Draft Report

FINAL EVALUATION MISSION – ERITREA NATIONAL PACE PROJECT



Dr Walter MASIGA
Dr Philippe DURAND

November 2006

Table of content

Executive Summary 3
I. Context of PACE Implementation in Eritrea 5
II. Methodology 7
III. Results of the Evaluation 7
III.1. Progress made on Implementation of the Epidemio-Surveillance System 7
III.1.1 Organisation and Functioning of the Epidemio-Surveillance Network 7
III.1.2 Flow of Sanitary Information and Data Management 9
III.1.3 Valorisation of sanitary data and external reporting 9
III.1.4 Central Veterinary Laboratory 10
III.1.5 Establishment of Performance Indicators 10
III.1.6 Sustainability of the Epidemio-Surveillance Network 10
III.2. Progress on the OIE Pathway for Rinderpest Eradication 10
III.3. Strategies Elaborated and Put Into Practice to Control other Priority Animal Diseases 11
III.4. Improvement of the Delivery of Veterinary Services and Drugs to Livestock Owners 11
III.5: Administrative and Financial Management Procedures Applied 13
III.6: Visibility 13
III.7: Status of Implementation of Recommendations Formulated at PACE Meetings and Workshops 13
IV Review of Logical framework: 14
IV.1Review of Initial Log Frame 14
IV.2: Review of the Log Frame for Extension Period 15
V: Update on the Progress Rating of the Programme 18
V.1 Technical Evaluation of the Operation of the ESS in Eritrea based on 67 Monitoring Criteria 18
V.2 PACE Progress Rating in Eritrea Based on 37 Monitoring Criteria 18
VI Conclusions of the Mission: 19
VI.1: Epidemiology Surveillance Network 19
VI.2: Rinderpest Eradication 20
VI.3: Strategy for the Control of CBPP and other Priority Epizootic Diseases 20
VI.4: Organisation of Veterinary Services including Privatisation 20
VI.5: Level of Integration of PACE Activities within the National Veterinary Services 20
VI.6: Administrative and Financial Management Procedures Applied 21
VI.7: General Conclusion 21
VII.8: Recommendations 21
Annexes 23
Annex 1: Terms of Reference for the Mission 23
Annex 2: Itinerary of the Mission 27
Annex 3: List of persons met during the Mission 28
Annex 4: Details of the level of implementation of activities (extension phase) 29
Annex 5: Scoring of Epidemiosurveillance Activities Criteria 31
Annex 6: Monitoring of performance indicators in PACE Eritrea 34
Annex 7: list of acronyms 36
Annex 8: List of documents consulted 37

Executive Summary

Une mission indépendante s'est rendue en Erythrée du 23 au 29 novembre 2006, pour évaluer les performances de la composante nationale du programme PACE - Erythrée. La mission a été reçue à Asmara par le Ministre de l'agriculture, le coordinateur du PACE et toute son équipe.
La mission a consulté les documents disponibles, conduit des interviews avec les différents acteurs et effectué des visites sur le terrain.

La mission a pu constater qu'un réseau d'épidémio- surveillance opérationnel avait été établi avec l'appui du PACE, finance à 70% par les fonds EDF et à 30% par le gouvernement érythréen, ce réseau couvre la totalité des régions (Zobas) et sous régions (sub-Zobas) à travers 67 Postes de surveillance vétérinaires. Durant la période de mise en œuvre du PACE, 70 techniciens vétérinaires ou assistants vétérinaires ont été formés à la surveillance sanitaire et aux méthodes de prélèvement., D'autre part 10 techniciens du laboratoire ont été formés aux méthodes d'analyse.

Grâce à l'appui du PACE, l'Erythrée a pu obtenir en mars 2005 le statut de pays indemne d'infection en ce qui concerne la Peste Bovine, le pays s'est vu décerner une médaille d'or par L'AU-IBAR et un certificat de l'OIE pour cette remarquable performance.

En ce qui concerne les autres maladies animales, la mission a pu constater qu'une stratégie bien élaborée était en place et était bien connue et comprise par tout le personnel des services vétérinaires, tant au niveau central qu'au niveau des régions. Le gouvernement a déjà pris les mesures adéquates pour lutter contre l'influenza Aviaire avec la mise en place d'un comité de crise capable de réagir en cas d'urgence ; le PACE a supporté cette initiative en fournissant des équipements de protection et des kits de laboratoire pour l'identification du virus. Le seul point faible du système est l'absence de contrôle des mouvements du bétail.

La mission a d'autre part constaté, qu'en dépit de l'absence de vétérinaires privés, la qualité des services vétérinaires délivrés par l'état était tout à fait satisfaisante. De plus la direction des Services Techniques a établi un système de recouvrement des coûts des services et médicaments vétérinaires qui lui permet de s'autofinancer en grande partie. Une proposition de texte réglementaire régissant le fonctionnement des services vétérinaires a été élaborée et traduite en tigrinia, elle est actuellement examinée au sein du ministère de la Justice.

La mission a pu aussi noter que le PACE était totalement intégré au sein des services vétérinaires, et que, hormis l'appui apporté à la mise en place du réseau d'épidémiosurveillance, il avait aussi permis un soutien logistique aux autres activités telles que vaccinations obligatoires et traitements effectués par les agents du ministère de l'agriculture.

Enfin au niveau administratif et financier la mission a pu constater les excellentes relations entre le PACE et la délégation de l'Union Européenne, qui a permis de la clôture des différentes phase du PACE de façon satisfaisante, malgré les problèmes rencontres lors du démarrage du programme.

La mission a pu estimer *le niveau de réalisation des activités à plus de 90% avec un niveau* d'utilisation des fonds d'environ 85%.

Les recommandations suivantes ont été données par la mission :

Afin que le réseau d'épidémiosurveillance reste fonctionnel, le gouvernement doit prévoir un budget suffisant pour maintenir un niveau d'activités compatible avec le contrôle des maladies animales. En parallèle, des fonds supplémentaires devront être recherchés auprès des donneurs potentiels.
Les système d'information ARIS doit être amélioré afin d'être opérationnel ; ceci nécessite un appui de l'AU-IBAR, sous forme d'aide en ligne, de conseil et de formations supplémentaires.
Au niveau National, le réseau de communications informatique doit être achevé et rendu opérationnel.
Une stratégie globale pour la lutte contre les principales épizooties doit être développée et faire l'objet d'un document officiel.
La déclaration auprès de l'OIE du statut de provisoirement indemne de PPCB doit être une priorité.
Des efforts doivent être portés dans le contrôle des mouvements du bétail pour améliorer la lutte contre les maladies animales, en particulier par l'établissement de postes de contrôle aux frontières et sur les principaux axes de migration, ainsi qu'au niveau des marchés au bétail, des points d'eau et des zones de pâturage. Un système de laisser passer pour les mouvements d'animaux devra aussi être mis en place.
Les indicateurs de performance utilisés pour évaluer le réseau d'épidémiosurveillance, doivent faire l'objet d'un document et doivent être régulièrement publiés et analysés.
L'AU-IBAR devrait apporter son soutien pour réaliser une analyse des coûts/bénéfices de l'épidémiosurveillance, afin de donner des arguments en faveur d'un financement National ou International de ces activités.
Des formations supplémentaires pour les personnels de terrain doivent être envisagées, particulièrement pour ceux qui n'ont pas pu bénéficier des formations financées par le PACE.
Il serait aussi souhaitable que les cadres des services vétérinaires puissent bénéficier de plus d'échanges au niveau international.
Le laboratoire central vétérinaire devra recruter et former du personnel en nombre suffisant pour utiliser efficacement le matériel disponible et mettre en œuvre les nouvelles techniques de diagnostic.
Enfin, dans l'éventualité d'un nouveau projet, la division des Services Techniques devra renforcer son unité administrative et financière.

An independent Mission comprising two external evaluators, Dr Walter MASIGA and Dr Philippe DURAND carried out an evaluation of PACE - Eritrea from 23rd to 28th November 2006. The Mission would like to express gratitude to the Minister of Agriculture for counsel and advice, the Director of Technical Services for organising the itinerary of the Mission and giving valuable information and the Head of the Epidemiology Unit for always availing his time for the benefit of the Mission. Last but not least the Mission wishes to thank the European Commission in Asmara for its generous support and for financing the PACE programme.

I. Context of PACE Implementation in Eritrea

The Pan African Programme for the Control of Epizootics (PACE) coordinated by the Inter-African Bureau for Animal Resources of the African Union (AU/IBAR), was implemented in 30 Countries of West, Central and Eastern Africa including Eritrea. The programme was funded through a financing agreement signed between the European Union (EU) and the African Union (AU) on the 30th August 1999. The programme aimed at reducing poverty and developing the livestock sector in Africa through the creation of a sustainable sanitary framework. The financing agreement was due to expire on the 31st of October 2004, but was extended for an additional period, until the 28th of February 2007. The programme activities at country level were stopped on 31st October 2006.

The specific objectives of the Programme are, to:

- Establish national and continental epidemio-surveillance networks for major animal diseases;
- Reinforce national capacities to organize animal disease control programmes, making them technically and economically sustainable, and;
- Develop an effective and durable system for the delivery of veterinary products and services.

Funding

Programme Estimate	Period	Amount contracted	Amount disbursed
		Euro	Euro
WP Year 1	1 January 2001 – 31 December 2001	284,000	109,790
WP Year 2	1 May 2002 – 30 April 2003	282,000	110,209
+ Equipment	3 July 2002-February 2003	302,000	281,016

WP Year 3	1 May 2003 – 30 April 2004	239,000	130,501
WP Year 4	1 May 2004 – 30 April 2005	117,000	106,299
Extension*	16 September 2006 – 15 October 2006	381,700	296,218

*Not yet closed an estimate of 40,000 Euro will be disbursed

Administrative arrangement

Administratively, Eritrea is divided into six regions or Zobas. Each Zoba is further subdivided into a sub-Zoba.



The Livestock Population and its Economic Value

Based on the livestock census of 1997, there are approximately 1.9 million cattle, 2.3 million sheep, 4.5 million goats, 284,000 donkeys and horses, 300,000 camels, 2.5 millions poultry and 20,000 pigs. Livestock account for 20 % of the Gross Agricultural Product (GAP) and 4% of the Gross Domestic Product (GDP). The main animal diseases as defined by the ESS are Rinderpest (eradicated), CBPP, PPR, RVF, and FMD.

II. Methodology

The Evaluation Mission team used the following methodology, according to the Terms of Reference (see ToRs in **Annex 1**).

- Interviews with National Authorities i.e. the Minister of Agriculture, Director of Technical services (MoA), PACE National Coordinator, Head of Epidemiology Unit and other staff contributing to PACE Programme;
- Meetings with other actors of PACE, namely the EC Delegations (ECD) and the representatives of the National Authorizing Office of the EDF (NAO);
- Review of documents i.e. the Global Plan, programme estimates and activity and Mission reports;
- Field visit for discussions with the staff participating in the PACE epidemio-surveillance network;
- Review of the logical framework and assessment of the degree of achievement
- Assessment of the progress made in the implementation of PACE activities, using the performance indicators developed by the PACE Regional Coordination Unit;
- Analysis of the previous evaluations and/or monitoring reports and similar documents.

The details of the itinerary of the Mission are in **Annex 2**

The list of persons interviewed by the Mission is in **Annex 3**

III. Results of the Evaluation

Results of the evaluation are presented in line with the activities in the logical framework of PACE-Eritrea.

III.1. Progress made on Implementation of the Epidemio-Surveillance System

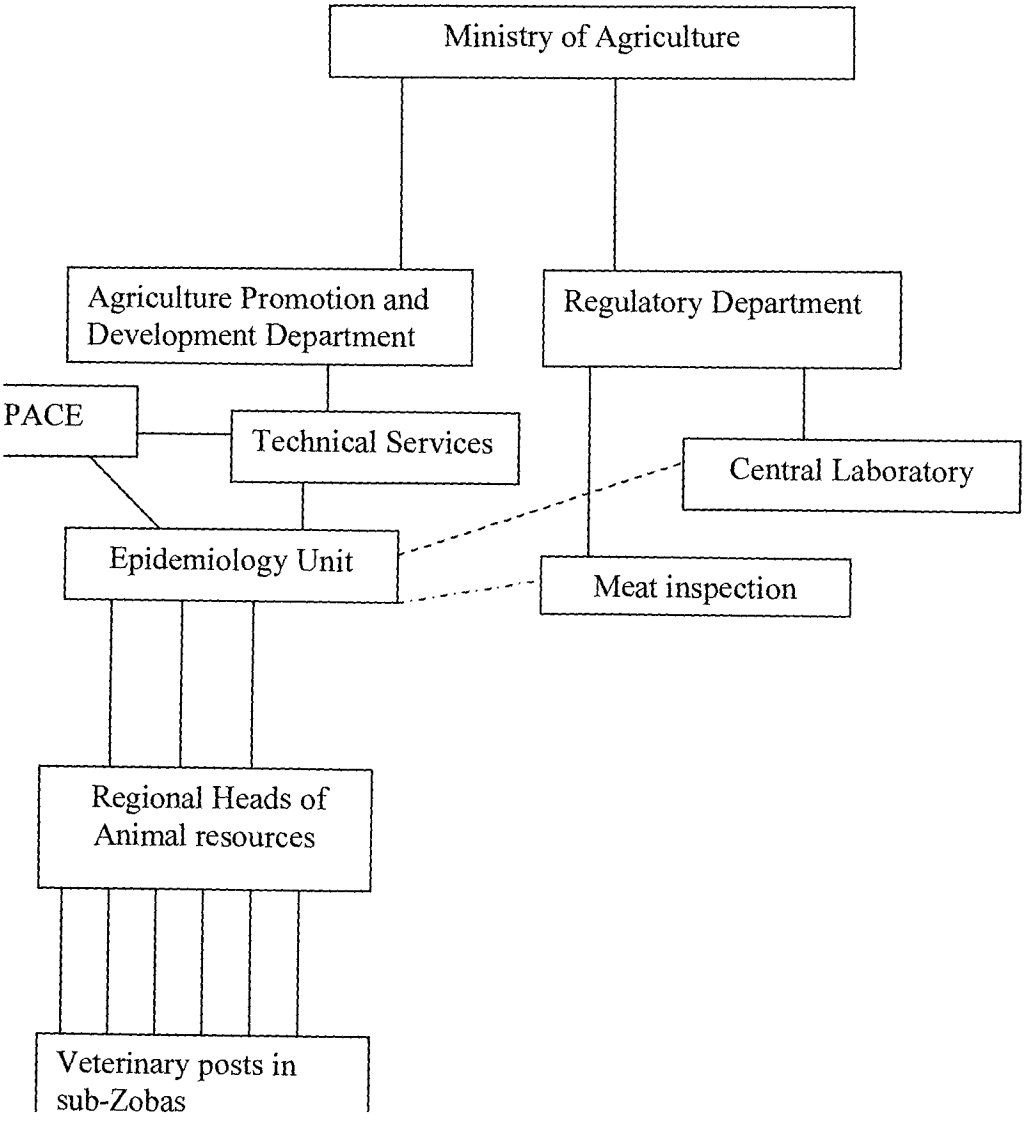
In the context of PACE the epidemiological surveillance of animal diseases is defined as a system based on systematic and continuous data collection, analysis and interpretation, allowing the health status and associated factors of given populations to be followed in space and time for use in planning, implementation and evaluation of disease control measures. In general the objectives of epidemiological surveillance are, early detection of priority diseases, accurate description of the distribution and occurrence of diseases and pathogens relevant to disease control strategies, proof of absence of specific infections, assessment of progress in control or eradication of selected disease and pathogens.

III.1.1 Organisation and Functioning of the Epidemio-Surveillance Network

The organisation of PACE in Eritrea was elaborate, being implemented through the following structure:

- Epidemiology Unit within the Technical Services Division of the Agriculture Promotion and Development Department of the Ministry of Agriculture;
- Six regional offices (Zobas) headed by the Regional Heads of Animal Resources and their teams in the sub regions;
- Central Veterinary Laboratory in Asmara;
- Other stakeholders who participated in the epidemio-surveillance network, including the:
    - Ministry of Fisheries (Avian Influenza);
    - Farmers who report diseases to the local administrative authorities where there are no veterinary posts, and;
    - Local authorities who transfer information to the sub-Zoba veterinary authorities.

ORGANOGRAM



Active surveillance (serological surveillance) is carried out by the Veterinary teams in Zobas and sub-Zobas according to the procedures developed by the Epidemiology Unit. Zoba Heads of Animal Resources meet quarterly with the Head of the Epidemiology Unit to discuss matters pertaining to disease control in their respective Zobas. It should be noted that there are no private veterinarians in the country and that government officials carry out all the epidemio-surveillance.

III.1.2 Flow of Sanitary Information and Data Management

The Epidemiology Unit organizes and coordinates collection of animal health data from villages, through the sub-Zoba and Zoba veterinary units. The animal health assistants and the animal health technicians in the sub-Zobas spend on average, ten days per month visiting the grazing areas, the water points and the different villages. In case of disease outbreak, they fill in the Animal Disease Surveillance field forms and dispatch them to the epidemiology unit through the Zoba Heads of Animal Resources. In case of a major disease outbreak, the Epidemiology Unit is quickly informed by telephone or facsimile. The Epidemiology Unit subsequently undertakes further investigations as appropriate. It should be noted that often, veterinary staff at Zobas level may undertake the investigations to conclusion.

The Zoba Heads of Animal Resources produce monthly reports on the zoo-sanitary situation and send them to the Epidemiology Unit. The Expert in disease control in the Epidemiology Unit verifies the data received from the field before they are entered into the database. Data are subsequently analyzed and compiled using both the Access and ARIS systems.

III.1.3 Valorisation of sanitary data and external reporting

The zoo-sanitary data are analyzed at central level using both ARIS and Access systems and monthly and six-monthly reports are produced and forwarded to AU-IBAR and O.I.E respectively. Since the launch of PACE, no Animal Health Newsletter has been produced.

The Mission observed that PACE Eritrea faced much difficulty in installing and using the ARIS system. To date the system is not fully functional:

- The system is operational at central level in ASMARA only;
- The data transfer module designed to forward data directly to AU-IBAR is not functioning. Reports have to be extracted from ARIS and sent by e-mail to Nairobi;
- Computers able to operate the ORACLE system have been purchased for all the Zobas, but the software to install ARIS is not yet available;
- The two information officers are not trained in GIS;
- There is no GIS software available for the use of the Epidemiology Unit;
- Of the two Information Officers in the Epidemiology Unit who were trained in Nairobi for five days in the ARIS system, one has been transferred to another department;

- The ARIS system *is not used to generate reports to OIE, rather reports are submitted* through the *OIE website.*

III.1.4 Central Veterinary Laboratory

The laboratory has been involved fully in all PACE activities as follows:

- Analysis of 21375 serum samples for Rinderpest'
- Analysis of 5780 serum sample for CBPP, and;
- Analysis of 5769 serum samples for Rift Valley Fever.

Currently the laboratory is testing samples for Avian Influenza.

PACE provided the laboratory with the following:

- Computers;
- Laboratory equipment including an ELISA analyzer, and;
- Consumables and kits.

Currently I Elisa, C ELISA, IC ELISA, AGID and VNT methods are used. It should be noted that the central laboratory is undergoing a major renovation and new equipment is being installed, notably the equipment for PCR. A vaccine production unit is under construction in the vicinity of the laboratory. The equipment is installed but staffing is currently inadequate.

III.1.5 Establishment of Performance Indicators

Performance is assessed during quarterly meetings and recorded via quarterly reports but there are no established Performance Indicators.

III.1.6 Sustainability of the Epidemio-Surveillance Network

The organisation of the epidemio-surveillance network is very efficient as the information flow is well organised from top to bottom and vice versa. Decisions are taken quickly and appropriate actions follow rapidly. Staffing is adequate and staff are well trained. The main challenge for sustainability of the epidemio-surveillance network is the availability of funds as most of the running costs of epidemio-surveillance (fuel for vehicles, staff allowances and consumables) were provided by PACE even during the extension phase. With the end of PACE it appears that the Government may not be able to meet all the costs immediately, which could result in many activities being scaled down.

III.2. Progress on the OIE Pathway for Rinderpest Eradication

- Last outbreak, 1993;
- Vaccination, 1993 to 1997;
- Establishment of surveillance teams, 1999 (11 teams were established, later on reduced to 9). More than 25,000 samples of serum were collected and analysed;

- Freedom from *disease, March 2004;*
- Freedom from infection, March 2005.

III.3. Strategies Elaborated and Put Into Practice to Control other Priority Animal Diseases

The other priority animal diseases in Eritrea are CBPP, FMD and Rift Valley Fever.

- **CBPP**: a National Emergency Preparedness Plan and a strategy for its control have been developed and is about to be implemented. The strategy includes sero surveillance, reinforced controls at border posts, reports from abattoirs, mapping of the infected zones and stamping out or vaccination depending on the prevalence of the disease. More than 5000 serum samples have been collected and processed, the results are currently being analyzed.

- **RVF:** more than 5000 serum samples have been collected and analyzed, confirming the absence of the disease. As a result, Eritrea is currently exporting live animals to Saudi Arabia.

- **FMD:** Serotypes O, A and Sat 2 have been identified and dairy cattle are compulsorily vaccinated annually (approximately 6000 animals have been vaccinated around Asmara). The strategy is now to extend this vaccination to a radius of at least 30 km around the dairy zone.

- Six other diseases are programmed for annual free and compulsory vaccination. The Government supplies vaccines free of charge, and PACE provides vehicles, fuel and per diems. The six diseases are:
    - **PPR and Sheep Pox**: vaccination covers 15 % of the population but with an objective of 50 % coverage in the near future;
    - **Rabies;**
    - **Newcastle Disease, Infectious Laryngo tracheitis and Infectious coryza**: vaccination targets mainly commercial farms.
- The control of **CCPP** is by antibiotic therapy;
- **Tuberculosis** is a major concern, but no strategy has been put in place;
- **Avian influenza (Emerging diseases):** It is important to underline that Eritrea is in the second flyway of wild bird migratory routes. Ministries of Agriculture, Fisheries and Health have put in place an Emergency Preparedness Committee and a task force for Avian Influenza. PACE has provided protective clothes and diagnostic kits. Teams have been trained in the Zobas and random samples have been collected and analyzed. The report will be sent to OIE in due course.

15 workshops have been conducted in the sub-Zobas to sensitize farmers on animal diseases and importance of disease reporting. So far 250 farmers have been trained.

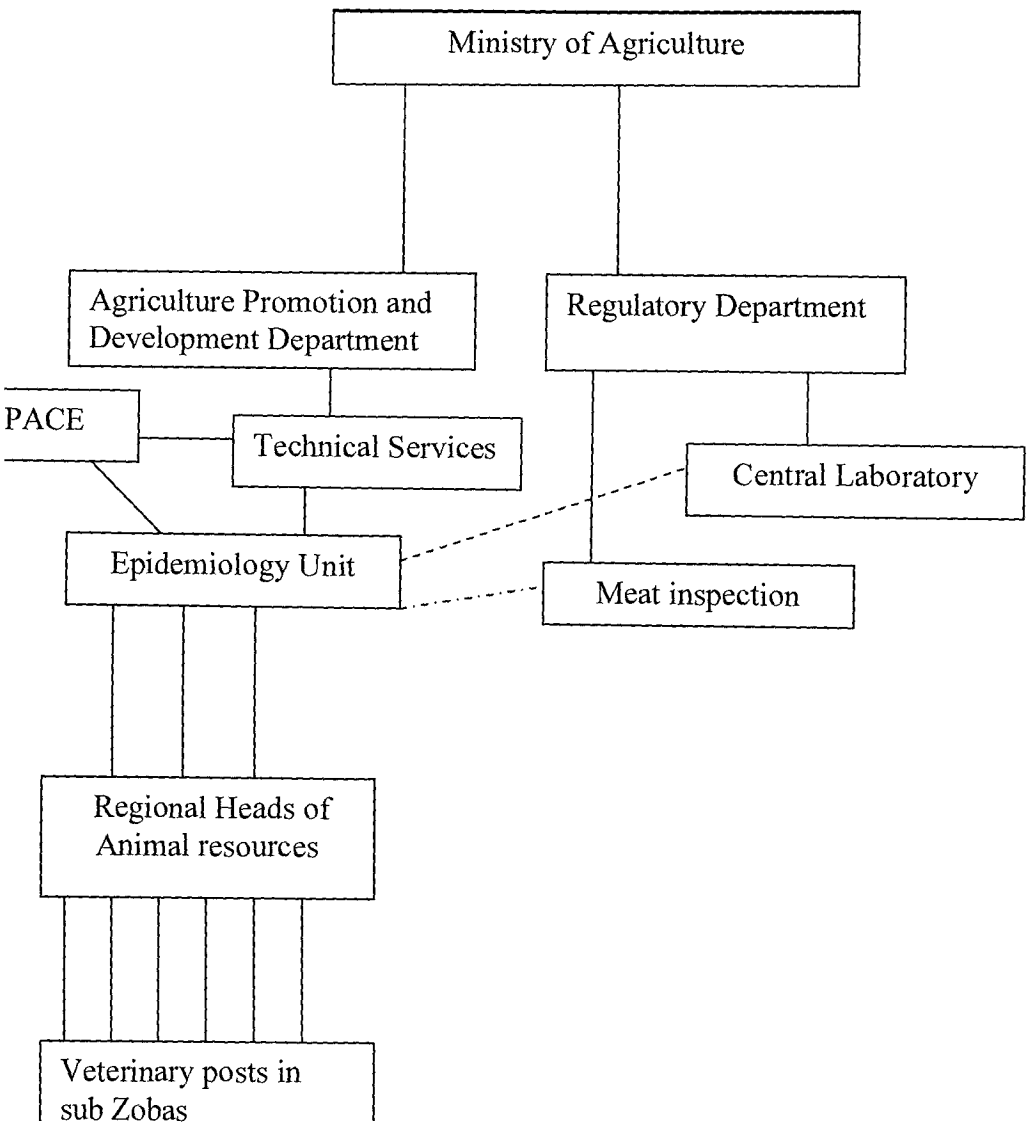
III.4. Improvement of the Delivery of Veterinary Services and Drugs to Livestock Owners

- The provision of veterinary services is carried out through public services;

- The veterinary drugs are purchased by the government through and international tendering system and supplied to the 55 veterinary clinics in the Zobas and sub-Zobas. The veterinary drugs are sold to farmers at cost (with exception of payment of legal taxes). The funds collected are deposited in the Technical Service Revolving Fund and are used to replenish the stock of drugs through new tenders. Moreover this fund is utilised for the purchase of vaccines and equipment;
- There are no private veterinarians in Eritrea. However, recently, five private veterinary pharmacies have been established and are functional. These pharmacies purchase drugs from the government and sell them with a profit margin.

It is to be noted that the government clinics are well staffed with trained Animal Health Assistants and Animal Health Technicians, and well stocked with veterinary drugs. Legislation on animal health has been drafted and translated into Tigrinya, and further transferred to the Ministry of justice for endorsement.

Organogram



Active surveillance (serological surveillance) is carried out by the veterinary teams in the Zobas and sub-Zobas according to the procedures developed by the Epidemiology Unit. Zoba Heads of Animal Resources meet quarterly with the Head of Epidemiology Unit to discuss matters pertaining to disease control in their respective Zobas.
It should be noted that there are no private veterinarians in the country and that government officials carry out all the epidemio-surveillance.

III.5: Administrative and Financial Management Procedures Applied

The steering committee meets on an ad hoc basis. The management is therefore based on mutual trust and understanding between the government and the EC Delegation in Asmara. The operations between the Delegation and the Government are adequate. However, there is an apparent weakness in the accounting unit but that has been compensated by the good support from the EC accounting department. It was noted that there were delays in closing the WP1 and WP2, but there was much improvement in closing WP3 and WP4, and no major problems are foreseen in the closure of the extension phase.

The Mission noted that there has been no previous evaluation of PACE-Eritrea, either by the EC or the Coordination Unit in AU-IBAR. Representatives of both the EC and the Government of Eritrea underlined a lack of communication with AU-IBAR.

The E.C. delegation would prefer to have an officer full time in charge of the programme to strengthen financial and progress reporting but it was understood that staffing within the MoA would not accommodate allocation of an extra officer for this purpose.

III.6: Visibility

The Mission noted that no animal health newsletter was produced. PACE posters and stickers are displayed on all veterinary offices at central and Zoba level. Vehicles are clearly identified with PACE stickers. However, other equipment purchased by PACE (e.g. computers and laboratory equipment) are not identified as such.

III.7: Status of Implementation of Recommendations Formulated at PACE Meetings and Workshops

The following meetings and workshops were convened:

- PACE Annual Regional Coordination Meetings (Cotonou, June 2002, Arusha, June 2003, Yaounde, June 2004, Dakar, June 2005);
- Technical Workshops (African Swine Fever, Lome 2001, Emergency Preparedness Plans and OIE Pathway, Abidjan 2002, CBPP Control Strategies, Accra February 2003, Rift Valley Fever, Dakar, January 2004, Validation of CBPP Control Strategies Conakry, February 2004, Optimisation of ESS Operations, Dakar, August 2004, PACE Regional and National Veterinary Laboratories Collaborative Network, Accra, September 2004).

All the recommendations were implemented with exception of the following:

- Planning of financial contribution *from the Government to epidemio-surveillance* funding;
- Allowance of 10% of the national budget to the agricultural sector,
- External quality assurance policy in national laboratories;
- Control of cattle movements;
- Entering OIE pathway for CBPP eradication – this recommendation is currently being implemented;
- Implementation of performance indicators in the ESS.

Remark: Recommendations regarding RVF, African swine fever and wildlife are not applicable to Eritrea

IV Review of Logical framework:

IV.1Review of Initial Log Frame

Out put	Objectively verifiable indicator	Sources of verification	Comments
1. The epidemio-surveillance network is strengthened and in addition supported by tools developed by PACE, in particular participatory approaches and the integrated database.	The operational costs of the surveillance network are funded in majority by resources from the national regular budget	Financial reports from the DVS, various other reports	Epidemio-surveillance in place and functional but financial plan not developed. Funding was mainly by PACE even during extension period
2. The Country confirms its disease free status for Rinderpest and is recognized as free from infection by the OIE.	Official OIE recognition of the country's sanitary status	Animal Report, OIE Official certificate, OIE. Annual report, OIE. World Animal Health Report 05-06	Infection free in March 2005
3. CBPP control improved throughout the Country	Annual number of outbreaks reported Cases generated by meat inspections in abattoirs	Outbreak reports, Annual reports, OIE	Carried out, ready to declare provisional freedom to OIE

4. The control of other epizootic diseases is strengthened throughout the country.	Existence of an emergency preparedness plan, approved by the Minster. Results of sero-surveillance in sentinel heards and animal health statistical reports.	Annual reports from the DVS Reports produced by the PID	Analysis carried out for RVF and CBPP, compulsory vaccination programmes instituted. Global surveillance plan not yet in place
5. The country possesses a modernized veterinary legislative framework and provides an incentive environment for private veterinary practice in agreement with OIE guidelines on the quality of the veterinary services	Approved publication of the new legislation by parliament.	Official publication of Eritrea veterinary legislation	New legislation has been written and translated into Tigrinya and passed to the Ministry of Justice.

IV.2: Review of the Log Frame for Extension Period

Activities	Verifiable indicators	Expected results	Comments
1. Adopt and exploit data on economic cost-benefit analysis regarding the funding of ESS, as developed by the PACE economics unit.	• Organize workshops • Staff trained on the technical know how of ESS	• The ESS strengthened • Nine teams are operational • Formats for ESS developed • Government budget for the operation of ESS reviewed	Not carried out
2. Prepare Government budget allocations for the operation of ESS 3. Acquire the necessary logistics for information management	• Organize national workshops to sensitize NGOs and Government officials on funding • Government budget proposals approved by the	• Formats upgraded • Epidemio-surveillance strengthened	Not carried out

	• The operational costs of the surveillance teams funded from national budget		
4. Develop and implement PIs to monitor work activities by the network agents	• Train staff on PI monitoring system • Organize workshops	• Formats upgraded • Monitoring work activities with PI strengthened	Not carried out
5. Strengthen the PID software 6. Harmonize forms used by the network to support appropriate database	• Purchase computers with Internet accessories • Train staff on PI management system.	• Regions linked with database information system	• Computer purchased • Training not carried out
7. Regularly publish and distribute monthly news bulletin.	• Organise workshops to contribute subject matter for publishing • Purchase of stationery	• Sanitary news bulletin regularly published	Not carried out
8. Establish and submit a report to OIE on the results of surveillance in cattle and wildlife before 30/11/05 in order to obtain infection free status (Rinderpest)	• Compile surveillance team reports • Organize workshops to evaluate the surveillance activities	• Free from infection report submitted to OIE	Carried out
9. Develop a request endorsement authority to implement control for CBPP in agreements made by TCP from FAO and PACE	• Organize workshops with the veterinary authority to agree on the strategic control plan of CBPP • Update staff on the control strategies	• CBBP control strategy approved	Carried out

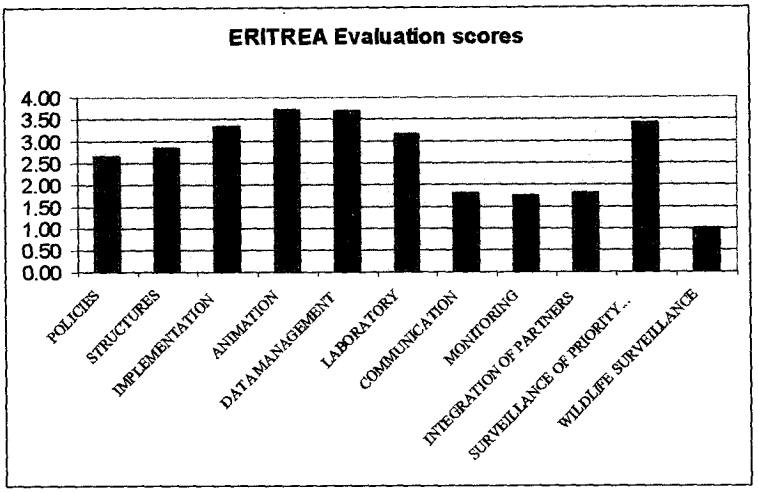
10. Strengthen the control measures required in the field network	• *Inspection of AM* and PM of animals • Inspection of animal products • Establish border posts • Develop active and passive disease surveillance • Organize study tours	• *Control of other* epizootic *disease* strengthened	*Carried out*
11. Strengthening the diagnostic capacities of the laboratory	• Provide necessary diagnostic materials (kits, lab consumables, equipment etc.)	• Laboratory capacity strengthened to enhance diagnostic methods	Carried out
12. Develop an emergency preparedness plan for RVF and have it approved by the veterinary authority	• Prepare a concept note in line with the guidelines of EMPRES • Organize workshops • Submit the report to the Veterinary Authority	• RVF plan achieved	Not carried out, but strategy developed, and samples collected and analysed
13. Actively encourage and support countries to reach agreement on draft legislation bill	Organize workshops to discuss the importance of the draft legislation Support the translation of the draft legislation into Tigrinya.	• Draft legislation submitted for approval	Carried out

The Mission estimated level of implementation of activities to be over 90 %.

Details of the level of implementation of activities are showed in **Annex 4**

V: Update on the Progress Rating of the Programme

V.1 Technical Evaluation of the Operation of the ESS in Eritrea based on 67 Monitoring Criteria



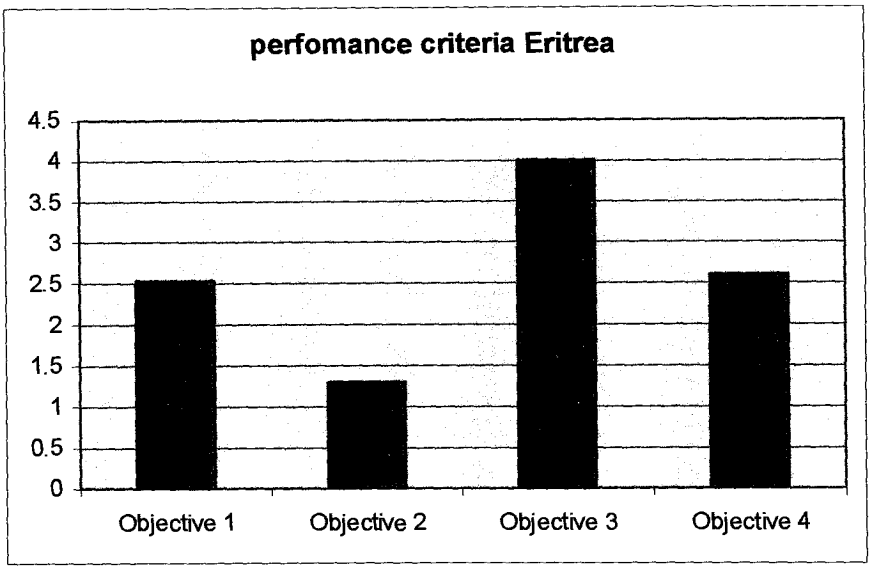
The global score for Eritrea, using ESS rating indicators developed by AU-IBAR is 2.64. It should be noted that this score takes into account an average score of 1 for wildlife. The Mission observed that the role of wildlife in disease transMission is negligible; this justifies why no disease surveillance was carried out in wildlife. If we discount the criterion of "wildlife" the global score would be 2.77. It should be noted from the above analysis that Eritrea is very strong in implementing disease surveillance with good data management and animation of the network. This is supported by good laboratory facilities. Policies and structures are well defined to support disease surveillance and control. External communication using the media needs improvement, as well as documentation of Performance Indicators (monitoring of ESS). The absence of private partners in Eritrea explains the low score on "Integration of Partners"

See details of scoring of indicators in **Annex 5**

V.2 PACE Progress Rating in Eritrea Based on 37 Monitoring Criteria

The 37 indicators are used to assess the achievement of the objectives listed below:

Objective I: Development of National Capacities of Analysis and Action in Epidemiology, Animal Health, Communication and Projects' Management
Objective II: Improvement of the Accessibility of the Drugs and Services to Breeders
Objective III: Control of Rinderpest
Objective IV: Control of CBPP and other Epizootics



- Objective 1: the overall capacity of the veterinary services for disease control is satisfactory with the exception of the absence of the publication of a sanitary bulletin due to lack of a communication specialist. The absence of GIS software limits the capacity to map the disease occurrence.

- Objective 2: the low score is not reflective of the good services provided to the farmers by the public veterinary services; it is based on provision of services by the private sector, which is absent in Eritrea.

- Objective 3: this is a success story.

- Objective 4: these are ongoing activities, the only weakness being absence of livestock movement control.

Details of the scoring are in **Annex 6**

VI Conclusions of the Mission:

VI.1: Epidemiology Surveillance Network

- An epidemiology surveillance network was adequately established during the PACE implementation period. The network covered all the major epizootic diseases. The approximate ratio of funding was 70% EDF and 30% Government funds. PACE provided materials, equipments, and vehicles, paid field allowances and salaries for casuals, staff on short-term contracts and general running costs of the surveillance activities while Government paid staff salaries.

- The epidemio-surveillance network spread across the entire country with 67 veterinary posts being established throughout the Zobas and sub-Zobas. Each of the 6 regions is staffed with a veterinarian, several Animal Health Assistants and Animal Health Technicians. Under PACE, 70 Animal Health Assistants were trained in disease

	• The operational costs of the surveillance teams funded from national budget		
4. Develop and implement PIs to monitor work activities by the network agents	• Train staff on PI monitoring system • Organize workshops	• Formats upgraded • Monitoring work activities with PI strengthened	Not carried out
5. Strengthen the PID software 6. Harmonize forms used by the network to support appropriate database	• Purchase computers with Internet accessories • Train staff on PI management system.	• Regions linked with database information system	• Computer purchased • Training not carried out
7. Regularly publish and distribute monthly news bulletin.	• Organise workshops to contribute subject matter for publishing • Purchase of stationery	• Sanitary news bulletin regularly published	Not carried out
8. Establish and submit a report to OIE on the results of surveillance in cattle and wildlife before 30/11/05 in order to obtain infection free status (Rinderpest)	• Compile surveillance team reports • Organize workshops to evaluate the surveillance activities	• Free from infection report submitted to OIE	Carried out
9. Develop a request endorsement authority to implement control for CBPP in agreements made by TCP from FAO and PACE	• Organize workshops with the veterinary authority to agree on the strategic control plan of CBPP • Update staff on the control strategies designed.	• CBBP control strategy approved	Carried out

10. Strengthen the control measures required in the field network	• Inspection of AM and PM of animals • Inspection of animal products • Establish border posts • Develop active and passive disease surveillance • Organize study tours	• Control of other epizootic disease strengthened	Carried out
11. Strengthening the diagnostic capacities of the laboratory	• Provide necessary diagnostic materials (kits, lab consumables, equipment etc.)	• Laboratory capacity strengthened to enhance diagnostic methods	Carried out
12. Develop an emergency preparedness plan for RVF and have it approved by the veterinary authority	• Prepare a concept note in line with the guidelines of EMPRES • Organize workshops • Submit the report to the Veterinary Authority	• RVF plan achieved	Not carried out, but strategy developed, and samples collected and analysed
13. Actively encourage and support countries to reach agreement on draft legislation bill	Organize workshops to discuss the importance of the draft legislation Support the translation of the draft legislation into Tigrinya.	• Draft legislation submitted for approval	Carried out

The Mission estimated level of implementation of activities to be over 90 %.

Details of the level of implementation of activities are showed in **Annex 4**

surveillance and sample collection and 10 laboratory technicians were trained in laboratory techniques.

- Performance of the epidemio-surveillance was assessed on a quarterly basis.

It may be concluded that PACE made a major contribution in assisting the Government to establish an efficient and operational epidemio-surveillance network in the country.

VI.2: Rinderpest Eradication

The achievement of OIE freedom from infection status obtained in March 2005 illustrates the efficiency with which the veterinary services implemented control procedures leading to the eradication of Rinderpest from the country. Eritrea was accordingly awarded a Gold Medal by the AU-IBAR and an OIE Certificate for this achievement.

VI.3: Strategy for the Control of CBPP and other Priority Epizootic Diseases

The Mission noted that strategies for the control of major epizootic diseases are well defined and understood at all levels, but only the strategy for the control of CBPP is documented. The Government is aware of the importance of Avian Influenza and is accordingly putting in place adequate structures for emergency preparedness.

The Mission observed that no adequate measures are taken to control livestock movements within the country and this may constitute a major weakness in disease control.

VI.4: Organisation of Veterinary Services including Privatisation

The Director of Technical Services is the "de facto" Director of Veterinary Services. Veterinary services and veterinary drug supplies are adequately delivered by Government officers at the Zoba and sub-Zoba levels through 67 veterinary clinics and pharmacies.

The Mission observed that privatization of veterinary services is not a priority for the Government. The private services are limited to 5 pharmacies and there are no private veterinarians in the country. Generally, the number of veterinary professionals in the country is very low standing at just 13.

Instead of utilizing Community Based Animal Health Workers, the Government preferred to train people for one year and attach them to communities for delivery of various services.

The Mission noted that the establishment of a revolving fund and cost recovery system guaranteed the sustainability of veterinary services delivery.

The Mission noted that a draft veterinary legislation has been produced and translated into Tigrinya and forwarded to the Ministry of Justice.

VI.5: Level of Integration of PACE Activities within the National Veterinary Services

The Mission noted that PACE was fully integrated into Eritrea's veterinary services system and that although PACE was meant mainly to establish epidemio-surveillance networks, the

programme also supported other operational areas of veterinary services such as vaccination and treatments by providing logistical support.

VI.6: Administrative and Financial Management Procedures Applied

Although the programme experienced administrative difficulties at the beginning, the Mission noted that the overall administrative and financial management was adequate, the only limitation being the absence of an Officer responsible for Financial Management within the programme at the Ministry level.

VI.7: General Conclusion

In accordance with the review of the log frame and the AU-IBAR indicator system, the Mission concluded that the level of implementation of the programme activities is above 90%. The ratio of funds utilized to funds committed is above 85 % not withstanding the final statement of account.

VII.8: Recommendations

1) The epidemio-surveillance network established and supported by PACE should remain functional and operational. It is recommended that the Government make financial provision to sustain the level of activities established for surveillance and control of priority diseases. In addition, alternative sources of funds should be sought.

2) The information system (ARIS) put in place by PACE should be made operational with technical support (online support, training, advice) from AU-IBAR.

3) At national level, the computer networking between the Central Unit and Zobas should be completed and made operational.

4) Global strategy for the control and the eradication of priority diseases should be developed and documented.

5) Priority should be given to the declaration to OIE of provisional freedom from CBPP.

6) Efforts should be amplified in the control of livestock movement to enhance disease control, especially by establishing checkpoints, border posts, control at water points, livestock markets and grazing areas and the introduction of movement permits.

7) Performance indicators used to assess the epidemio-surveillance should be documented and published on a regular basis.

8) AU-IBAR should assist the country to carry out a cost benefit analysis of the epidemio-surveillance in order to support the lobbying effort for national and donor funds.

) Further training should be carried out for field staff who have not benefited from PACE training and in addition, arrangements should be made to promote international exposure for senior staff.

10) Consideration should be given to the adequate staffing of the central veterinary laboratory in order to utilize the new equipment and to start applying new techniques for the benefit of disease control.

11) For future donor funded programmes, consideration should be given to strengthening of the financial and administrative capacities within the Technical Services Division.

Annexes

Annex 1: Terms of Reference for the Mission

Terms of Reference
Short Term Technical Support Mission

External evaluation Missions
in four PACE member countries

Duration: 84 man/days in total

60 days on-site (including briefing in Nairobi and Bamako) + 8 travel days + 16 days of drafting of the aide memoire and the final evaluation report.

Submission of the report: the preliminary report will have to be delivered in French or in English, according to the official language of the countries evaluated, within 15 working days after the end of the Mission, in four bound copies, to the PACE Coordination office in Nairobi:

The report will have to contain an ` *executive summary'* of maximum 4 pages drafted in French for Anglophone countries and in English for Francophone ones.
Each country report will contain no more than 30 pages, including annexes.
The report will have to be accompanied by an electronic version on CD-Rom (two copies).

Expected starting date of the Mission:

As soon as possible, preferably before September 10, 2006 and as of reception of necessary clearance from the countries to be visited.

Necessary qualifications:

University degree in veterinary science and/or related field (agronomy, livestock sciences) for at least one of the experts.
Professional experience of 10 years or more.
Thorough knowledge of animal health issues in Africa, including liberalisation of veterinary services
Experience in the field of logical framework analysis and project cycle management
Experience with EDF and European ComMission financial rules and regulations (EU-ECP Cotonou agreements)
Advanced proficiency in French and/or English (to understand, speak and write) and good working knowledge of the other language.
Proficiency in common office software (word processor, spreadsheet, internet and e-mail)

Desired qualifications:

Third cycle diploma in a discipline relevant to the Mission
Experience in the field of the epidemiology of major animal diseases

Experience with OIE guidelines on the quality of veterinary services and sanitary pathways for major animal diseases (primarily rinderpest and CBPP).
Experience in the field of communication, extension and public awareness campaigns
Experience with zoo-sanitary database systems
Knowledge of the context, namely the coordinated, regional development of veterinary services
Knowledge of international agreements and guidelines with regard to non-tariff barriers to trade
Experience with PARC/PACE or failing this, other major animal disease control programmes

Composition of the team

The PACE programme leaves to the initiative of the contractor the choice on the composition of the Mission, provided that at least one member of the team is a veterinarian, preferably having a strong background in epidemiology. Technical and managerial skills of the consultants proposed should be duly proven and possibly certified. Their skills can integrate and complement to cover all Mission requirements. Alternative solutions (e.g. provision of 4 experts instead of two, working in 2 teams) could also be accepted.

Context of the Mission:

The present Mission is requested by the PACE Programme following the recommendations of the 10th PACE Advisory Committee meeting, held in Bamako in April 2005. The Missions will complete the ongoing round of internal evaluation Missions conducted by the PACE team since 2004, and will complement the EC funded final evaluation of the PACE Programme, carried out between June and August 2006.

These Missions cover all aspects of programme implementation, including a comprehensive scoring exercise and attempt to assess possible impacts of the programme (now or in the foreseeable future) through an analysis of the logical framework(s). The Missions will be carried out using the same methodology adopted for the internal evaluation Missions, making use of a standardised reporting template and common monitoring indicators.

Terms of reference:

During his/her/their Mission(s), the selected expert(s) will be expected to provide the following services :

1. To conduct a rapid but thorough and unbiased assessment of programme progress in 4 selected countries, covering at least the following issues :
    - progress made on implementation and funding of the epidemio-surveillance systems,
    - progress on the OIE Pathway for rinderpest eradication,
    - strategies developed for the control of CBPP and the other priority epizootic diseases,
    - organisation of veterinary services including privatisation according to standards recommended by OIE,
    - measures taken to reinforce the private veterinary sector and to support stockbreeders' associations,
    - the level of integration of activities of the PACE programme within the national department of veterinary services (or similar veterinary authority),

- administrative and financial management procedures applied,
- visibility of the actions carried out by the PACE programme,
- status of implementation of the recommendations formulated at PACE meetings and workshops.

2. To conduct interviews with all stakeholders and visit representative infrastructures or institutions, likely to contribute to the understanding of the processes involved :

    - discussions with staff of the PACE National Programme Coordination (NPC) and staff of the national department of veterinary services (or similar veterinary authority),
    - meetings with the officers in charge of the follow-up of the programme at the ECD and the EDF desk (representing the NAO of the EDF),
    - review of the documents concerning the PACE programme, including the progress reports and the Mission reports, but also the 2-page EC monitoring reports,
    - field visit and discussions with regional and district officers (or similar) in charge of animal health and the agents of the veterinary checkpoints associated with the epidemiological surveillance system (ESS),
    - visits of the laboratory/ies, slaughterhouse(s), slaughter-slab(s), borderpost(s), farms,...

3. To conduct a review of the logical frameworks as listed in the PACE programme global strategic plans (initial and extension) in order to assess the degree of compliance with the scheduled activities and the (present and future) achievement of expected results.

4. To carry out an update of the progress-rating of the PACE programme, using the monitoring indicators developed within the framework of PACE. This approach is based on 37 performance criteria with a score varying from 1 to 4 and which take into account, apart from the implementation of the programme, the impact and the sustainability of the actions, also the socio-political environment in which the programme is embedded.

5. To formulate conclusions (not exceeding one page) and recommendations (maximum 10) in order to improve programme implementation, both technically and administratively/financially.

The countries selected are:

1. Eritrea
2. Gabon
3. Cameroon
4. Benin

The consultant should be equipped at least with the following goods/materials:

- Personal computer (laptop) and necessary peripherals
- Office stationary needed
- Working cellular telephone

- Digital camera

The following costs are to be foreseen in the consulting fees :

- Visa application fees, passport fees
- Photocopy, e-mail, internet and telephone services
- Local transport by taxi or bus
- Interior (domestic) flights
- Costs of producing the (draft and final) reports (printing, copying, binding)

The PACE Coordination will provide the following goods and services:

- One-day briefing in Anirobi for the inception of the Mission and in Bamako for the starting of field activities
- Reporting templates (electronic)
- Reference documents, project documents, budgets (electronic and/or printed copies)
- Monitoring and evaluation grid (electronic)
- Assistance for visa application

Deliverables :

1. Aide memoire, at the end of the field visits, to be presented during a plenary meeting;
2. Final Mission report (hard and electronic copies)

Annex 2: Itinerary of the Mission

Date	planning
22/11/2006	Arrival in Asmara at 22h30
23/11/2006	• Discussion on epidemiosurveilance with Mr Afewerki Mehretab expert in disease control in Technical Services • Review of available documents
24/11/2006	• Discussion with the PACE Coordinator and Director of Technical Services: Dr Ghebrehiwet Teame. • Meeting with the Minister of agriculture • Visit to the central laboratory, Asmara • Meeting with the information officers • Visit to a private pharmacy, Asmara.
25/11/2006	• Visits in Mendefera, provincial capital of Debub Zoba o Veterinary clinic o Laboratory o Pharmacy o Livestock market
26/11/2006	• Drafting report
27/11/2006	• Visits in Asmara o Dairy farmers cooperative o Asmara dairy (Milk Factory) o Asmara public slaughterhouse o E.C. delegation Asmara
28/11/2006	• Debriefing meeting: presentation and discussion of aide memoire.
29/11/2006	• Mission departs to Nairobi at 9h40

It should be noted that the Mission could not visit Massawa because of heavy rains in the region.

Annex 3: List of persons met during the Mission

Name	Title	Organisation
His E. Arefaine Berhe	Minister of Agriculture	MoA
Dr Gebrehiwet Teame	Director of Technical Services	MoA
Mr Afewerki Merhetab	Expert in disease Control	MoA
Mr Tekie Tesfaalem	Information Officer	MoA
Mr Nahom Negassi	Information Officer	MoA
Mr Tesfu Yemane	Lab technician	Central Vet laboratory
Dr Uqbazghi Kefle	Head of animal resources: Debub Zoba	MoA Mendefera
Mr Kebreab Behaimanot	General Manager	Asmara milk factory
Mr Afeworki Fessahaie	Manager	Public slaughterhouse Asmara
Mr Tsegai Gebremariam	Senior meat inspector	MoA
Mr Ugbamichael + Committee members	Manager	Asmara and surroundings farmers dairy cooperative
Mr Stephane Halgand	First secretary: Head of Food security and Rural development Section	Delegation of European ComMission Eritrea
Mr Mehari Habtemariam	PACE accountant	MoA
Mr Hagos Yohannes	Unit Head	MoA

Annex 4: Details of the level of implementation of activities (extension phase)

Table 1. Number of sera planned for collection in the extension year one and to be processed in the central laboratory.

Disease	No of samples to be collected	Diagnostic test to be applied	Remarks	Comments
PPR	100	Immuno-cupture ELISA	Purposive sampling	Not carried out
CBPP	4,500	cELISA	Purposive sampling	More than 5000
FMD	200	Antigen detection ELISA	Purposive sampling	Not carried out
RVF	4,500	IgG ELISA	Purposive sampling	More than 5000

Table 2. training Planned and Workshop programs.

Training	**Duration**	**No of train ees**	**Remarks**	**Comments**
Training of Animal Health staffs in emergency preparedness	5 days	30	* MOA	30
Training of Farmers on Animal Health	5 days	50 X6 = 300	Regions	250
Training in PID to Animal Health staffs.	5days	30	MOA	30
Training on sensitization of Farmers on ESS	5 days	50X6 = 300	Regions	250
Training of Animal Health staffs on Epizootic diseases	5days	30	MOA	30
Training of Farmers on reporting system	5 days	50X6 = 300	Regions	250
Training on sample collection to A. Health staffs.	5 days	30	MOA	30
Workshops		No of partic ipants		
Seminars on Animal Health procalmation	2X2days	50	MOA	Carried out
Workshops on of CBPP control strategy	2days	50	MOA	Carried out
Workshops on Quarterly PACE report	4 X 2days	50	MOA	Carried out
Workshop on cost benefit analysis of Epidemiosureveillance	2 days	30	MOA	Not carried out
Regional & International workshops				
International OIE meeting	10 days	1	Paris	Carried out
Coordination meeting	10 days	2	Regional	Carried out

Regional harmonization meeting	10daysX 2	2	Regional	Not carried out
International lab meeting	10 days X2	1	Regional	Carried out
Study tour	15 days	8	Regional	4 people to Botswana 2 to india
Unplanned international meeting	10 days	4	Regional	

Table 3. Local, foreign procurement for PACE Extension year one

S. No	Item	Amount planned	Observation	Comments
1	Vehicle 4 Wheel drive	3	Tender to be processed	Carried out
2.	Computers	10	Tender to be processed	Carried out
3.	Stationeries	Lump sum	Local purchase	Carried out
4	Printers with accessories	10	Tender to be processed	Carried out
5	GIS apparatus	10	Tender to be processed	Carried out
6	UPS & accessories	7	Tender to be processed	Carried out
7	Lab consumables		Tender to be processed	Carried out
8	Kits		Tender to be processed	Carried out
9	Refrigerators		Tender to be processed	Carried out
10	Safteyhood, software atlas,Incubator Co_2, steerer hot and cold magnetic.	Lumpsum	Tender to be processed	Carried out

ANALYSIS OF EPIDEMIO SURVEILLANCE ACTIVITIES

		Score
	STRATEGIES & NATIONAL POLICY	**2.67**
1	National policy and strategies for control priority diseases, established (definition of priority diseases, law, sanitary policy in force...)	3
2	Control plans for priority diseases, established & functional	3
3	Take over of financial responsibility by the state (even partial) of the surveillance of animal diseases (except wages)	3
4	Existence of an "emergency fund" in case of an epizootic (PB, FVR)	3
5	Plans for control of the main zoonoses	3
6	Integration of private veterinarians in national priority animal disease control plans	1
	LEGAL BASIS, COMPOSITION & STRUCTURE	**2.83**
7	Steering committee, functional (respecting meetings and schedules)	3
8	Technical committee, functional (respect for meetings and schedules)	4
9	Central Unit of network/system established and functional	3
10	Organogram and flow chart of the network/system established (formalization, chain of command)	3
11	Chart of operation of surveillance system (existing, validated and used)	1
12	Integration of partner structures of animal health in surveillance system/the network	3
	IMPLEMENTATION & OPERATION	**3.33**
13	Agents of surveillance posts set up (number, provision... consistent with the country context)	4
14	Basic training of the field agents (epidemiology, surveillance, sampling, diagnosis and treatment...) realized and regular refresher courses held	3
15	Handbook of procedures for field agents of the network/system available	1
16	Working papers validated (guide for field agents, enquiry forms...)	3
17	Tools for data acquisition available in the field (cards, questionnaires...)	4
18	Sampling material available in the field (logistics, storage and forwarding...)	4
19	Efficient means of transport (vehicles and fuels...)	4
20	Means of communication provided to the field agents (radio, telephone, RAC...)	3
21	Mobile Teams (multidisciplinary) set up and functionals	4

	ANIMATION (COACHING)	**3.71**
22	Qualified human resources available at the Central Unit level	4
23	Regular field Missions of the Central Unit (or Regional) undertaken	4
24	Means of operation efficient at all levels (cards, cold chain, fuel...)	4
25	Continuous animation within the network/system (workshops, meetings between partners)	3
26	Animation and communication outside the surveillance system/network	3
27	Systematic feedback of information towards the field (agents, stockbreeders, veterinarians...)	4
28	Regular update of the chiefs of station and linking agents of the network/system	4
	MANAGEMENT OF DATA & SANITARY INFORMATION	**3.69**
29	Existence of a functional Data Base (responsible identified, competences, and logistics...)	4
30	Procedures of data management, respected: validation, entry and analysis	4
31	Validation of data (reliability, exhaustiveness, specificity...)	4
32	Effective use of the PID/ARIS or another data base software	3
33	Processing of statistical and epidemiological data and issuing of epidemiological reports	3
34	Use of a GIS (issuing of updated zoo sanitary maps)	1
	DIAGNOSTIC LABORATORIES	**3.17**
35	Role and implication of the laboratory within the surveillance system/network formalized (protocol...)	3
36	Skilled human resources for diagnosis of animal diseases	3
37	Capacity of analyses for the priority diseases (Nb samples analysed per month)	4
38	Materials provided by network	4
39	Existence of functional decentralized laboratories (human and material)	2
40	Participation of laboratory in the disease/outbreak investigations of surveillance system/ network and animation (coaching)	3
	COMMUNICATION & FLOW OF MEDICAL INFORMATION	**1.80**
41	Awareness documents elaborated and diffused	2
42	Communication tools are efficient, diversified and updated (radio, TV, posters...)	2
43	Edition of a periodic sanitary bulletin (regularity, quality...)	1
44	Diffusion of the bulletin at all levels and in sufficient quantity	1

45	Frequency and quality of the technical reports issued (OIE, IBAR...)	3
	MONITORING OF THE ACTIVITIES	**1.75**
46	Performance Indicators for monitoring and assessment of surveillance systems identified and validated	2
47	Application of the PI at all levels and components of network/system	2
48	Identified correction measures implemented, following the utilisation of PI	2
49	Motivation and incentive measures of the agents on the qualitative and quantitative level (principle of the meritocracy)	1
	INTEGRATION OF THE PARTNERS	**1.8**
50	Integration of private vets in diseases surveillance (formalized, effective)	1
51	Integration of professional organizations and other structures in surveillance epidemiological system formalized and effective (ONG, projects...)	1
52	Training & awareness of the partners on diseases surveillance	1
53	Integration of the stockbreeders and producers associations in surveillance system/network	2
54	Training and integration of sentinel livestock breeders in the surveillance system/network	4
	SURVEILLANCE OF PRIORITY DISEASES	**3.4**
55	Detailed surveillance protocols for each priority disease, elaborated and applied (procedures, relevance...)	3
56	Sampling frame for rinderpest surveillance established and used according to the OIE recommendations	4
57	Clinical surveillance of rinderpest following the OIE recommendations (supported suspicions, quality of questionnaires…)	4
58	Serological surveillance of rinderpest following the OIE recommendations (samples , analyses...)	4
59	Effective surveillance of zoonoses by the surveillance system/network	2
	WILDLIFE SURVEILLANCE	**1**
60	National officers trained and operational (livestock and forestry)	1
61	Field agents for wildlife on post (number, positioning, context...) trained and updated	1
62	Effective working tools and equipment (questionnaires, transport, communication, equipment, samples..)	1
63	Collection of sanitary data on wildlife carried out	1
64	Sanitary data integrated into the database (relevance, reliability, volume...)	1

65	Effective clinical surveillance (reports, declarations, suspicions...)	1
66	Serological Rinderpest (RP) surveillance carried out through hunters	1
67	Serological Rinderpest (RP) surveillance carried out through the teleanesthesie	1

Annex 6: Monitoring of performance indicators in PACE Eritrea

Indicator	Score
Objective I : Development of national capacities of analysis and action in epidemiology, animal health, communication and projects' management	
I.1. Presence of a functional steering or advisory committee; as well as a technical committee, presence of a functional central unit providing efficient support to the epidemio-surveillance network, regular visits to checkpoints, regular training and technical upgrading of the agents	4
I.2. Existence of a charter (rules manual or manual of instructions) defining the network operation system (internal regulation, rules within the network, bases visits);	2
I.3. Reliability of sanitary information produced on diseases controlled, protocols of surveillance validated, field data validated in quantity and quality, number and quality of reports provided by surveillance posts (checkpoints) to the network body, number and quality (exploitability) of sample collected and provided by the network posts (checkpoints) to the laborator(y)(ies);	4
I.4. Broad and rapid internal circulation of sanitary information (veterinary services, laboratories, feedback to breeders/producers...);	4
I.5. Diagnostic capacity of the laboratories (national laboratory functional or efficient foreign laboratories subcontracted)	4
I.6. Action taken at national level to develop a collaboration between veterinary services and wildlife services, in order to implement wildlife surveillance;	2
I.7. Presence of a person in charge of communication with a well-structured work plan (terms of reference properly linked with the 4 thrusts) and a real integration within the PACE team.	1
I.8. Efficient promotion and institutional communication from PACE at the level of authorities and partner development organisations. Sufficient level of participative approach within communication to breeders-producers, and to the large public with a sufficient quantity of media supports produced versus needs.	2
I.9. Availability and variety of communication-tools: rural radios, printers, human resources, financial and material resources.	2
I.10. Use of a computerized zoo-sanitary data base	4
I.11. Use of a Geographic Information System (mapping of diseases, mapping of location of the network agents)	1
I.12. Presence of expertise in animal health economy	1
I.13. Utilisation of a procedure of administrative and financial management compatible with the rules defined for the projects financially supported by the DEF	4

(software-package PACE, TOMgift, etc)	
I.14. Frequency and quality of technical and financial reports provided to the Coordination Unit of PACE and of sanitary reports provided to OIE and IBAR and to neighbouring countries	3
I.15. Regular publication of a zoo-sanitary information bulletin with printing and distribution in sufficient quantity to the appropriate targeted persons	1
I.16. Progress made in the financial contributions of the government for epidemiological surveillance activities	2
I.17. Gradual extension of the network to the other field agents and integration to other stakeholders into the network (private veterinarians, livestock traders, breeders' associations, CBAHW)	2
Objective II : Improvement of the accessibility and of the drugs and services distribution to breeders	
II.1. Organisation of animal health services especially its coherence with the OIE's criteria including a role for private actors	1
II.2. Presence of a private sector to assure animal health services (importation and distribution of drugs and inputs, veterinary services, animal health delivery)	1
II.3. Existence of legal texts and regulation allowing a proper exercise of veterinary professionals and better sharing of tasks between public and private sector	3
II.4. Political action to settle and favour the implementation and development of a private veterinary sector by setting prerogatives of private veterinarians versus public sector agents and para-professionals	1
II.5. Institution of the sanitary mandate and its application's scope (disease surveillance, animal vaccinations, food inspection, prevention and control of diseases)	1
II.6. Encouragement of a policy enhancing the cost recovery not only for products used (drugs, vaccines), but also for veterinary services (fees)	2
II.7. Existence, dynamism and impact of veterinary professional organisations especially: Veterinary Board, Veterinary Associations	1
II.8. Level of organisation of breeders' associations and of other professionals' bodies and their impact on delivery of veterinary services	1
II.9. Development of a community based participatory approach with breeders-producers	1
II.10. Regular consultations, meetings or encounters between government veterinary services, private sector and stockholder-organisations	1
Objective III : Control of rinderpest	
III.1. Vaccination stopped against rind3erpest at national level and engagement/adhesion to OIE pathway for the status of freedom from rinderpest (provisionally free, free from disease, free from infection)	4
III.2. Implementation of an efficient clinical surveillance of cattle (active search of stomatitis - enteritis cases)	4
III.3. Implementation of an efficient serological surveillance of cattle through serum collection	4
III.4. Implementation of an efficient epidemio-surveillance (including both clinical and serological surveillance) system for rinderpest in wildlife in countries where significant numbers of susceptible species are present	N/A
III.5. Existence of an emergency intervention plan against rinderpest, adapted to the country conditions, regularly updated and distributed to the various potential actors	4
Objective IV: Control of CBPP and other epizootics	

IV.1. Action taken to improve knowledge regarding epidemiological data on animal diseases (spatial and temporal distribution, prevalence, census)	**4**
IV.2. Existence of validated documents on control strategies for priority animal diseases, including emergency preparedness plans and the establishment of an emergency fund and a stock holders compensation fund	**3**
IV.3. Action taken to improve collaboration between veterinary services and public health services for the control of zoonoses (RVF, rabies) in countries where zoonoses are amongst the priority diseases withheld	**3**
IV.4. Existence of zoo-sanitary agreements with neighbouring countries and the degree to which these agreements have been applied in the field	**2**
IV.5. Existence of animal movement control and traceability measures ([inter]national certificates of transhumance, sanitary laissez passer, branding of cattle, national register)	**1**

Scores (classes)

4 : Activities (completely and satisfactorily) implemented
: Activities implemented and in progress
: Activities beginning to be implemented or stagnating
1 : Activities not implemented yet

Annex 7: list of acronyms

AGID Agar Gel Immuno Diffusion
AU: African Union
AU-IBAR: African Union-Inter African Bureau for Animal Resources
CBPP: Contagious Bovine Pleuro Pneumonia
EDF: European Development Fund
ESS: Epidemio Surveillance System
EU: European Union
FMD: Foot and mouth Disease
GIS: Geographical Information System
MoA: Ministry of Agriculture
OIE: Office International des Epizoties
PACE: Pan African Control of Epizootics
PCR: Polymerase Chain Reaction
PI: Performance Indicators
RVR: Rift Valley Fever
VNT Virus Neutralization Test
WP: Work Programme

Annex 8: List of documents consulted

1) Global plan for PACE Eritrea
2) Project estimate No 1: extension period
3) Financial statements from E.U. delegation Asmara
4) Financial statements from AU-IBAR
5) Mission report to Eritrea: Dr Andrea Massarelli, February 2005
6) Mission report to Eritrea: Dr Philippe Leperre, March 2006
7) Review of PACE national Programme progress and country poster presentation, AU-IBAR, june 2006
8) Progress reports from epidemiology Unit, Technical services MoA Asmara