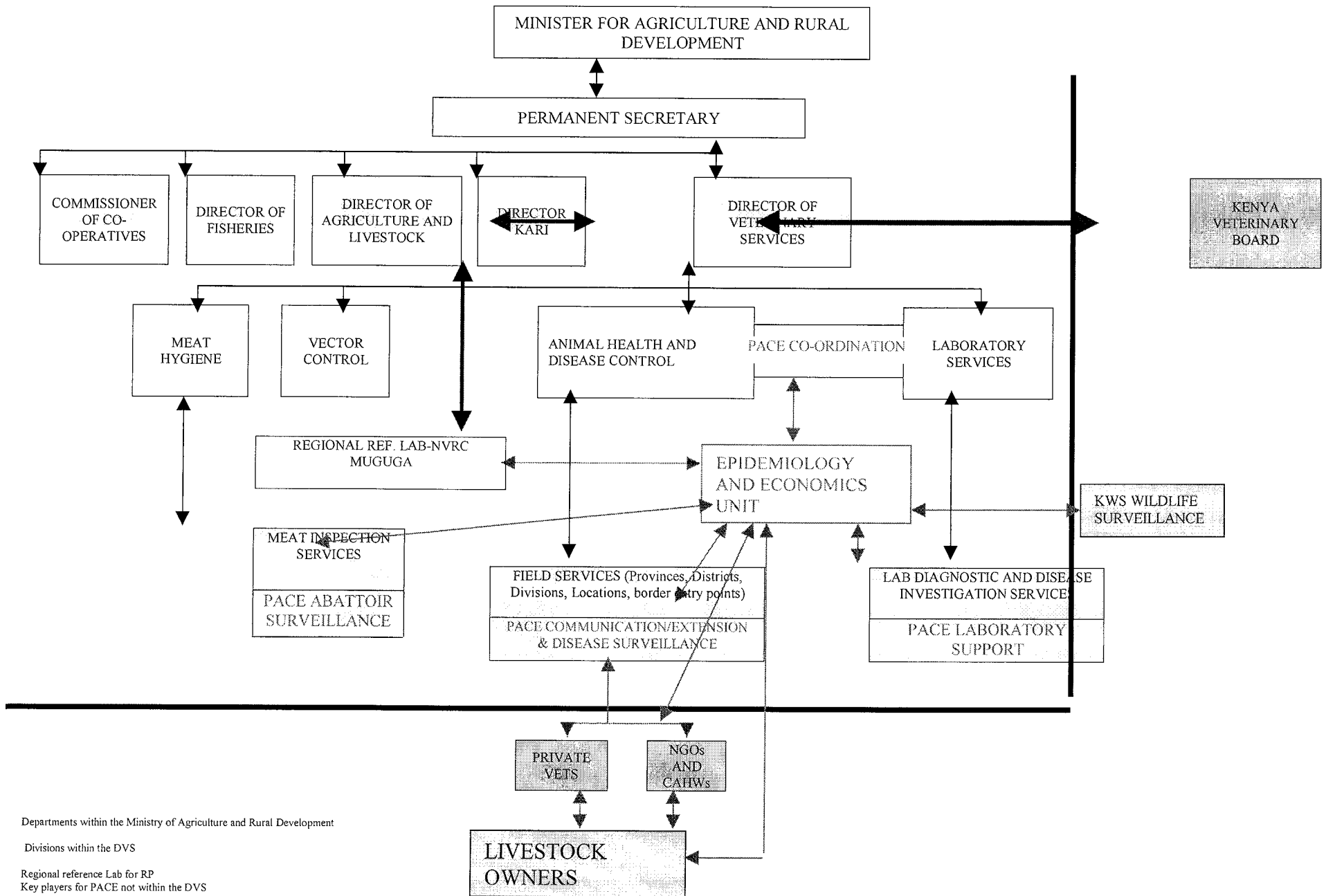


Figure 1:

KENYA: RINDERPEST ZONATION

