AFRICAN UNION / INTERAFRICAN BUREAU FOR ANIMAL RESOURCES
(AU/IBAR)

PAN-AFRICAN PROGRAMME FOR THE CONTROL OF EPIZOOTICS (PACE)

"FIGHT AGAINST LINEAGE 1 RINDERPEST VIRUS" PROJECT

SUDAN

NORTHERN SECTOR SUB-PROJECT

DRAFT
WORK PLAN/ COST ESTIMATE

Period: 1st May 2004 – 31st October 2004

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ACRONYMS

ACORD	Agency for Co-operation and Research in Development
ACROSS	Association of Christian Resource Organisations Serving Sudan
ADRA	Adventist Development and Relief Agency
ADS	Area Development Scheme
AHEDC	Animal Health and Epizootic Disease Control Department
AHA	Animal Health Auxiliary
ARRC	Animal Resources Research Corporation
ARS	Area Rehabilitation Scheme
ASES	Active Stomatitis-Enteritis Surveillance
AU	African Union
BQ	Black Quarter.
CAHS	Community-based animal health service
CAHW	Community-based animal health worker
CAPE	Community-based and participatory epidemiology
CAR	Central African Republic
CBPP	Contagious bovine pleuropneumonia
CCPP	Contagious caprine pleuropneumonia
DMEU	Disease Monitoring and Evaluation Unit
DRC	Democratic Republic of Congo
DOT	Diocese of Torit
EC	European Commission of the European Union
ECF	East Coast Fever
EDF	European Development Fund
ELISA	Enzyme-linked immunosorbent assay
EU	European Union
EVK	Ethnoveterinary Knowledge
FAO	Food and Agriculture Organisation
FEWS	Famine Early Warning System
FIT	Field Investigation Team
FMD	Foot and Mouth Disease
FMOAR	Federal Ministry of Animal Resources
FRRA	Fashoda Relief and Rehabilitation Association
GAA	German Agro-Action
GIS	Geographical Information System.
GOS	Government of Sudan
GREP	Global Rinderpest Eradication Programme
HS	Haemorrhagic septicaemia
IAEA	International Atomic Energy Agency.
IBAR	Interafrican Bureau for Animal Resources
ICRC	International Committee of the Red Cross
JP 15	Joint Project 15
LSD	Lumpy Skin Disease
NDV	Newcastle Disease Virus
NGO	Non-governmental Organisation
NPA	Norwegian People's Aid
NZDC	National Zoonotic Diseases Committee.
OCHA	Office of Co-ordination of Humanitarian Assistance
OIE	Office International des Epizooties
OLS	Operation Lifeline Sudan
OXFAM-GB	Oxfam Great Britain
OXFAM-QC	Oxfam Quebec
PACE	Pan African programme for the Control of Epizootics
PARC	Pan African Rinderpest Campaign

PCU	Programme Co-ordination Unit
PI	Performance Indicator
PPR	Pest des Petits Ruminants
RADCP	Regional Animal Diseases Control Project
RADISCON	Regional Animal Disease Surveillance and Control Network
RASS	Relief Association of Southern Sudan
RCOs	Regional Coordinator Offices
RVF	Rift Valley Fever
SCF-UK	Save the Children Fund – United Kingdom
SFIA	Senior Field Investigation Advisor
SPLM	Sudan People's Liberation Movement
SPLM-U	SPLM - United
SRRA	Sudan Relief and Rehabilitation Association
SSAR	South Sudan Association for Relief
SSIM	South Sudan Independence Movement
SSLM	South Sudan Liberation Movement
TCP	Technical Cooperation Program.
UNICEF	United Nations Children's Fund
VA	Veterinary Assistant
VCC	Veterinary Co-ordination Committee
VSC	Veterinary Supplies Corporation
VSF-B	Veterinaires sans Frontieres Belgium
VSF-CH	Veterinaires sans Frontieres Switzerland
VSF-G	Veterinaires sans Frontieres Germany
WFP	World Food Programme
WHO	World Health Organization

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"FIGHT AGAINST LINEAGE 1 RINDERPEST VIRUS" NORTHERN SECTOR SUB-PROJECT

1. SUMMARY

The eradication of rinderpest from Africa is a major objective of the PACE Programme. This will be achieved by a series of co-ordinated national PACE programmes that will receive support from the PACE Programme's Epidemiology Unit and other Common Services.

In common with the global framework of the PACE Programme, the "Fight against lineage 1 rinderpest virus" project in northern Sudan has the goal of reducing poverty among those involved in livestock farming and increasing productivity, thereby improving their livelihoods and enhancing food security. The purpose of this project is to develop and apply appropriate systems for animal disease surveillance and control to ensure the eradication of rinderpest, which will contribute to the Global Rinderpest Eradication Programme (GREP) and support Sudan's livestock industry and sector.

The project will have four main outputs (or results) that are aligned to the four thrusts of the global PACE Programme. These are:

Result 1:
The necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.

Result 2:
Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and medicines, in areas served by OLS-NS.

Result 3:
Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005.

Result 4:
A strong basis for the development of appropriate strategies for the control of priority epizootic diseases is in place within the Department of Animal Health and Epizootic Diseases Control.

The document describes the background of the project, intervention areas, assumptions, the implementation, and factors ensuring sustainability. It summarizes the project's main achievements realized until to-date (29/02/04), and describes the main activities planned for the period 1. May 2004 till 31st October 2004. The annex contains some complementary documentation.

The total budget allocation for the "fight against lineage 1 rinderpest virus" in Sudan amounts to € 5,317,245 out of which € 2,862,245 is allocated to the sub-project for the northern sector. AU/IBAR has procured 21 new vehicles to ensure smooth implementation of surveillance campaigns. The government of Sudan is committed to contribute to the implementation of the project by allocating local component funds covering local staff wages and salaries, provision of operation expenses, transportation, necessary logistics, project premises, laboratory capacities, duty and customs fees, and administrative and political support.

The amount of EDF funds available for envisaged project implementation until 31st October 2004 is in total € 1,200,000. The EDF funds requested for the period 1st May 2004 until 31st October 2004 amount in total to **€ 530,000**.

2. BACKGROUND

2.1 Government policy

Sudan is the largest country in Africa, covering an area of about 2.5 million square kilometers. Nine countries border it, namely: Egypt, Libya, Chad, Central African Republic, Democratic Republic of Congo, Uganda, Kenya, Ethiopia and Eritrea. Sudan has a human population of about 28 million and about 50% of the country is classified as a desert and semi desert: the remainder being high and low rainfall savannah.

The Government of Sudan (GOS) has a policy of liberalization of trade and privatization of services. The agricultural sector is at the core of its strategy for future development of the country and the privatization of animal health service delivery is encouraged.

2.2 Features of the livestock sector

Sudan's livestock sector is an important contributor to the overall national economy. With its vast rangeland grazing area and large animal population, the sector contributes approximately 25% to GDP, provides over 20% of the country's foreign exchange earnings, employs a substantial proportion of the population, and provides 40% of the nutritional intake for women and children.

The ecological diversity governs the distribution of livestock in the country. Camels and small ruminants are found in the Northern part of the country, while cattle are concentrated in the western, central, and southern parts. The total livestock population is estimated (2002) to be as follows:

Cattle:	37 million heads,
Sheep:	46 million heads,
Goats:	38 million heads,
Camel:	3 million heads,
Poultry:	36 million heads,
Equines:	3-4 million heads.

Most of these animals are kept under transhumance and pastoral management systems in the savannah belt, where the nomads and semi- nomads roam with their herds over vast areas in search of grazing and water. Cattle are mostly the zebu-beef types and sheep are mostly the long tail desert type. Both types are primarily used for meat as they have low milk production capabilities. These breeds have naturally developed over hundreds of years to survive well in the harsh environment.

In the irrigated areas of Central and Northern Sudan, the dairy industry is developing rapidly. The government supports the dairy industry in order to provide sufficient milk and reduce importation of powdered milk.

The distribution of livestock in Southern Sudan varies with the ecology of the various regions. Western Equatoria and the western part of Bahr el Ghazal are mainly rainforest and savannah forest, and are infested with tsetse fly. The main livestock kept in these areas are poultry, with small numbers of sheep and goats and very few cattle. The rest of Bahr el Ghazal, Upper Nile and Jonglei are composed of savannah forest, intersected by flood plains and swamps associated with the major rivers. These areas support agro-pastoralist tribes that keep cattle, sheep, goats and some chickens. Eastern Equatoria is mountainous to the west - supporting a mixed crop and livestock farming system, and semi-desert to the east - supporting pastoralist tribes that herd cattle and goats.

The livestock population of southern Sudan is difficult to quantify, due to the seasonal movement of livestock, the displacement of communities due to the war, frequent raiding of livestock and a cultural taboo against counting livestock. It is likely that the population has decreased significantly during the war, due to high mortality associated with rinderpest and other disease outbreaks in the 1980s and early 1990s. Sales and slaughter during the periodic famines, and heavy cattle raiding especially in Bahr el Ghazal would have further reduced the population. The Operation Lifeline Sudan (OLS) livestock programme has estimated the accessible cattle population on an annual basis; the 1999 estimate was approximately 8 million cattle. The number of sheep and goats was estimated to be about the same as the cattle population and the number of chickens was approximately twice the number of sheep and goats (16 million). There are small numbers of pigs in Western Equatoria; one tribe in eastern Upper Nile also keeps pigs.

The proportion of households owning cattle has been estimated by the food economy assessment unit (SCF-UK/WFP) and varies between regions. Very few households own cattle in Western Equatoria. In Eastern Equatoria, Upper Nile, Jonglei and Lakes regions approximately 80% of households own cattle, whilst in Northern Bahr el Ghazal approximately 60% own cattle. Livestock ownership has decreased significantly during the war in Bahr el Ghazal due to loss of livestock through raiding, disease and sale or slaughter during famine.

Livestock are an integral part of the culture and economy of the agro-pastoralist tribes of southern Sudan, and provide a major proportion of their food needs. Milk, meat and blood provide 20-60% of food needs depending on region and season of the year. Cattle are kept in large numbers as a means of storing wealth, for bartering, for marriage payments and other social obligations, and as a means of survival during times of hardship. Livestock are bartered and sold in local markets and there is an active international trade in cattle into Kenya and Uganda, and north into the transition zone of Sudan. Sheep, goats and poultry are less culturally important but make a major contribution to food security especially for the poorer members of the community.

The main livestock problems as identified by the local communities include disease, access to grazing and water sources, raiding, and access to markets. All these problems have been exacerbated by the chronic civil war. Pre-war animal health services were limited and have been completely disrupted by the war, access to traditional grazing and water sources has been restricted due to areas of conflict, and infrastructure including markets have been destroyed. In areas of relative stability some of these problems have been partly addressed as the communities have started to recover and international aid has provided assistance.

2.3 Beneficiaries and parties involved

The ultimate beneficiaries of the project are the livestock owners in different areas of Sudan. These herders are in immediate need of livestock products for their diets and as a source of income. All communities in southern Sudan keep livestock and utilize livestock products, therefore, all will be the beneficiaries of this project through reduced cattle morbidity and mortality. However, the agro-pastoralist communities, keeping large herds of cattle will receive greater benefit than their sedentary agriculturalist neighbours.

Among other beneficiaries are animal health workers at both federal and state level that are very keen to see the working conditions improving and the facilities are provided. Community-based animal health workers (CAHWs), supervisors and co-ordinators will benefit from additional training and remuneration for vaccination and surveillance. The project will actively encourage

the participation of women as animal health workers and they too are expected to be significant beneficiaries.

Private veterinarians will also directly benefit from this project since they will be encouraged to participate in its implementation.

Numerous parties will be involved in the project. The FAO-OLS northern and southern sectors work closely with their respective counterparts, the Government of Sudan's AHEADC, and SRRA, RASS and FRRA. Until 2000, in both sectors, UNICEF directly implemented the community-based programme in some areas, and co-ordinated and collaborated with partner NGOs implementing the community-based programme in the rest of the areas. In the latter part of 2000, UNICEF transferred its role in the livestock programme to FAO.

Other UN agencies are involved in southern Sudan, namely OCHA, WFP, UNDP, and WHO.

In the northern sector, this project will be implemented by the AHEDC and a project management unit (PMU) – staffed by a technical assistant recruited through a consultant contract. In the southern sector, a lead European NGO (VSF –B) working closely with the OLS livestock programme co-ordinates the southern sub-project activities. The PMU and the NGO project co-ordinator will report to the PACE Programme Co-ordination Unit at OAU/IBAR, Nairobi, which will provide regular advice to this project, make field visits, and participate in OLS co-ordination meetings. Within PACE, the CAPE project will be closely involved with OLS in the development of the community-based approach and privatization of animal health services in southern Sudan.

The Rinderpest Eradication Co-ordination Group for Sudan[1] will monitor progress, review strategy, and harmonize activities. The PACE Programme Co-ordination Unit will liaise with the FAO OLS livestock programme through quarterly livestock co-ordination meetings.

2.4 Problems to be addressed

The primary focus of this project is on the eradication of lineage 1 rinderpest virus. Widespread outbreaks of rinderpest occurred in southern Sudan in the early 1990s. The vaccination campaigns carried out by the OLS livestock programme from 1993 onwards reduced the number and severity of outbreaks to almost none. The last confirmed outbreak was in early 1998 in Torit County, Eastern Equatoria, and the last clinical case seen associated with this outbreak was in August 1998. Since that time all rinderpest rumours have been investigated and found to be either outbreaks of other diseases or false alarms. However, in early 2001, the reports from around Pibor of high mortalities in cattle with rinderpest-like clinical signs highlighted the need for urgent action.

The cattle populations in the border areas of southern Sudan move across international borders for pasture and trade. Elimination of the endemic areas in southern Sudan is therefore crucial for rinderpest eradication from the east and central Africa regions. This project aims to concentrate

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[1] OAU/IBAR will chair this group, which shall comprise the National Authorizing Officer, Head of the Department of Animal Health & Epizootic Disease Control (PACE Sudan Co-ordinator), the FAO-OLS northern and southern sector co-ordinators, the PACE Programme Co-ordinator, the Project Co-ordinator of the southern sector and the Technical Assistant Project Manager for the northern sector. The Head of the Delegation of the European Commission in Sudan shall have observer status.

disease control activities in the suspected rinderpest endemic areas of southern Sudan in order to eliminate the remaining foci and contribute to final eradication of lineage one from Africa.

In addressing the eradication of rinderpest, sustained intensive surveillance will be necessary and this action will address problems inherent in general disease surveillance, emergency preparedness and service delivery. The capacity for disease surveillance will be enhanced by the provision of training and the mobilization of government veterinary staff and CAHWs; the necessary infrastructure at the field and laboratory levels will be improved; cost recovery will promoted; and, as a combined effect of these measures, the basis will be provided for sustainable animal disease control *improved control of CBPP and, eventually, other major epizootics.*

The problem to which rinderpest contributes is the lack of food security, specifically the contribution of livestock to food security. Livestock contribution to household food security is less than it should be due to low productivity and reduced livestock ownership.

2.5 Other interventions

Government veterinary services were established in the early 1900s and have addressed all aspects of epizootic disease control, research, quarantine and animal export and import. Animal production business, dispensing of a short list of drugs, running of private veterinary clinics and dispensaries, animal marketing and other related business are undertaken by the private sector.

The Federal Ministry of Animal Resources and Fisheries (FMOAR&F) supervises veterinary activities at the national level. Twenty-six State Ministries of Agriculture and Animal Resources supervise the veterinary services at the state level. Within the FMOAR&F, the Department of Animal Health and Epizootic Diseases Control (AHEDC) is concerned with the control of epizootic diseases of economic significance to the country. The department of AH&EDC collaborates and co-ordinates with other departments and institutions, including the Animal Resources Research Corporation (ARRC) of the Federal Ministry of Science and Technology (FMOS&T), which is concerned with animal disease diagnosis, and research into specific animal diseases. The ARRC includes the Central Veterinary Research Laboratories, the Vaccine production research centre, the Animal production research centre, the Wildlife research centre and the Fisheries and aquarium research centre.

The Central Veterinary Research Laboratories produce a wide range of viral and bacterial vaccines and work with nine regional laboratories. These regional laboratories examine specimens submitted by field veterinary officers, investigate disease outbreaks, train field veterinarians and their assistants in diagnostic techniques and undertake research on specific diseases, which are common to their region.

In the 1930s, the Sudan Veterinary Service produced an inactivated rinderpest vaccine, which was popular with cattle owners. The goat adapted rinderpest vaccine was introduced from Kenya in 1949. In 1969, Sudan was included in the JP 15 rinderpest campaign, which ended in 1976. After JP 15, the peak year for rinderpest control was in 1976/77 when over 4 million cattle were vaccinated. Vaccination numbers then dropped and, between 1975 and 1979, almost all of the clinically diagnosed and confirmed cases of rinderpest were east of the Blue Nile. From 1980 to 1983, disease outbreaks were at their maximum. In 1983/84, the serious epidemic of rinderpest killed almost 500 000 cattle in Darfur and Kordofan.

In 1989, the Government of Sudan launched the Pan-African Rinderpest Campaign (PARC) in Sudan. There were several sources of finance, namely: the EDF, which covered costs of mobile units, equipment, and radio communication sets; the FAO, which provided audiovisual aids and communication inputs; IAEA, which provided sero-monitoring inputs, training and technical assistance in disease surveillance and Geographical Information System (GIS); and, the Government of Sudan (GOS), which established all infrastructures, provided veterinary equipment, salaries and wages,

and all operating costs. PARC compound was constructed in Khartoum and six more coordination units were constructed at six of the regional capitals.

The objectives of PARC-Sudan were to control and eradicate rinderpest and CBPP, and upgrade field veterinary services. PARC Sudan achieved other objectives, such as improving field veterinary services, developing viral vaccine production capabilities, upgrading extension services through implementing mass communication programme, thus bridging the gap between herders and veterinary authorities. The project provided infrastructures at the central co-ordination office at Khartoum including a viral vaccine production compound at the central veterinary research, infrastructure at regional offices, provision of vehicles, cold chain supplies, veterinary equipment for 62 mobile teams, and equipment and materials for an information unit.

The main tasks of the programme were to run: 56 rainy season vaccination teams and 86 dry season vaccination teams and nine sero-surveillance teams throughout the whole country. In addition, the project provided resources to contain all disease outbreaks reported to the co-ordination offices in Khartoum or regional offices at the state level.

All staff members were offered opportunities for training in disease control, communication, and disease reporting, surveillance, and investigation systems.

The implementation of the PARC project in the country reduced disease outbreaks significantly. The last Rinderpest outbreak in the northern Sudan was in 1991. Similar reductions in the numbers of outbreaks of other diseases were also achieved. Above all the rate of efficiency of containing of outbreaks is greatly improved.

PARC, in collaboration with UNICEF (OLS livestock programme), established a community-based animal health services approach. This dealt the delivery of veterinary services mainly in animal health and epizootic disease control in the risk areas in southern Sudan with the collaboration with NGOs.

In 1993, PARC recommended the use of a new heat stable rinderpest vaccine, which has allowed the decentralization of vaccination teams currently operating in Sudan allowing vaccination in all areas to be reached. This decentralization approach using heat stable vaccine gained recognition within PARC as the method of choice in regions that have poor infrastructures and resources.

In 1989, Operation Lifeline Sudan, a consortium of UN agencies and NGOs, started to provide emergency relief and humanitarian assistance to the war-affected communities of southern Sudan to try to prevent a repetition of the 1988 famine. OLS activities include assistance for food relief, water, human health, education, fisheries, crop production and animal health. OLS southern sector works in the areas of southern Sudan that are controlled by rebel groups, and gains access to these areas via Kenya and Uganda.

OLS northern sector works in the areas of southern Sudan that are under the control of the Government, and the Government, specifically the Department of Animal Health and Epizootic Disease Control (AH&EDC), which facilitated the implementation of PARC Sudan, is the counterpart of the northern sector livestock programme.

In recognition of the importance of livestock to food security, and therefore child nutrition, the vaccination of cattle against rinderpest became a component of the UNICEF programme. Heat labile vaccine was provided free of charge, and vaccinators were trained, equipped and monitored by one UNICEF veterinarian. The ICRC (International Committee of the Red Cross) also provided rinderpest vaccine. In 1993, UNICEF started a new programme to develop a community-based, decentralized, privatized animal health service, with technical support from Tufts University School of Veterinary Medicine. In addition to its focus on rinderpest vaccination, this programme gradually widened its activities to include control of major cattle, sheep, goat and poultry diseases. CAHWs provided treatments and vaccinations on a cost recovery basis. The UNICEF/OLS southern sector livestock programme worked in both Government and rebel-held areas until 1996.

In 1996, Tufts University provided further technical support to UNICEF/OLS northern sector to start a programme which, like the southern sector, initially focussed on training of vaccinators and rinderpest vaccination, but later increased its activities to facilitation of community-based animal health services (CAHS).

In 2000, UNICEF passed its role in the livestock programme to FAO. Currently the OLS livestock programme is composed of FAO and NGOs (twelve[2] NGOs facilitating CAHS in southern sector areas and five[3] in northern sector

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[2] ACROSS, ACORD, ADRA, DOT, NPA, Oxfam-GB, Oxfam- Quebec, SCF-UK, VSF-Belgium, VSF-Germany, VSF-Switzerland, VETWORK Sudan

[3] Oxfam –GB, Accomplish, GAA, Nile Milk Producers, El Bir

areas) and covers approximately 80% of southern Sudan. Over a thousand animal health workers have been trained and are currently active. These are supported by more than 50 FAO/NGO veterinarians/livestock professionals. FAO northern and southern sector livestock projects directly facilitate CAHS projects in certain areas of southern Sudan and provide a lead agency co-ordination role for the NGOs participating in the programme. The FAO livestock projects are funded mainly from emergency funds from several donor governments. The NGO projects facilitate CAHS projects in complementary areas of southern Sudan and one NGO, VSF-B provides training for mid-level animal health personnel. Funds for the NGO projects are secured by individual NGOs from a variety of donors. The FAO livestock project provides some material and technical support to the NGOs, including vaccines and vaccination equipment.

Since 1993, more than 7.5 million cattle have been vaccinated against rinderpest, an average of more than 1 million vaccinations per year. Efficacy of vaccination has been monitored to a limited extent in southern sector through collection of sera from cattle camps where vaccination has been carried out. The National Veterinary Laboratory, Muguga, Kenya, used ELISA tests to detect the presence of rinderpest antibody. Although the sample size is small, the results indicate that vaccine handling and injection is being carried out effectively by CAHWs. The percentage of sero-positive animals averaged 76% compared to 31% in unvaccinated animals.

The Government of Sudan has launched numerous other interventions in the livestock sector aimed at controlling animal health problems and promoting the livestock sector. These include:

i FAO Technical Cooperation Project (TCP) for Brucellosis Surveillance and Control in dairy cattle in Gezira and Khartoum state, 1997 to 1999.

ii FAO Technical Cooperation Project (TCP) for Screw worm 1990-1993.

iii Regional Animal Diseases Surveillance and Control Network (RADISCON): supported by FAO

iv Rift Valley fever (RVF) surveillance and control:
Following the epidemic of RVF in East Africa (Kenya, Somalia) in December 1997, the National Zoonotic Diseases Committee (NZDC) called for the mobilization of resources to implement disease emergency preparedness. Recently FAO supported the preliminary steps for the establishment of RVF surveillance unit in Sudan.

v UNDP-financed Area Development Scheme (ADS) has an animal health component for the development of six selected areas in different parts of the country

vi UNDP-financed Area Rehabilitation Scheme (ARS) has an animal health component for the rehabilitation of services in the war-affected areas.

vii Veterinary Centres Project: The Islamic Development Bank finances the project to establish ten veterinary centres in the highly animal populated areas in Sudan..

viii Zoonotic Diseases Control Programme: A joint programme with the Ministry of Health and with the collaboration of the WHO for the control of communicable diseases in the country.

ix Geographical Information System (GIS) Programme: The International Atomic Energy Agency (IAEA) assisted the establishment of a GIS unit at the Department of Animal Health and Epizootic Disease Control. Staff received training abroad and the IAEA provided equipment and software, and continues to provide backup and technical support.

3. INTERVENTION

3.1 Overall objective

In common with the global framework of the PACE Programme, the "Fight against lineage 1 rinderpest virus" project has the goal of reducing poverty among those involved in livestock farming and increasing productivity, thereby improving their livelihoods and enhancing food security.

3.2 Purpose

The purpose of the OAU/IBAR's project for the Fight against lineage 1 rinderpest virus in Sudan is to develop and apply appropriate systems for animal disease surveillance and control to ensure the eradication of rinderpest, thereby supporting Sudan's livestock industry and sector.

3.3 Results

The project will have four main outputs (or results) that are aligned to the four thrusts of the global PACE Programme. These are:

Result 1:
The necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.

Result 2:
Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and medicines, in areas served by OLS-NS.

Result 3:
Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005.

Result 4:
A strong basis for the development of appropriate strate43gies for the control of priority epizootic diseases is in place within the Department of Animal Health and Epizootic Diseases Control.

3.4 Main activities of the fight against rinderpest in northern Sudan

3.4.1 Result 1: Development of necessary capacities

To establish the necessary capacities for effective project management and the national epidemio-surveillance network, on a sustainable basis, the project will undertake the following activities:

3.4.1.1 Project management unit

OAU/IBAR will recruit an international technical assistant to establish a project management unit at the AHEDC department. In addition to ensuring the administration and management of the project in compliance with the procedures of the EDF, this unit will support:

- improvement of diagnostic capacities and disease surveillance tools,

- streamlining the disease reporting system, between the field and headquarters and promoting information dissemination,
- the development of communication,
- the organization of skills-oriented training where required, including the local training of animal health staff in such subjects as emergency preparedness, disease reporting and disease surveillance techniques,
- limited study tours related to the OIE pathway for rinderpest eradication, training in the Africa region related to laboratory techniques, epidemiology, livestock economics, information management/GIS techniques, and wildlife epidemiology.
- the participation of senior government staff at regional PACE meetings and workshops

3.4.1.2 Veterinary field investigations and disease reporting

The project will provide limited support for veterinary field investigations in selected areas defined in approved work programmes. These investigations would provide fuller information on the distribution and prevalence of livestock diseases, with the emphasis being placed on the surveillance of rinderpest (see below).

To ensure that the project can adequately support investigations of emergency situations and highly suspicious rumours of rinderpest-like diseases, and to overcome the well-known constraint of timely access, the project will have a specific provision for chartering aircraft for field investigation and support teams.

3.4.1.3 Veterinary diagnostics

To improve veterinary diagnostics, the project will provide appropriate support (within budgetary limits) to the nine satellite laboratories localized at the livestock potential areas. They will process samples collected from the field for onward despatch to Soba Central Veterinary Laboratory where standardized serological tests (ELISA) for the diagnosis of rinderpest will be performed. The project will assist with the provision of standardized reagents.

The Soba laboratory will be encouraged to exchange samples with other laboratories in the region's diagnostic network and, as the need arises send samples to the world reference laboratories for confirmatory diagnosis and virus characterization.

3.4.1.4 Epidemiological Unit

The project will support the establishment of an effective Epidemiological Unit, whose staff will comprise a team leader, a field investigation officer, statistician/epidemiologist, communication and liaison officer, disease mapping specialist and data entry assistant. The unit's GIS capability will be strengthened and the reporting format and production of maps will be updated.

The Epidemiological Unit will lay the foundation for a **D**isease **M**onitoring and **E**valuation **U**nit (**DMEU**) at the **AHEADC**. In the long-term, the **DMEU** would develop epidemiological and economic analysis capabilities to establish a database and an appropriate order of priorities for future programmes to control animal diseases. In particular the **DMEU** would:

- improve the existing reporting system for major diseases using both field and meat inspection services data and information.

- conduct epidemiological and economic analysis of the significance of major diseases in relation to livestock production and management.
- provide basis for policy formulation, including legislation in relation to disease control.
- monitor and evaluate on-going disease control measures.

3.4.2 Result 2: Development of community-based systems

3.4.2.1 Community-based systems

In northern Sudan, the project's support for the improvement of veterinary and animal health services will be limited to the development of community-based systems that are effective in delivery of co-ordinated preventive and curative veterinary services and medicines, in areas served by OLS-NS.

Government-funded activities such as the organization of vaccination campaigns, the consolidation of private veterinary practice, review of veterinary legislation, and promotion of pastoralist associations will complement the project's activities in this area.

3.4.3 Result 3: Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005.

3.4.3.1 Introduction

The project will focus on rinderpest eradication. Active clinical and serological searches will be expanded countrywide, in livestock and wildlife, to comply with the requirements of the OIE pathway. A national emergency preparedness plan will be kept updated.

The role of the "cordon sanitaire" will be reviewed, and intensive surveillance will be continued, based on active disease search and improved livestock movement monitoring and control. In support of these activities, diagnostic capacities of regional and central laboratories will be enhanced (see Result 1 above).

As part of the FAO/OLS Northern Sector Livestock Programme and with the support of the Swedish Government, the Emergency Unit/FAO/Sudan and PARC/Sudan hosted the 5th Livestock Co-ordination Workshop, May 27 – 31, 2001 in Khartoum. The meeting had agreed upon a strategy, which redefined zones for the purpose of rinderpest eradication and aimed at ceasing of vaccination in Zone B by the end of December 2001 and in Zone C by the end of June 2002, respectively. This zonal strategy was adopted from 1 January 2002. The Zones were defined as follows (see graph. 1):

- **ZONE A 'Provisionally-free Zone':**
  All of the country except for the 'Infected' and 'Surveillance' Zones

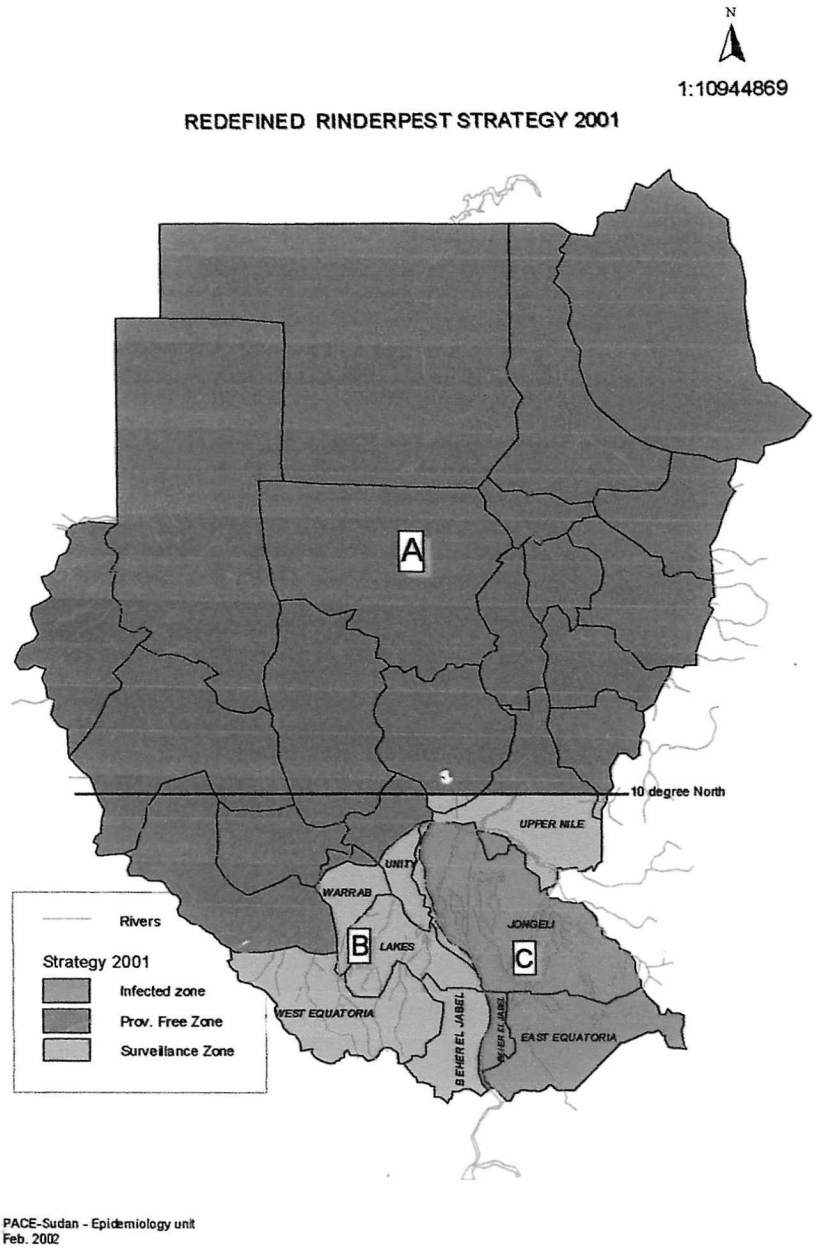
- **ZONE B: 'Surveillance Zone':**

Jonglei province; Upper Nile province south of latitude 10^0 North and north of the Sobat River; Unity and Warab provinces south of the Bahr al Gazal and Jur Rivers; Lakes province; Western Equatoria province and Bahar al Jabal province west of the White Nile River (Bahr al Jabal).

- **ZONE C: 'Infected Zone'**

Eastern Equatoria province; Bahar aj Jabal province east of the White Nile River Bahr al Jabal; Jonglei Province; Upper Nile province south of the Sobat River.

Graph 1: Strategic zones for eradication of rinderpest in Sudan (situation in 2001)



The declaration of the strategy modification and the extension of the provisional free zone was raised to OIE and appeared in the OIE Disease Information release Vol 15-No. 11 dated 15 March 2002.

By the end of December 2001 all rinderpest vaccination ceased in **Zone A** and **B** and by the end of June 2002 rinderpest vaccination ceased in **Zone C** also, and by this date rinderpest vaccination ceased in the whole country and routine and sustained system of active disease surveillance is in place.

3.4.3.2 Present situation

Sudan continued to progress along the OIE pathway and updated its OIE declaration of provisional freedom from rinderpest disease on a zonal basis.

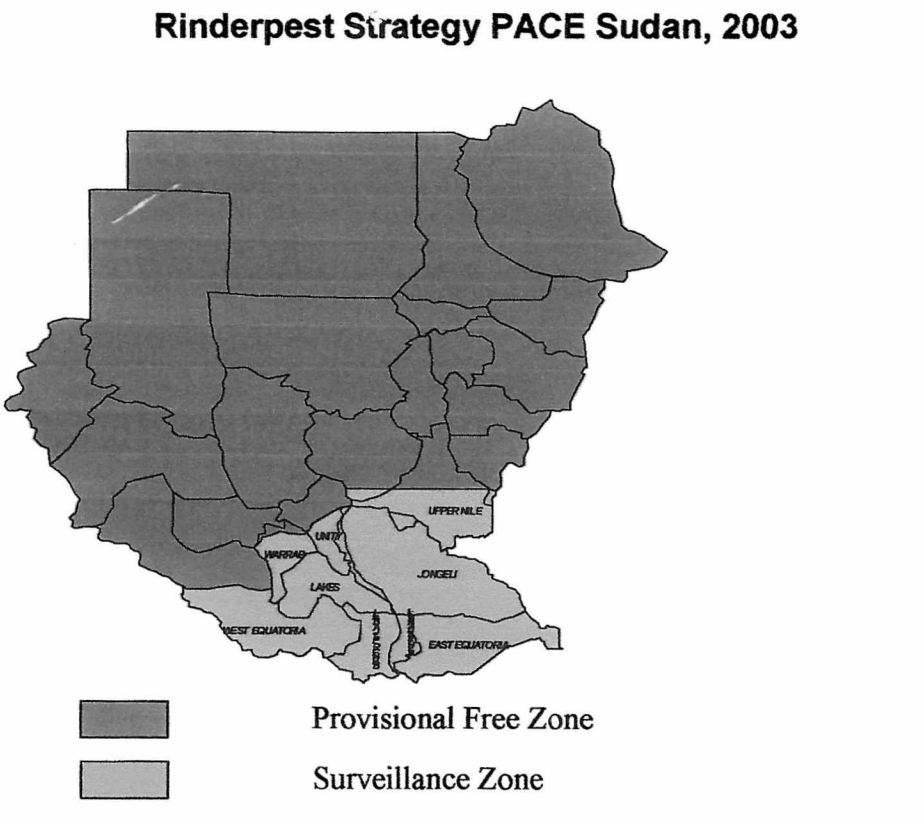
Based on the previous declaration made to the OIE which included 3 zones (see: above chapter 3.4.3.1), and since no confirmed incidences of rinderpest have been reported since 1998, and after close consultation with AU/IBAR, Nairobi, the following modified strategy was adopted (see graph 2):

The infected zone (zone C) became part of the surveillance zone. Thus, only two zones were considered, as detailed below:
Zone A: the "provisionally free zone": Includes all the country except for the "surveillance zone".

Zone B: the "surveillance zone": Includes Upper Nile State south of latitude 10^0 N , Unity and Warap States South of Bahr al Gazal and Jur Rivers , Jonglei, Lakes, Western Equatoria, Bahr al Jebel and Eastern Equatoria States.

In accordance with the provisions of article 2.1.4.4 and the requirements contained in appendixes 3.8.1 and 3.8.2 of the International Animal Health Code, **the above specified Zone A continues to be declared provisionally free from rinderpest and the specified Zone B is considered a surveillance zone effective as of 30th June 2003.** This was raised to OIE for consideration in August 2003 and appeared in the OIE Disease Information Release Vol.16, No.35 dated 29 August 2003.

Graph. 2: Sudan's zonal strategy for declaration of provisional freedom from rinderpest



3.4.3.3 Logistical support

AU/IBAR has procured (21) new 4WD-vehicles to ensure a smooth implementation of the surveillance campaigns. The vehicles arrived at the FMAR&F in Khartoum in November 2004. The vehicles have been assigned for clinical, sero-surveillance, PDS, PID and other veterinary activities in the whole country. (15) vehicles will managed centralized by the AH&EDC Departement Soba, and (6) vehicles will be managed by state veterinary departments. Table 1 shows the distribution of (21) new PACE vehicles (column 2) in relation to vehicles currently available for disease surveillance and veterinary field activities.

Table 1: Distribution of (21) new PACE vehicles procured by AU/IBAR in relation to vehicles available for disease surveillance & veterinary field activities

Region	New PACE vehicles	GOS mobile vet. Units	GOS/ IBD mobile vet. units	Other mobile vet. units	TOTAL
Khartoum, AH&EDC Department	6	1			7
Khartoum, CVRL	1	1			2
Northern & Khartoum	1	7			8
Eastern	1	6	1		8
Central	2	13	2		17
Kordofan	2	10	3	4	19
Dafour	2	14	3		19
Upper Nile	2	8	1	2	13
Bahr El Ghazal	2	4			6
Equatoria	2	4			6
TOTAL	**21**	**68**	**10**	**6**	**105**

The Government of Sudan will continue to offer these vehicles the necessary protection and will ensure that they will only be used for the designated and approved activities.

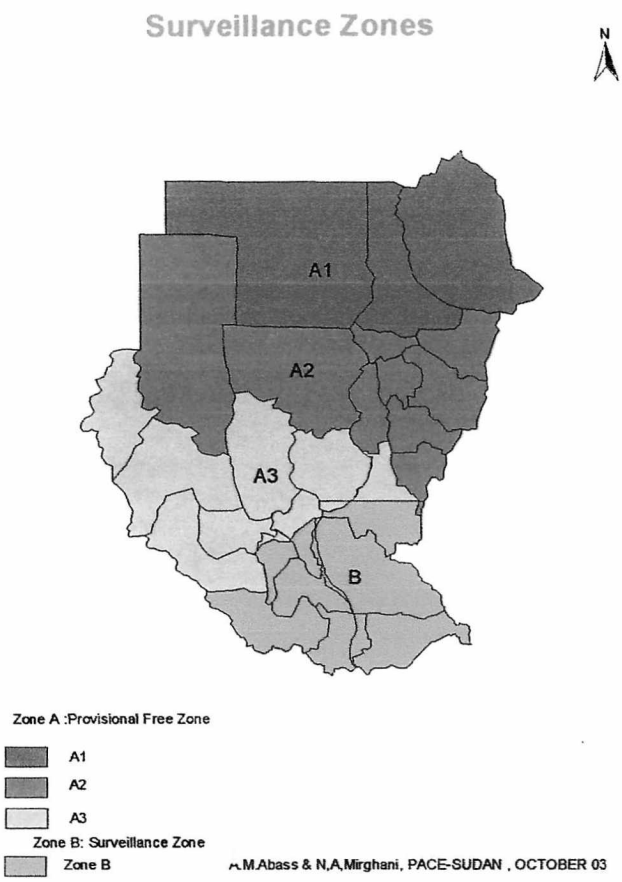
In the operational areas of OLS-NS, the project will supply the CAHW with materials, limited equipment and the necessary training in such subjects as disease recognition, basic animal health care, communications, and reporting.

3.4.3.4 Rinderpest monitoring and surveillance

Rinderpest monitoring and surveillance will be continued and expanded under the PACE project to meet the requirements of OIE pathway until the presence of rinderpest in Sudan can be ruled out. As the whole process is scheduled to last five Rinderpest, monitoring and surveillance will be continued and expanded under the years, and will have to be thoroughly sustained after the project.

It has been planned to start sero-surveillance in the most northern part of the provisionally free zone. The following surveys will be carried out (see graph 3):

- Zones A1, A2 and A3 will be sampled as one population in mid-2004 to mid-2005;
- Zones A3 and B will be sampled as one population in mid-2005 to mid-2006.



Graph 3: Rinderpest sero-surveillance zones in Sudan

3.4.4 Result 4: Strategy development for control of other epizootics

3.4.4.1 Surveillance of CBPP

The project will assist in the monitoring and surveillance of CBPP and other epidemic diseases, to the level possible and necessary for the formulation of tentative control strategies. This will entail serological and pathological disease searches, and prevalence assessment countrywide, including abattoir and specific surveys to identify infected areas. Small quantities of equipment will be procured and support will be provided for the improvement of diseases diagnostic capabilities and capacities in regional and national laboratories. For greater efficiency in the use of resources, CBPP surveillance will be conducted at the same time as rinderepst surveillance whenever possible. The results of this surveillance will be supplemented by results of CBPP surveillance conducted at markets and abattoirs and along stock routes.

Other activities will include collection of epidemiological data from pilot areas for economic assessment. The analysis of the disease data will help in development of disease control strategy.

The Government of Sudan will continue to fund vaccination programmes against several major epidemic diseases (mainly the bacterial diseases), following the specific disease control strategy within the national strategy of animal health and epizootic disease control.

4. ASSUMPTIONS

4.1 Assumptions at different levels

4.1.1 Assumptions to the project goal

It is assumed that the growth in the supply of animal products continues and that climatic conditions remain favourable to livestock and crop production. Information from the Central statistical bureau and the reports of the meteorological department will be the sources of verification.

In a project of this scale, the national and regional political situation should remain stable throughout the period of the PACE Programme. OAU and UN reports will provide relevant information on this important assumption.

4.1.2 Assumptions from results to the project purpose

For the results to contribute to the project purpose it is assumed that:

- Government remains committed to providing sufficient financial resources to meet the full recurrent costs of epidemio-surveillance by 2003/2004.
- Funds for approved budgets (EDF and GoS) are released promptly.
- Skilled staff are retained in the appropriate posts for which they are trained and experienced.
- The general development of the livestock sector supports the sustainable delivery of animal health services.
- Farmers are prepared to pay increasingly for services and medicines/vaccines.
- Government policy remains supportive of increased role of the private sector in the delivery of veterinary services and it is implemented effectively; appropriate legislation defining tasks and responsibilities of public and private veterinary services is drafted and endorsed.
- With regard to the eradication of rinderpest, the security conditions throughout the country permit effective disease surveillance and timely responses to reports of rinderpest outbreaks.
- All PACE member countries continue to support OAU/IBARs' harmonization of cross-border disease surveillance and control measures in eastern and central Africa.
- Reliable diagnostic methods are effectively transferred to the Central Veterinary Laboratory (CVL) Soba.

4.1.3 Preconditions

It is a precondition that the required level of government services needed to implement the project are already in place and are functioning effectively.

In the international context, Sudan's international relations should remain conducive to project implementation and international trade in livestock and animal products.

FAO, OLS and the NGOs operating in OLS areas receive collateral funding for their core activities and retain an effective presence in areas of importance to the PACE project.

The Central Veterinary Laboratory in Soba and the regional reference laboratory in Kenya will maintain their capability to test samples for rinderpest by serology and virus isolation, and carry out differential diagnosis and will submit results received in a timely manner. Similarly, laboratory support for CBPP diagnosis should be available with the East African region.

4.2 Risks and flexibility

There is a risk that rinderpest will recur from areas in neighbouring countries. The OAU/IBAR, through the PACE Programme will maintain and strengthen cross-border harmonization to ensure complementary and mutually supportive surveillance, particularly in contiguous areas.

Institutional factors may adversely affect project organization and implementation but the project managers and the OAU/IBAR will mitigate this by actively maintaining close liaison and co-ordination with all partners. The regular co-ordination meetings of FAO-OLS will provide an important forum for co-ordination of activities between the northern and southern sectors that will receive project support.

The "Fight against lineage 1 rinderpest virus" project will liaise closely with the OLS livestock programme, which is co-ordinated by FAO. It will depend on the full participation of FAO livestock staff and the co-operation of the OLS NGOs. The project will be at serious risk if the FAO-OLS livestock activities or the individual NGO projects do not receive adequate funding. The main sources of funds for FAO-OLS and NGOs are donor emergency funds, which are often for short periods. To minimize this risk, FAO seeks to obtain funds from a wide range of donors and attempts to obtain longer term funding for its core activities.

5. IMPLEMENTATION

5.1 Physical and non-physical means

The "Fight against lineage 1rinderpest virus" will be implemented as two sub-projects that will be co-ordinated by OAU/IBAR through the PACE Programme Co-ordination Unit in Nairobi. Both sub-projects will receive support from the PACE Common Services Units, as necessary and on request.

In the northern sector, the German Government agency for international development (GTZ) will provide a technical assistant to establish and manage a project management unit (PMU). The PMU will purchase equipment and materials required for disease surveillance and will meet the running costs of the project's field operations in the northern sector. In addition to field activities, the project will meet the costs of workshops and training courses for veterinary personnel and will

meet the travel costs of senior government veterinary personnel and selected staff of NGOs who will participate in PACE regional meetings and workshops.

The Regional Authorizing Officer (the Director of OAU/IBAR) will purchase vehicles for use on the northern sector after international tender. The vehicles will be delivered to Khartoum and will be paid for from a separate commitment.

The project will adopt guidelines on rinderpest surveillance and control [4] published by the FAO (Food and Agriculture Organization) and the IAEA (International Atomic Energy Agency) and will assist Sudan to follow the OIE pathway. The units of the PACE Programme's Common Services will provide support to both components of the project. In particular, the PACE Epidemiology Unit will assist in strengthening surveillance networks in Sudan, and the associated border areas of Ethiopia, Kenya and Uganda. A *cordon sanitaire*, which consists of a vaccination belt bounded by the eastern parts of Chad and the Central African Republic on one side and western Sudan on the other, was established during the PARC programme. Its purpose is to provide a buffer between the rinderpest foci in eastern Africa and the countries of Central/West Africa where there is reason to believe that rinderpest no longer occurs. However, the cordon's effectiveness will be re-evaluated on the basis of costs and benefits.

5.2. Organization and implementation procedures

Through the PACE Programme Co-ordination Unit in Nairobi, OAU/IBAR will co-ordinate the two sub-projects in the northern and southern sectors of Sudan and will ensure close collaboration with the FAO-OLS livestock programme.

A memorandum of understanding will be agreed between the OAU/IBAR, the Government of Sudan and the Delegation of the European Commission in Sudan to promote collaboration and clearly define roles and responsibilities in the co-ordination and implementation of the project activities.

The programme will be implemented on the basis of the work programmes and cost estimates and in consultation with the Rinderpest Eradication Co-ordination Group for Sudan[5], which will to monitor progress, review strategy, and harmonize activities. The Group will meet twice a year, normally immediately before the OLS livestock co-ordination meetings.

In northern Sudan, a technical assistant has been provided through a technical assistance contract to head a project management unit (PMU) and he will engage local administrative support staff. The PMU will work in close, constant consultation with the Department of Animal Health and Epizootic Diseases Control (DAH&EDC) that will provide premises for the PMU.

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[4] Examples are: Manual on the diagnosis of rinderpest; Recommended procedures for disease and serological surveillance as part of the Global Rinderpest Eradication Programme; Guidelines for the use of performance indicators in rinderpest surveillance programmes; Manual on the preparation of rinderpest contingency plans.

[5] OAU/IBAR will chair this group, which shall comprise the National Authorizing Officer, Head of the Department of Animal Health & Epizootic Disease Control (PACE Sudan Co-ordinator), the FAO-OLS northern and southern sector co-ordinators, the PACE Programme Co-ordinator, the Project Co-ordinator of the southern sector and the Technical Assistant Project Manager for the northern sector. The Head of the Delegation of the European Commission in Sudan shall have observer status.

In close consultation with the staff of the DAH&EDC, the technical assistant will develop annual work programmes and cost estimates for inclusion in the consolidated work programmes that the PACE PCU prepares. The work programme will be approved by the NAO & EC Delegation in Khartoum and the PACE PCU, before being authorized by the RAO and endorsed by the Lead Delegation of the EC in Kenya.

The PMU will support the activities agreed in successive work programmes that will be undertaken by the staff of the Department of Animal Health & Epizootic Diseases Control, the Central Veterinary Laboratory, designated regional laboratories, and veterinary field staff. In addition, the PMU will support specific activities of the NGOs that work in the northern sector within the framework of the FAO-OLS livestock programme. Essential equipment, material and reagents will be purchased in accordance with EDF procedures and the sub-project's running costs will be met from the appropriate budget lines. Provision will be made for charter flights to ensure timely access to remote areas.

5.3 Timetable

The implementation of the project will begin in the north with the arrival of the technical assistant in Khartoum. The first year's work programme would be prepared for each project component within a three-month inception period. The project will end on 31 October 2004.

5.4 Costs and financing plan

The PACE Programme's indicative budget for the "Fight against lineage 1 rinderpest virus" in the northern sectors of Sudan amounts to in total € 2,862,245 (See Annex: Budget Overview for Distribution of EDF Funds).

The Government of Sudan has approved increasing annual budget allocations to meet the recurrent costs of animal disease surveillance from the recurrent and development budget lines. The total allocation for the four years of the project is SL 13 975 million (Sudanese pound).

5.5 Special conditions/accompanying measures taken by the government

The "Fight against lineage 1 rinderpest virus" project will comply with the special conditions of the financing agreement of the PACE Programme and, broadly, with those of the memorandum of understanding between the Regional Authorizing Officer (the Director of OAU/IBAR) and each PACE member country.

The Government of Sudan shall respect the following prerequisites:

- the commitment to enter and follow the OIE rinderpest pathway;
- continuation of the process of privatization of veterinary medicine and full cost recovery;
- to ensure long-term sustainability, progressively increase government financial commitments to meet the full recurrent costs of a functional and effective epidemio-surveillance network at national level, which shall be linked effectively to regional and continental networks; and
- undertake continuous environmental impact of stockbreeding management and its impact on rangeland conditions

The Government of Sudan will continue its support for the eradication of rinderpest from the whole of Sudan and is committed to following the OIE pathway recommendations until completion.

6. FACTORS ENSURING SUSTAINABILITY

6.1 Support policies

The legislation of the Government of Sudan and SPLM are supportive of the objectives of the project. The policies related to the livestock sector favour the development of private sector players in the delivery of animal health services, which, in the long-term, will ensure greater sustainability of service provision at the level of the livestock owner.

6.2 Appropriate technologies

The project will ensure the use of appropriate international standards required to verify the absence of rinderpest, which will ensure that Sudan is well positioned on the OIE pathway for the declaration of freedom from rinderpest. The project will promote existing local knowledge of animal health and management and utilize the most beneficial practices in conjunction with introduced technologies appropriate to local conditions.

6.3 Environmental protection measures

Through its emphasis on good practices, including the provision of training in the correct handling and dosing of animal health products, the project will promote the safe use of drugs and safe disposal of expired/unusable medicines, vaccines, and equipment. The choice of appropriate medicines for supply into southern Sudan includes a consideration of its environmental impact *e.g.* choice of ectoparasiticides.

It is considered that the transhumant livestock management system practised in most areas of southern Sudan and the extensive husbandry systems in northern Sudan are the most sustainable method of utilization of the grazing resources.

6.4 Socio-cultural aspects: women and development

Virtually all rural families own cattle and other domestic animals, so that the benefits of improved disease control would be widespread. The end beneficiaries of the project are the livestock owners and the project will promote community participation at all stages of the project. Regular community meetings and workshops will be held, and community members will receive training and support to carry out and manage the main project activities. Participatory methods will be used during meetings, workshops and training courses and will build on the existing knowledge of the livestock owners, and on ethno-veterinary knowledge.

6.5 Institutional and management capacity

The project aims to assist in building capacity at all levels of animal health service provision.

6.6 Economic and financial analyses

Through the control of epidemics, the project will assist the Federal Ministry of Animal Resources to reduce technical barriers that affect exports, thereby increasing foreign exchange earnings and the availability of financial resources for livestock development.

The objective of the global eradication of rinderpest requires the eradication of the disease from southern Sudan and the project costs can be regarded as an important contribution to this overall goal. The costs are justifiable since the project will safeguard the investment made under the PARC programme and will complement other initiatives all of which contribute to the global rinderpest eradication programme (GREP), which, as the name implies, aims at the permanent relief of a major threat to sustainable cattle production.

7. MONITORING AND EVALUATION

7.1 Definition of indicators

Indicators will be developed at different levels. At the technical level, standard international performance indicators will be adopted and transferred for use during and after the project to measure the sensitivity, specificity and timeliness of the rinderpest surveillance system. For example, the rinderpest status will be assessed by reference to the results of surveillance for which indicators have been proposed. The results of laboratory tests will be assessed by reference to performance indicators.

Indicators will be developed and applied to assess the performance of project personnel and these will be linked to project monitoring. CAHWs, supervisors, NGOs and FAO will monitor project activities quantitatively using standard data collection forms. Data on surveillance, treatments, vaccination, and revenue will be collated in a database, the design of which will incorporate specifications provided by the PACE Data Management Unit. Local project activities will be reported in narrative reports prepared by field veterinarians, NGOs and FAO including meetings, workshops, training courses held and activities carried out.

Participatory methods will be used to assess impact of activities on incidence of diseases and effectiveness of animal health service coverage. This will be done regularly during the project so that activities can be adjusted accordingly.

Provisional indicators are shown in Table 1 next page.

7.2 Reviews/evaluation

The PACE Programme will have a mid-term evaluation at the end of its second year (November 2001), and six months before it ends, *i.e.* April 2004 (PACE will end on 31 October 2004). The evaluation of this project will be linked to the overall evaluation, although since delays occurred in launching it, other arrangements might be made for its evaluation.

Project staff will regularly interact with PACE advisors in the region and facilitate their field visits, allowing frequent evaluation of the project.

Table 1: Performance Indicators for Rinderpest Eradication Activities

Title	Performance Indicator (GREP recommendation)	Performance Indicator (adapted for southern Sudan)
General disease surveillance	1. Number of districts forwarding general disease reporting formats within 30 days at least 10 months of the year per total number of districts.	1. Number of counties/districts forwarding monthly disease reports to FAO, Lokichoggio within 30 days at least 10 months of the year per total number of counties/districts.
Active disease search	2. Number of districts surveyed using active disease search techniques with results reported within 90 days per total number of districts	2. Number of counties/districts surveyed using active disease search techniques (to be developed) with preliminary results radio-reported to the NGO, Lokichoggio within 7 days; on report form within 60 days.
Active disease reporting	3. Number of reports of stomatitis-enteritis received, recorded and forwarded within 30 days per 100,000 heads of susceptible species	3. Number of reports of stomatitis-enteritis received, recorded and radio-reported to the NGO, Lokichoggio within 7 days; on report form within 30 days.
Stomatitis-enteritis outbreak investigation	4. Number of reports of stomatitis – enteritis investigated and appropriately sampled by a veterinary professional trained in rinderpest surveillance within 7 days of report per 100,000 heads of susceptible species	4. Number of reports of stomatitis-enteritis investigated and appropriately sampled by an animal health auxiliary (or higher) within 7 days of report per 100,000 head of cattle.
Preliminary rinderpest diagnostic testing	5. Number of cases examined by rinderpest antigen, serological, immunohistopathological and/or RNA detection techniques with preliminary results reported within 3 days of receipt of samples per 100,000 heads of susceptible species	5. Number of cases examined by rinderpest antigen detection techniques with preliminary results reported within 3 days of receipt of samples per 100,000 heads of cattle.
Stomatitis-enteritis case definitive diagnosis	6. Number of stomatitis-enteritis cases diagnosed definitively by laboratory methods at national and/or reference laboratories within 60 days of receipt of samples per 100,000 heads of susceptible species (e.g. RP, BVD, MCF, ECF, etc.)	6. Number of stomatitis-enteritis cases diagnosed definitively by laboratory methods at reference laboratories within 60 days of receipt of samples per 100,000 heads of cattle.
Serosurveillance	7. Number of serum samples collected and tested with results reported within 120 days of collection per total number of populations identified in the country.	7. Number of serum samples collected and tested with results reported within 120 days of collections per total number of populations in the country (will apply in year four and five).
Wildlife surveillance	8. Number of serum samples collected and tested with results reported within 90 days of collection per thousand heads of susceptible species.	8. Number of serum samples collected and tested with results reported within 90 days of collection per thousand heads of susceptible species.

8.0 ACHIEVEMENTS DURING IMPLEMENTATION OF WP&CE

(Period: 01/07/03 – 30/04/04)

8.1 Summary

The PACE Sudan northern sector sub-project started at the Department of Animal Health & Epizootic Diseases Control (AH&EDC), Federal Ministry of Animal Resources and Fisheries (FMAR&F) in February 2003, and has made good progress since then.

Effective management structures (PMU, Technical Committee, Steering Committee, Task Force Groups) and good communication channels with all relevant partners (FMAR&F, EC Delegation, NAO, AU/IBAR, FAO-OLS, NGOs, etc.) have been established. The counterparts are highly dedicated to the PACE programme.

The PACE project has strengthened the existing disease surveillance network. It facilitated field missions and coordination meetings for rinderpest surveillance activities at central & state level, and improved the communication between Soba head quarter and state PACE offices.

The PACE Integrated Database (PID) and the Participatory Diseases Search (PDS) have been introduced in Sudan.

In August 2003, the Sudan OIE Rinderpest dossier was up-dated based on an extension of the provisionally free- and surveillance zone; the former infected zone became part of the current surveillance zone.

(2) strategy workshops on CBPP and CAHWs, and (3) national training workshops on PID, PDS, and economical impact assessment of animal diseases were conducted in close collaboration with PACE AU/IBAR Nairobi.

The project provided test kits for rinderpest and stomatitis/enteritis diagnosing, communication-, veterinary- and other equipment for improvement of diseases surveillance.

Furthermore, the project supported the participation of senior government officers in regional PACE meetings and workshops.

The PMU at the AH&EDC Department in Soba contributed effectively with accounting, procurement and logistic support to the overall project implementation.

The total EDF funds spent since 01/07/03 amount to about € 275,000 (= 40% fund utilization).

The document also displays main activities planned during next reporting period.

8.2. Progress Achieved by Results

8.2.1 Result 1

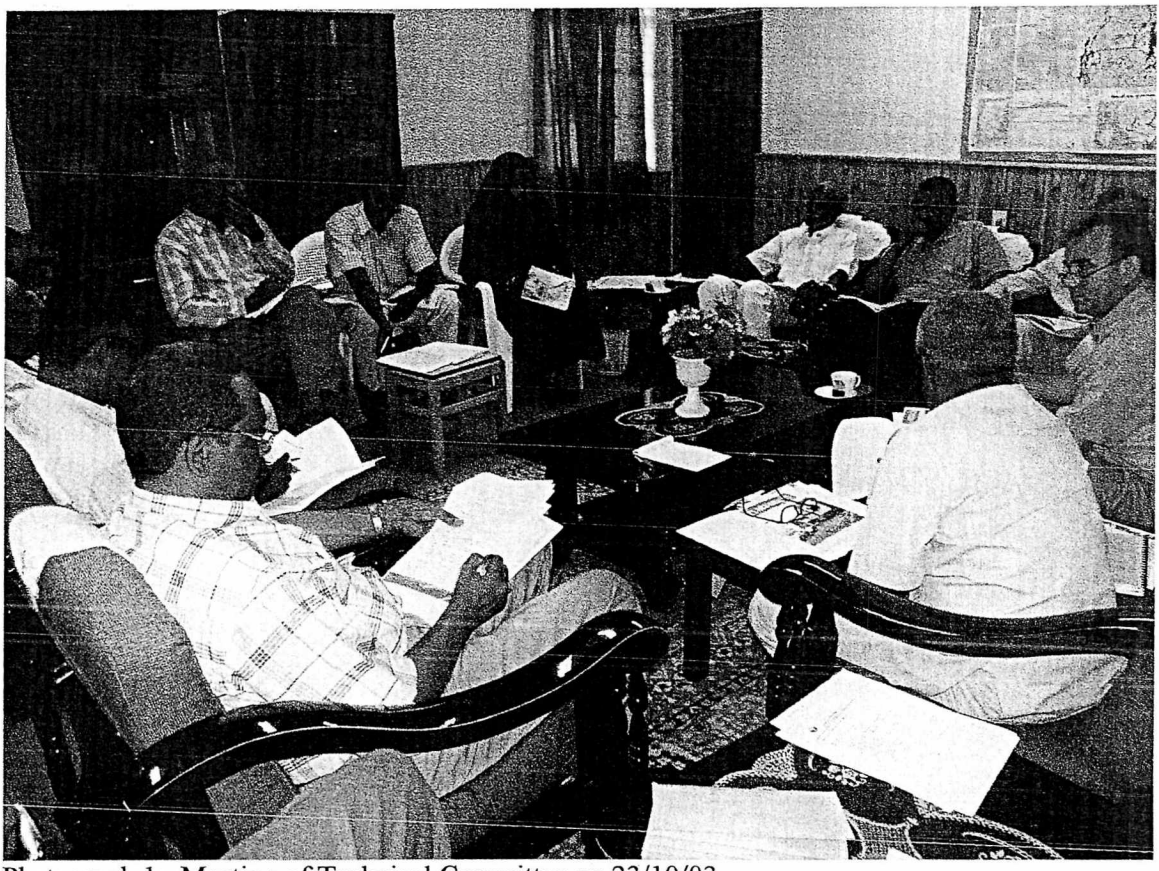
Necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.

Project Management Unit

The PMU has been operating effectively throughout the reporting period and facilitated procurement, accounting and the overall project implementation. For effective and transparent project management, (7) Technical Committee[6] meetings (See: photograph below) and (2)

[6] The **Technical Committee**, consisting of ten members (PACE National Coordinator, PACE T.A., relevant directors of AH&EDC Department, representative of FAO-OLS NS and representative of Animal Resources Research Corporation), assists the project management in decision making on relevant technical subjects aiming at a smooth and effective implementation of the approved WP&CE.

Steering Committee meetings were conducted which had been followed-up by day-to-day meetings with relevant staff at head quarter- and state level.



Photograph 1: Meeting of Technical Committee on 23/10/03

Temporary task force groups have been formed and elaborated the following documents:

- Memorandum of Understanding (MoU) between AH&EDC Department and the Central Veterinary Research Laboratory (CVRL) that defines role & responsibility for eradication of Rinderpest disease
- Concept for the establishment of a Disease Monitoring & Evaluation Unit.
- Up-dated Sudan OIE Rinderpest dossier (see Result 3),
- PACE News Letter No.1

Additional, the following other main activity areas of PMU should be highlighted:

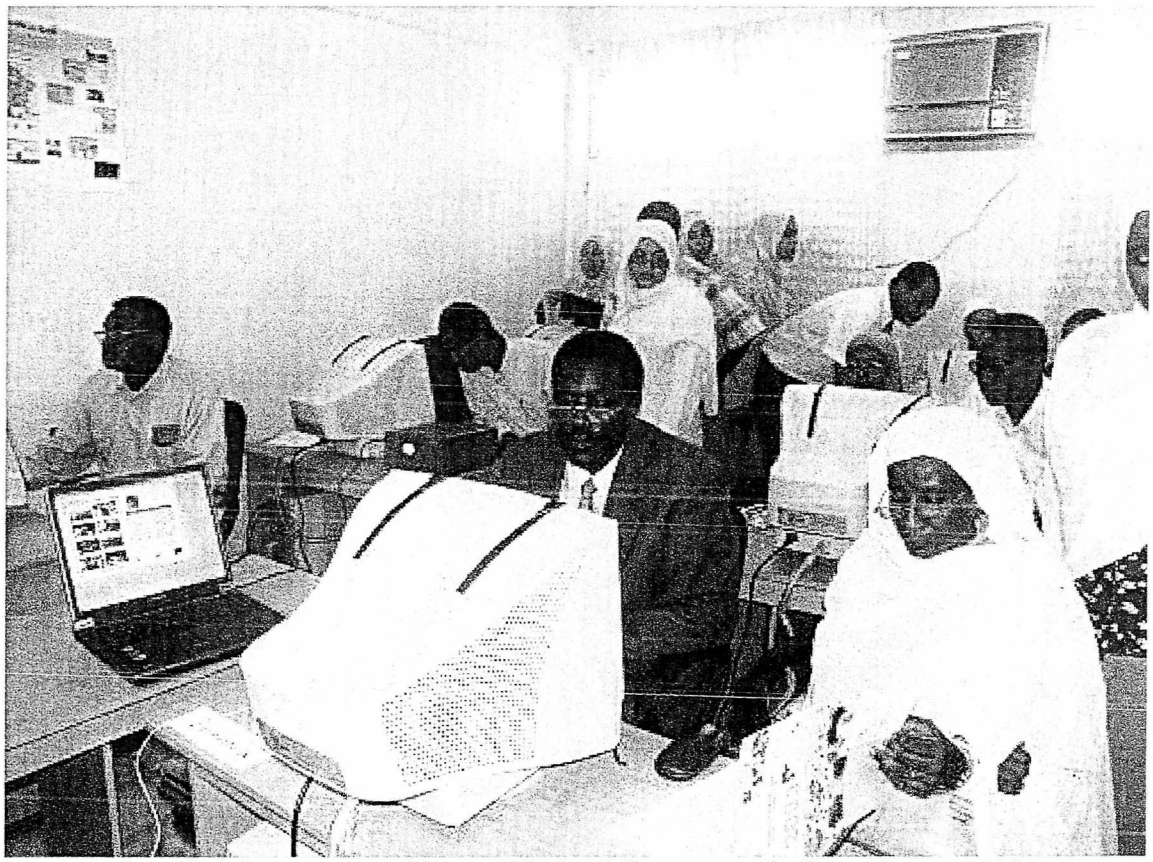
- Provision of office-, laboratory-, veterinary- and communication equipment (total value: approximately € 155,000) to AH&EDC Department and its subordinated units & PACE state offices, and to Central Veterinary Research Laboratory
- Facilitation of (5) skilled-oriented training courses on PID, disease reporting, and PDS
- Facilitation of the participation of (13) senior officials in altogether (6) regional PACE workshops and meetings

Project funds have been available throughout the reporting period and were managed and accounted in compliance with EDF- and implementing procedures of the PMU.

Expenditure statements work plan implementation status had been reported regularly to the members of the Technical Committee.

Strengthening of national capacities

Aiming at the broadening and strengthening of the national epidemio-surveillance network, the PACE Sudan project has introduced in collaboration with the PEU Nairobi the PACE Integrated Database (PID) to Sudan in August 2003 (see photograph below).



Photograph 2: Training course on PID at AH&EDC Department in Soba, August 2003

To-date (01/02/04), the staff has completed the entering of available basic information and animal health data into the PID programme at Soba head quarter. Hard- and software for PID application at state level in the first (8) federal states has been procured. (1) training course on new disease formats for relevant state veterinary personnel has been conducted in January 2004; training of state veterinary staff on PID and PDS will start in March/ April 2004.

The project facilitated (35) field missions & follow-up visits of HQ- and State level veterinary staff.

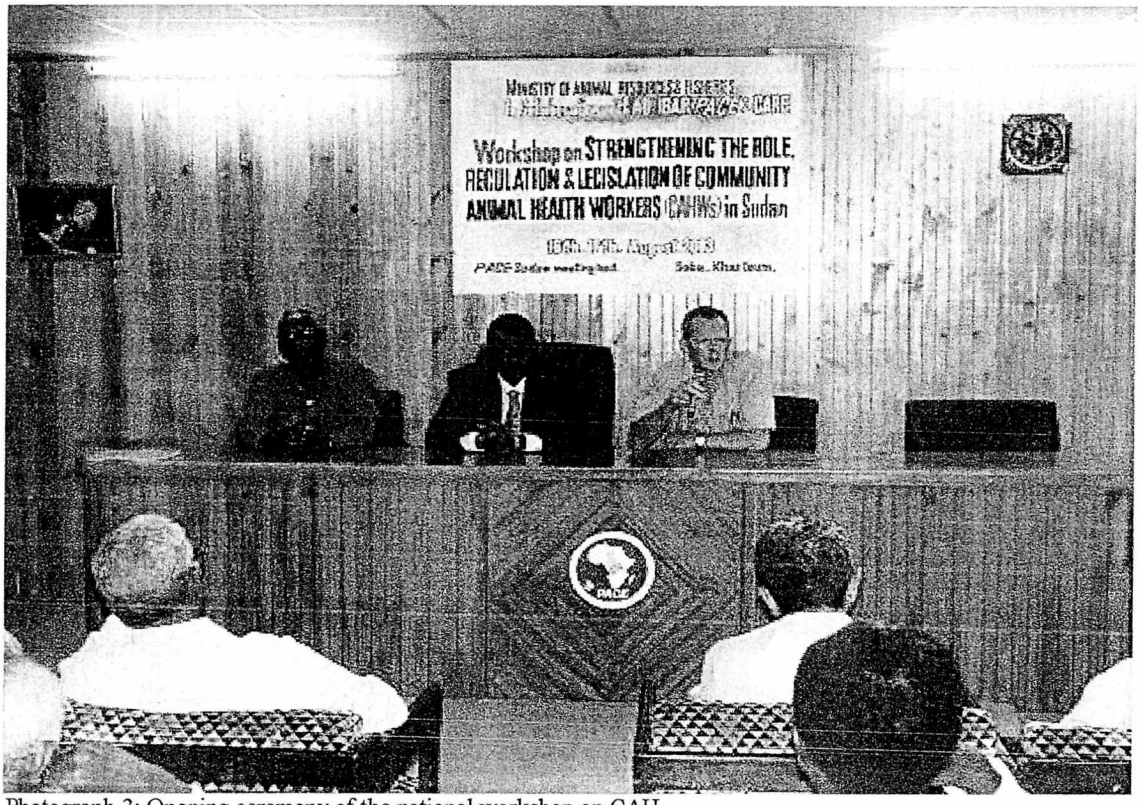
Furthermore, the PACE project disbursed funds to PACE state coordinators and regional laboratories for facilitation of field missions and disease diagnosing, respectively.

8.2.2 Result 2

Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and medicines, in areas served by OLS-NS.

The project conducted in collaboration with CAPE AU/IBAR a policy workshop on "Strengthening the Role, Regulation & Legislation of Community-based Animal Health Workers in Sudan" in Khartoum from 16th – 17th August 2003 (see photograph below). The workshop was

last one in a series of workshops on the subject of Community-based Animal Health (CAH), held during 2003 by the AH&EDC Department, together with Southern Desk of the FMAR&F, and funded by the CAPE Unit of AU/IBAR. The workshop aimed to examine the current CAH situation in Sudan and the implications of revising animal health policy and legislation.
(47) participants represented different levels and departments within the FMAR&F; the Department of Legislation in the Ministry of Justice, State veterinary departments, the Sudan Veterinary Council, the Sudan Veterinary Association and Women's Veterinary Associations, FAO and other local and international agencies & NGOs.



Photograph 3: Opening ceremony of the national workshop on CAH

The workshop recommendations resulted in an action plan to be implemented by the FMAR&F in collaboration with CAPE Unit AU/IBAR targeting at:

A. Revision of national legislation concerning veterinary services;
B. The establishment of a CAH Unit within the AH&EDC Department, which will be responsible for developing national guidelines on CAH, including harmonization of approaches and training curricula between different CAH projects throughout the country;
C. The establishment of a Working Group to take forward development of training for vets involved in CAH.

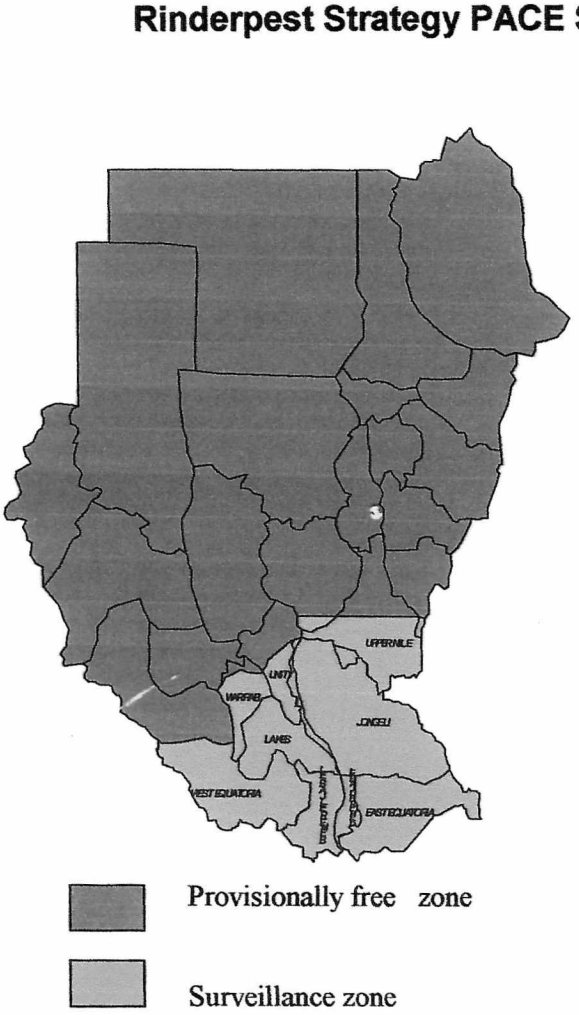
Finally, a proposal for assistance in funding the process of revising legislation and regulation of paravets (including CAHWs) in Sudan was forwarded to the Director General of AU/IBAR, Nairobi/ Kenya on 30/09/03.

8.2.3 Result 3

Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005

During the implementation of last WP/CE, the following main activities contributed to achieve Result 3:

- Sudan up-dated its declaration of provisional freedom of Rinderpest in August 2003. The self-declaration is based on an extension of the provisionally free zone (zone A) and the surveillance zone (zone B, See graph 1 below). The zone previously defined as the "infected zone" (zone C) became part of the surveillance zone. The self-declaration was accepted by OIE and published in the OIE disease information, Volume 16, No. 35, on 29 August 2003.
- Following the publication of the self-declaration, a presentation about Sudan's progress along the OIE pathway towards freedom of Rinderpest, and about the objective of the PACE programme was performed for representatives of ministries and NGOs at the FMAR&F on 11/09/03. The highlights of this event were broadcasted in the Sudanese television and daily newspapers.



Graph 1: Sudan's zonal approach for declaration of freedom from Rinderpest

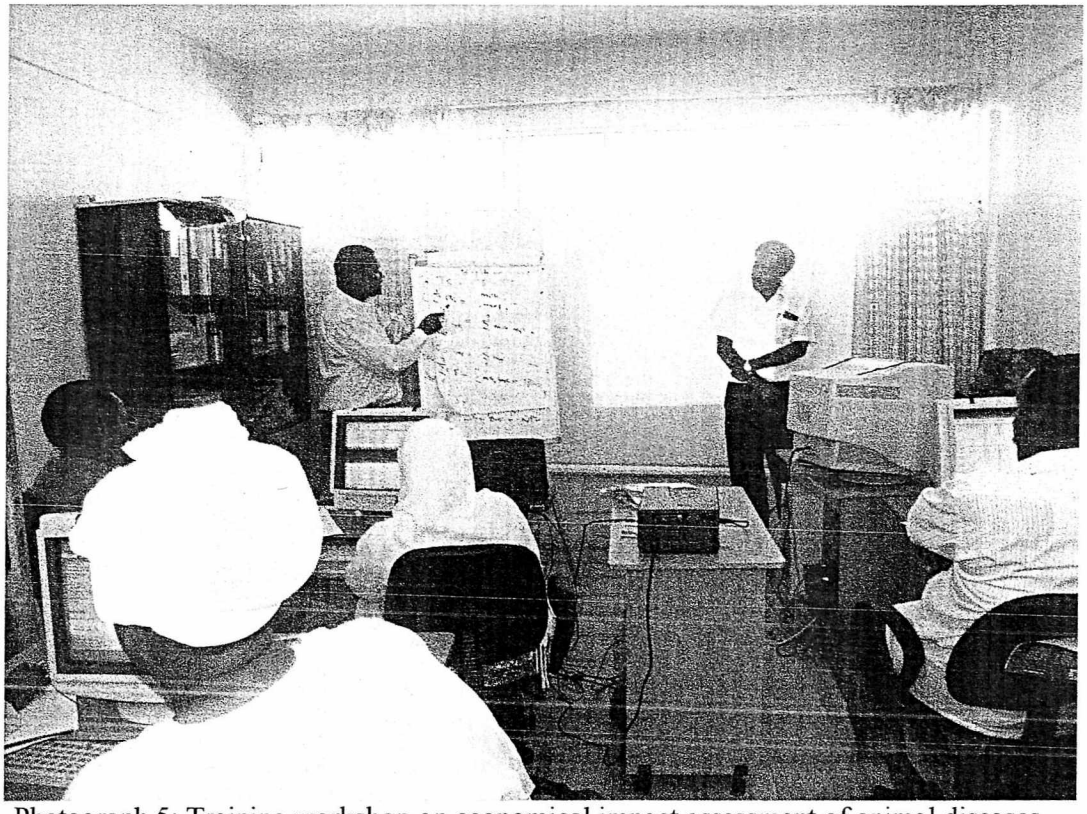
- The project facilitated (27) field missions (1-week duration) of PACE head quarter staff for coordination and assessment of rinderpest surveillance activities, and another (8) field missions for disease outbreak investigation (no RP, mainly FMD, HS and BQ) in central and southern states of Sudan.
- GPS devises and satellite telephones are available for field missions

- Representatives of PACE Sudan northern sub-project attended the Regional livestock coordination meetings in Malakal, Wau, Lokichoggio and Kadugli.
- In January 2004, both projects elaborated in collaboration with PEU PACE Nairobi the Rinderpest sero-surveillance plan for the whole country.
- A bonus payment system for accurate and timely monthly disease reporting has been introduced resulting in improved monthly disease reporting.
- PACE handed over ELISA test kits (total value: € 35,000) to the CVRL for testing of samples of rinderpest and stomatitis – enteritis suspected cases.
- Veterinary-, animal identification-, sampling-, communication- and other field equipment of a total value of € 132,000 (see table below) is under procurement.
- The 21 new PACE vehicle purchased by AU/IBAR arrived in Khartoum on 15/11/2003. Presently, the PACE management is preparing their distribution.
- PACE Sudan in collaboration with CAPE Unit Nairobi has conducted the first training of trainers course on PDS (See: Photograph below). The course consisted of three training parts: (part I in El Obeid on 15 – 22/09/03; part II – field exercise in October/ November 2003, and part III in El Gedaref on 08 – 11/12/03). The training laid the foundation for the country-wide application of participatory approaches to collect epidemiological information as part of an active, targeted disease surveillance programme. As a result of the field exercise, the (17) trainees conducted about 160 interviews with pastoral communities in active disease surveillance targeting for rinderpest, CBPP and other major epizootics. A compiled final report will be available in February 2004. Aiming at the establishment of PDS expert teams at state level, another training of field veterinarians on participatory disease search will be conducted in March 2004.



Photograph 4: PDS training in El Obeid: Participatory approach of disease ranking

- A national training workshop on economical impact assessment of animal diseases with special regard to Rinderpest was conducted in collaboration with Economical Unit of PACE AU/IBAR in Khartoum from August, 20 – 24, 2003. (15) participants from AH&EDC Department and Planning Department of FMAR&F were introduced to economical impact assessment and practised the computerized model calculation (See photograph below).



Photograph 5: Training workshop on economical impact assessment of animal diseases

8.2.4 Result 4

A strong basis for the development of appropriate strategies for the control of priority epizootic diseases is in place within the Department of Animal Health and Epizootic Diseases Control.

The project in collaboration with the Epidemiological Unit PACE AU/IBAR Nairobi conducted a national strategy workshop on CBPP in Khartoum/ Soba on July 09 – 10, 2003 (see photograph below). (38) veterinarians attended the two-day-workshop.
The proposed control strategy of CBPP is based on zonal approach (see map below) and resulted in an action plan consisting of the following main activities to be implemented during coming months:

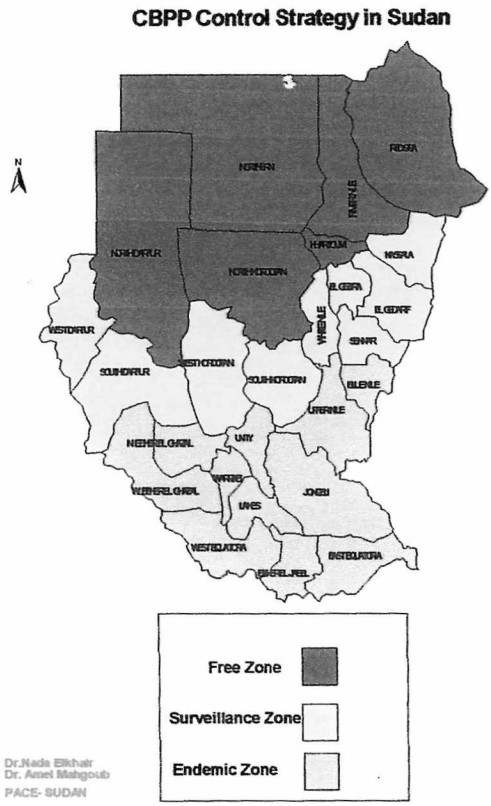
- Perform an impact assessment of CBPP in Sudan
- Improve epidemio-surveillance network
- Evaluate treatment and elective vaccination as a mean of control
- Search for funds for implementation of plan components
- Develop community awareness and encourage participatory appraisal approach
- Involve private sector in CBPP control
- Revise and enforce legislation related to CBPP

The programme in collaboration with CAPE Unit Nairobi has already started with field activities to assess the importance of CBPP in different areas of the country. Preliminary results from about 160 interviews with pastoral communities (collected during the PDS training) revealed that the disease is prevalent in some transitional parts of northern Sudan and in southern Sudan. The

compiled final report will be available in February 2004. A CBPP impact assessment survey is planed to be conducted in collaboration with CAPE Nairobi in April/ May 2004.



Photograph 6: CBPP workshop presentation of Dr. Gavin Thomson



Graph: CBPP zones in Sudan

9.0 PROPSAL OF WP&CE FOR THE PERIOD 01/05/2004 – 31/10/2004

Summary:

The WP/CE was elaborated in close cooperation with all directors and heads of the Department Animal Health & Epizootic Diseases Control (AH&EDC), and has been approved by the Steering Committee of the PACE Sudan northern sub-project. The work plan describes the projects activities planned for the period 01.05.2004 - 31.10.2004 and will require a budget of **€ 530,000**.

This WP/CE is based on the PACE Global Work Plan & Cost Estimate for Sudan prepared in collaboration with OAU/IBAR in June 2001, and on the recommendations of several PACE Sudan workshops conducted during 2003, e.g. Disease Surveillance Workshop (March 16 – 20, 2003), 7th OLS North/ South Coordination Meeting, (April 20 – 24, 2003), National Strategy Workshop on CBPP, (July 09 - 10, 2003), and Policy Workshop on Strengthening the Role, Regulation & Legislation of Community-based Animal Health Workers in Sudan, (August 16 – 17, 2003), and in addition on recommendations of Technical Committee meetings held regularly at the AH&EDC Department.

The WP/CE focuses on the continuation and completion of major on-going activities that had been started during 'Year 1' of the project implementation. They can be summarized as follows:

- Elaboration of the Sudan OIE dossier for freedom of rinderpest disease on a zonal basis (deadline: November 2004)
- Strengthening of disease surveillance & disease reporting network with special regard to PID and & Participatory Disease Search (PDS)
- Strengthening of emergency preparedness
- Improvement of laboratory capacity and capability for disease diagnosing
- Establishment of a Community-based Animal Health (CAH) Unit at the AD&EDC Department in Soba,
- Completion of CBPP impact assessment,
- Continuous training of relevant veterinary personnel & participation of senior officials in PACE workshops and meetings, and
- Ensuring effective coordination and harmonization of project activities between the northern – and southern PACE Sudan sub-project.

The implementation of this work plan will contribute to the achievement of the four project results defined in the Project Planning Matrix (See: Annex):

Result 1:
The necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.

Result 2:
Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and medicines, in areas served by OLS-NS.

Result 3:
Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005.

Result 4:
A strong basis for the development of appropriate strategies for the control of priority epizootic diseases is in place within the Department of Animal Health and Epizootic Diseases Control.

The main activities to be executed and the estimated costs are summarized as follows:

9.1 Main activities of Result 1

Result 1:
Necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.

9.1.1 Project Management Unit

The Project Management Unit (PMU) will support the overall programme implementation as described in the Global Work Plan and in the Implementing Procedures for the PMU (see annex). The unit will facilitate an effective and transparent project implementation through the conduction of regular meetings of the Technical Committee and Steering Committee. Temporary task force groups will be formed to elaborate strategy papers and concepts.
The PMU will provide accounting, procurement and logistical support in compliance with the procedures of the EDF.
In addition, this unit will contribute to

- Improvement of communication between project stakeholders, as well as between the northern – and southern PACE Sudan sub-project,
- Elaboration of the Sudan OIE dossier for application of freedom from rinderpest disease on a zonal basis,
- Strengthening of disease surveillance tools, particularly the application of PID & PDS,
- Improvement of the emergency preparedness plan and laboratory diagnostic capabilities,
- Facilitation of in-country field mission of HQ staff,
- Facilitation of skills-oriented training in-country and in the region,
- Participation of government staff at regional PACE meetings and workshops.

The PMU will provide (1) short term consultant for the facilitation of self-evaluation of the veterinary system in Sudan & the existing disease surveillance approach.
The Unit will support continuous training of relevant field & state-based veterinary staff involved in disease surveillance, disease reporting and investigation of rinderpest/ stomatitis/ enteritis outbreak rumors. The following local training courses will be offered until 31/10/2004:

Table 1: Local training facilitated by the PACE project

Course	Duration	No. of courses planned	No. of trainees per course	Total No. of trainees	When	Location
Basics on WinWord & Excel*	1 week	1	10	10	May 2004	AH&EDC Dep. Soba
Training of relevant state veterinary staff on PACE Integrated Database (PID) *	1 week	2	8	16	May 2004	AH&EDC Dep. Soba
Geographic Information System (GIS)	1 week	1	10	10	May 2004	AH&EDC Dep. Soba
Participatory Disease Searching (PDS) *	1 week	1	12	12	June 2004	Nyala
ELISA method	2 weeks	1	8	8	July 2004	CVRL Soba
Staff of mobile veterinary units in Participatory Epidemiology *	1weeks	2	14	28	June 2004	Kosti & Al Fula
Enhancement of diseases diagnostic capabilities *	1 week	2	12	24	August 2004	El Obeid & El Sennar
Total		**10**		**108**		

* training for field- & state-based veterinary staff

9.1.2 Epidemiological Unit/ Disease Monitoring & Evaluation Unit

The project will support the establishment and further up-grading of the Disease Monitoring & Evaluation Unit (DMEU) at the Department of AH&EDC. This will go along with training of relevant staff and with the improvement of communication & disease reporting between states epidemiological units, central unit in Soba, and PACE/ AU/IBAR & OIE. The PACE Integrated Database (PID) system that is presently applied at the AH&EDC Department will be stepwise linked-up with the epidemiological units at states level.
The DMEU will facilitate skills-oriented training on Windows & Excel, PID, GIS, PDS, and Participatory Epidemiology, (see table 1) for relevant veterinary personnel of central and states level.

9.1.3 Communication Unit

The project will support the Communication Unit in development and dissemination of appropriate training and communication materials (leaflets, news letters, posters, etc.) about Sudan's current strategy of rinderpest eradication and disease surveillance. The activities will be linked-up with the Extension Department at FMAR&F and states level.

9.1.4 Field Operation Unit

The project will give logistic support to the Field Operation Unit. This comprises the provision of a limited amount of veterinary, sampling and field equipment for emergency preparedness, and the facilitation of field missions.

9.2 Main activities of Result 2

Result 2:
Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and medicines, in areas served by OLS-NS.

The project will support the establishment and operation of a Community-based Animal Health Unit at the Department of AH&EDC in Soba, that facilitates

- the coordination of community-based activities in transitional areas,
- links-up the work of CAHWs with the state veterinary services, including their training in relevant topics, and
- the revision of current legislation & regulation of paravets (including CAHWs) in Sudan.

The project will facilitate the conduction of these activities and enhance proper linkage of CAHWs to veterinary authorities in compliance with OIE recommendations through implementation of (4) workshops in relevant states (Kordufan, Upper Nile, Equatoria, Baher El Gazal/ Dafour), and will optimize the use of available funds through coordinating the activities and contributions with FAO OLS- NS and CAPE Nairobi.

9.3 Main activities of Result 3

Result 3:
Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005

9.3.1 Activities to comply with OIE pathway

The project management will ensure that all actions on rinderpest eradication in Sudan comply with the OIE pathway and will support the implementation of a harmonized action plan for rinderpest eradication.

The main activities are:

- Preparation of the Sudan OIE country dossier for application of **freedom from rinderpest disease on a zonal basis** provided that no confirmed outbreak of rinderpest is recorded in the intervening period (deadline of dossier preparation: November 2004).
- Elaboration and execution of sero-surveillance activities for verification of the absence of rinderpest virus in Sudan, including the preparation of appropriate laboratory capacity.
- Facilitation of cross border harmonization meetings with neighboring countries, in particular with Chad and Central African Republic.
- Provision of logistics needed for the rapid investigation of rinderpest outbreak rumors;
- Maintaining of an emergency preparedness programme, including provision of emergency equipment & facilities.
- Conduction of wildlife surveillance activities in western Sudan (Radum) in collaboration with PACE Wildlife Unit Nairobi.

9.3.2 Improvement of rinderpest surveillance and reporting

The project will allocate funds for the promotion of activities towards improved disease surveillance and disease reporting for rinderpest and major epizootic diseases that complies with OIE formats. This comprises:

- Establishment of expert PDS teams in the whole Sudan and the facilitation of their field activities.
- Identification of geographical gaps in services and/ or reporting, and the elaboration of ways and means for filling these gaps.
- Introduction of a bonus payment system for investigation and follow-up of rinderpest/ stomatitis-enteritis rumors.
- Regular reporting and information sharing between PACE Sudan northern sub-project, the southern sub-project, FAO-OLS of northern and southern sector, and with PACE Coordination Unit Nairobi.
- Improvement of communication between headquarters and state veterinary staff for effective disease reporting and follow-up of outbreak rumours.

Furthermore, the project will facilitate

- logistic support for disease surveillance, including provision of essential equipment for sampling of specimen.
- in collaboration with the AH&EDC Department, the project will facilitate the smooth implementation of 21 new PACE vehicles to ensure that they will only be used for the designated and approved disease surveillance activities.
- the establishment of regional task forces (D.G. Animal Resources, Director of Veterinary Services of localities, Director of Ministry of Agriculture, NGO, Pastoralist Union, Tribal Chiefs, etc.) to improve awareness and coordination of disease surveillance between state veterinary service, communities and NGOs working in the same area.
- (2) training courses on participatory epidemiology for veterinarians of mobile units, (2) courses on enhancement of diseases diagnosis capabilities, and (2) course on PID (see Result 1, table 1).

9.3.3 Improvement of veterinary diagnostic facilities

- PACE Northern Sudan in collaboration with ARRC will support disease diagnosing in regional laboratories through the provision of consumables, equipment and training of laboratory staff.
- With regard to investigation of rinderpest/ stomatitis-enteritis rumors, the project will facilitate the diagnosing of rinderpest and rinderpest-like diseases at Central Veterinary Research Laboratory (CVRL) at Soba. A Memorandum of Understanding between PACE

Sudan and CVRL in Soba, as well as, with relevant regional laboratories, will ensure testing of all submitted samples in accordance with the standards of the rinderpest Laboratory Network.

Furthermore, the project will facilitate

- the co-operation between specialized laboratories for effective utilization of diagnostic facilities, e.g. Polymerase Chain Reaction (PCR) and Virus Isolation, when the need arises,
- the forwarding and exchange of samples with other laboratories in the region's diagnostic network, and as the need arises to send samples to world reference laboratories for confirmatory diagnosis and virus characterization,
- provision of rapid and field-adapted diagnostic tests to support the field services.

9.3.4 Activities for emergency preparedness & rapid outbreak investigations

The project will provide logistics needed for emergency preparedness and rapid investigation of rinderpest/ stomatitis-enteritis rumors. This includes:

- Provision of veterinary tools for emergency preparedness (syringes, medicines, clinical- and post-mortem examination kits, sampling equipment, etc.) and field-adapted diagnostic tests,
- Facilitation of field investigation missions of state HQ and regional laboratory staff to the side of the outbreak rumor,
- Coordination with relevant national regional and international emergency preparedness network.

9.4 Main activities of Result 4

Result 4:
A strong basis for the development of appropriate strategies for the control of priority epizootic diseases is in place within the Department of Animal Health and Epizootic Diseases Control.

9.4.1 Surveillance and control of CBPP and other epizootic diseases:

The project will facilitate the collecting and compiling of epidemiological data on priority epizootic diseases, in particular CBPP & FMD, for the assessment of their importance and economical impact in Sudan. The findings will be supportive for the development of control strategies and policy formulation, including legislation in relation to disease control.
The project will also procure, if needed, diagnostic kits, sampling and laboratory equipment for diagnosing of priority diseases.

9.5 Timetable of Activities

The following table 2 summarizes the main activities to be implemented until 31st October 2004:

Table 2: Timetable for activities from 1st May till 31st October 2004

	ACTIVITY	PERIOD OF IMPLEMENTATION					
		M	J	J	A	S	O
Result 1	1. 1 Ensure effective project management, procurement and accounting according to EDF rules						
	1.2 Conduct regular meetings of Technical Committee & Steering Committee & task force groups						
	1.3 Improve communication between PACE stakeholders, and PACE Sudan northern – & southern sub-project						
	1.4 Support the Disease Monitoring & Evaluation Unit (DMEU) at the Department of AH&EDC						
	1.5 Introduce step-wise PID data management system into states and link them up with HQ						
	1.6 Conduct training of veterinary personnel on relevant subjects						
	1.7 Facilitate the preparation of Sudan OIE dossier & other papers						
	1.8. Organise study tours related to OIE pathway and support participation of senior government staff at regional PACE meetings, workshops and OIE conferences						
	1.9 Facilitate in-country field missions of HQ staff						
	1.10 contribute to improvement of disease surveillance tools & laboratory diagnostic facilities						
	1.11 Support the Communication Unit						
	1.12 Support Field Operation Unit & strengthen emergency preparedness						
Result 2	2.1 Support the establishment of the CAH Unit at AH&EDC Department in Soba						
	2.2 Enhance proper linkage of CAHWs to veterinary authorities through implementation of (4) workshops in relevant states						
	2.3 Facilitate training of CAHWs and provide them with veterinary tools						
Result 3	3.1 Support implementation of harmonized action plan on rinderpest eradication & ensure compliance with OIE pathway						
	3.2 Promote the elaboration of the Sudan OIE dossier for verification of freedom of rinderpest disease						
	3.3 Develop & support the implementation of the sero-surveillance action plan for Sudan OIE dossier						
	3.4 Facilitate cross border harmonization meeting with Ethiopia & Chad						
	3.5. Support rapid disease investigation of RP outbreak rumours						
	3.6 Establish expert PDS teams & facilitate their field work						
	3.7 Identify geographical gaps in services and/ or reporting, & elaborate ways and means for filling these gaps						
	3.8 Introduce of a bonus payment system for investigation and follow-up of rumours						
	3.7 Facilitate regular information sharing between PACE Sudan northern & southern sub-project, FAO-OLS, PACE Nairobi & OIE						
	3.8 Improve communication between headquarters, veterinary laboratories and field staff						
	3.9 Give logistic support to disease surveillance & follow-up the utilization of the 21 new PACE vehicles						
	3.10 Facilitate regional task force meetings						
	3.11 Conduct (2) training courses for vets of mobile units on participatory epidemiology & (2) courses on enhancement of diseases diagnosis capabilities						
	3.12 Facilitate wildlife surveillance activities						

	ACTIVITY	PERIOD OF IMPLEMENTATION					
		M	J	J	A	S	O
Result 3	3.13 Support disease diagnosing in regional laboratories through provision of consumables, equipment & training						
	3.14 Facilitate the improvement of diagnostic capabilities for investigation of rinderpest and rinderpest-like diseases at CVRL Soba						
	3.15 Establish ELISA testing facilities in selected laboratories of strategic importance						
	3.15 Train relevant staff on ELISA						
	3.16 Develop co-operation between specialized laboratories for effective utilization of diagnostic facilities						
	3.17 Facilitate forwarding of samples to regional (& world) reference laboratories when required						
	3.18 Facilitate field missions of state HQ and regional lab. staff						
	3.19 Provide logistics needed for the rapid investigation of rinderpest/ stomatitis-enteritis rumors						
Result 4	4.1 Collect and compile epidemiological data on priority diseases (CBPP & FMD) and assess their impact						
	4.2 Facilitate the development of control strategy for CBPP & FMD						
	4.3 Provide diagnostic kits & limited equipment needed for sample testing						

9.6 Cost Estimate for the Period 1st May till 31st October 2004

The following table displays the budget overview and cost estimates of the project's work plan.

Cost item		EDF funds for the period 1. April 2003 - 31. October 2004 (€)				
		Total EDF budget available (€)	Total spent until 30/04/2004 (€)	Funds remaining after 30/04/2004 (€)	Funds to be spent from 01/05/04 till 31/10/ 2004 (€)	Funds remaining after 31/10/ 2004 (€)
Enhanced national capacities						
Personnel		**0**	0	**0**	0	**0**
Project Management Unit	personnel	**7,600**	2,900	**4,700**	2,400	**2,300**
	equipment	**87,850**	58,000	**29,850**	29,850	**0**
	running cost	**254,550**	132,700	**121,850**	121,850	**0**
Equipment		**0**	0	**0**	0	**0**
Running costs		**0**	0	**0**	0	**0**
Total 1		**350,000**	**193,600**	**156,400**	**154,100**	**2,300**
Improved veterinary services						
Personnel		**0**	0	**0**	0	**0**
Equipment		**10,000**	0	**10,000**	10,000	**0**
Running costs		**30,000**	500	**29,500**	29,500	**0**
Total 2		**40,000**	**500**	**39,500**	**39,500**	**0**
Fight against rinderpest						
Personnel		**0**	0	**0**	0	**0**
Equipment		**450,000**	305,000	**145,000**	145,000	**0**
Running costs		**200,000**	92,000	**108,000**	108,000	**0**
Total 3		**650,000**	**397,000**	**253,000**	**253,000**	**0**
Control of other epizootics						
Personnel		**0**	0	**0**	0	**0**
Equipment		**40,000**	10,000	**30,000**	30,000	**0**
Running costs		**20,000**	7,500	**12,500**	12,500	**0**
Total 4		**60,000**	**17,500**	**42,500**	**42,500**	**0**
Totals 1 - 4		**1,100,000**	**608,600**	**491,400**	**489,100**	**2,300**
Contingencies		**100,000**	**0**	**100,000**	**40,900**	**59,100**
Grand Total		**1,200,000**	**608,600**	**591,400**	**530,000**	**61,400**

The cost estimate for project implementation from 1st May 200 till 31st October 2004 amounts to € **530,000**. Details of the cost estimate are displayed in the following tables:

Detailed cost estimate for the period 01/05/ - 31/10/2004

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	disbursement schedule 2004	
						May - July	Aug - Oct
1	**Enhanced national capacities**						
1.1	**Personnel**				**0**		
	Subtotal Personnel (1.1)				**0**		
A	**Project Management Unit**						
A.1	**Personnel**						
A.1.01	Secretary (1)	man month	6	250	1,500	x	x
A.1.02	Driver (1)	man month	6	150	900	x	x
	Subtotal Personnel (PMU)				**2,400**		
	TOTAL - Personal (A.1)				**2,400**		
A.2	**Equipment**						
A.2.1.	**Equipment – PMU**						
A.2.1.01	Office furniture	unit			0		
A.2.1.02	computer hard - & software	lump sum		500	500	x	
A.2.1.03	communication equipment	unit			0		
A.2.1.04	other office equipment						
	pin board	unit	1	100	100	x	
	map of Sudan	unit	1	100	100	x	
	Subtotal Equipment - PMU				**700**		
A.2.2	**Equipment- DMEU**						
A.2.2.01	Office furniture						
	filing cabinet	unit	6	200	1,200	x	
	office desk + chair	unit	2	250	500	x	
	arm chairs (4) & coffee table	unit	2	300	600	x	
	meeting table + 8 chairs	unit	1	800	800	x	
	Cupboard	unit	2	200	400	x	
	Accessories	lump sum		300	300	x	
A.2.2.02	computers and accessories	unit			0		
	Software	lump sum			3,000	x	
	lab top	unit	2	2,000	4,000	x	
	Digitizer	unit	1	4,500	4,500	x	
A.2.2.03	communication equipment (fax)	unit	1	400	400	x	
A.2.2.04	other office equipment	lump sum			300	x	
	Photocopier	unit	2	1,600	3,200	x	
	Subtotal Equipment - DMEU				**19,200**		
A.2.3	**Equipment – Comm. Unit**						
A.2.3.01	Office furniture	unit			0		
	filing cabinet	unit	2	200	400	x	
	cupboard	unit	1	200	200	x	
	other office equipment	lump sum		300	300	x	
A.2.3.02	audio-visual equipment						
	digital photo camera	unit	1	800	800	x	
	video tapes & consumables	lump sum		500	500	x	
	Subtotal Equipment Comm. Unit				**2,200**		
A.2.4	**Equipment - Field Operat. Unit**						
A.2.4.01	Office furniture	unit			0		
	filing cabinet	unit	4	200	800	x	
	office desk & chair	unit	2	250	500	x	
	accessories	lump sum		500	500	x	
A.2.4.02	computers and accessories	unit	0	0	0		
A.2.4.03	communication equipment	unit		0	0	x	
A.2.4.04	other office equipment	lump sum		250	250	x	
	Subtotal Equipment F.O. Unit				**2,050**		

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	disbursement schedule 2004	
						May - July	Aug - Oct
A.2.5	**CAH Unit**						
A.2.5.01	Office furniture	unit			0		
	filing cabinet	unit	3	200	600	x	
	office desk & chair	unit	2	250	500	x	
	accessories	lump sum		300	300	x	
	arm chairs (4) & coffee table	unit	1	300	300	x	
A.2.5.02	computers and accessories	unit	1	2,000	2,000	x	
A.2.5.03	communication equipment	unit				x	
	fax machine	unit	1	400	400	x	
A.2.4.04	other office equipment						
	photocopier	unit	1	1,600	1,600	x	
	Subtotal Equipment CAH Unit				**5,700**		
	TOTAL - EQUIPMENT (A.2)				**29,850**		
A.3.	**Running costs**						
A.3.1	**Running costs - PMU**						
A.3.1.01	Office supplies	lump sum/ month	6	400	2,400	x	x
A.3.1.02	Communications: Tel., fax,...	lump sum/ month	6	300	1,800	x	x
A.3.1.03	other office running costs	lump sum			1,300	x	x
A.3.2.	**Other project running costs**						
A.3.2.1	Steering Committee	lump sum			5,500	x	x
A.3.2.2	Technical Committee	lump sum			6,000	x	x
A.3.2.03	development of strategy papers	lump sum			2,500	x	x
A.3.2.04	International & regional travel (5 events, 1 week, 15 persons)	lump sum			23,000	x	x
A.3.2.05	in-country field missions	lump sum			10,000	x	x
A.3.2.06	Training in the region						
	Study tour related to OIE pathway	study tour	1	2,500	2,500		x
	Training in disease surveillance/ economical assessment (2 weeks)	course	2	3,500	7,000		x
	training in PCM (1 week)	course	2	2,500	5,000	x	
A.3.2.07	Training in the country						
	WinWord/ Excel (10 trainees)	1 week course	1	3,500	3,500	x	
	PID (8 trainees/ course)	1 week course	2	3,500	7,000	x	
	GIS (10 trainees)	1 week course	1	3,500	3,500	x	
	PDS expert teams training	2 week course	1	5,000	5,000	x	
	ELISA (8 trainees)	1 week course	1	3,500	3,500		x
	PE for field vets of mobile units (12 trainees)	1 week course	2	4,000	8,000		x
	Enhancement of diagnostic capabilities of field vets	1 week course	2	3,500	7,000		x
A.3.2.08	preparation of Sudan OIE dossier	lump sum			2,000	x	x
	Subtotal Running Cost (A.3.1 + A.3.2)				**106,500**		
A.3.3	**Running costs - DMEU**						
A.3.3.01	Office supplies	lump sum/ month	6	200	1,200	x	x
A.3.3.02	Communications: Tel., fax,...	lump sum/ month	6	150	900	x	x
A.3.3.03	emergency maintenance	lump sum			1,000	x	x
A.3.3.04	literature on OIE pathway & major epizootics (journals, manual, ...)	lump sum			1,000		x
	Subtotal - DMEU				**4,100**		

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	disbursement schedule 2004	
						May - July	Aug - Oct
A.3.4	**Running costs - Comm. Unit**						
A.3.4.01	Office supplies	lump sum	6	100	600	x	x
A.3.4.02	Communications: Tel., fax,...	lump sum	6	50	300	x	x
A.3.4.03	emergency maintenance	lump sum			300	x	x
A.3.4.04	production of communication materials	lump sum			7,500	x	
	Subtotal - Comm. Unit				**8,700**		
A.3.5	**Running costs - F.O. Unit**						
A.3.5.01	Office supplies	lump sum	6	100	600	x	x
A.3.5.02	Communications: Tel., fax,...	lump sum	6	50	300	x	x
A.3.5.03	emergency maintenance	lump sum			450	x	x
	Subtotal - F.O. Unit				**1,350**		
A.3.6	**Running costs - CAH Unit**						
A.3.6.01	Office supplies	lump sum	6	100	600	x	x
A.3.6.02	Communications: Tel., fax,...	lump sum	6	50	300	x	x
A.3.6.03	emergency maintenance	lump sum			300	x	x
	Subtotal - CAH Unit				**1,200**		
	TOTAL Running Cost (A.3.1 - A.3.6)				**121,850**		
	TOTAL 1				**154,100**		

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	disbursement schedule 2004	
						May - July	Aug - Oct
2	**Improved veterinary services**						
2.1	**Personnel**				**0**		
	Subtotal (2.1)				**0**		
2.2	**Equipment**				**0**		
	CAHWs veterinary tool boxes	unit	50	200	10,000	**x**	
	Subtotal (2.2)				**10,000**		
2.3	**Running costs**						
2.3.1	facilitation of CAH activities						
2.3.1.01	revision of current legislation & regulations	lump sum			3,000	x	
2.3.1.03	training inputs	lump sum			7,500	x	
2.3.1.04	coordination of CAHWs activities						
	regional workshop on CAHWs supervision & linkage to veterinary authorities	workshop	4	4,750	19,000		
	Subtotal (2.3)				**29,500**		
	Total 2				**39,500**		

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	disbursement schedule 2004	
						May - July	Aug - Oct
3	**Fight against rinderpest**						
3.1	**Personnel**				**0**		
	Subtotal (3.1)				**0**		
3.2	**Equipment**						
3.2.1	veterinary equipment						
	emergency equipment for (9) regions						
	automatic syringes	unit	500	10	5,000	x	
	veterinary tool box	unit	20	250	5,000	x	
	cool boxes	unit	50	100	5,000	x	
	post mortem examination kits	unit	20	300	6,000	x	
	medicine	lump sum			10,000	x	
	GPS devises	unit	26	250	6,500	x	
	wildlife equipment						
	darting gun	unit	1	1,500	1,500	x	
	anesthesia equipment for dart gun	lump sum			2,500	x	
	binoculars/ field glasses		2	250	500	x	
3.2.2	sampling equipment						
	animal identification utensils	lump sum			5,000	x	
	consumables (needles, tubes, ..)	lump sum			10,000	x	
3.2.3	camping filed equipment	set	0		0	x	
3.2.4	laboratory equipment						
	ELISA equipment	set	1	10,000	10,000		x
	ELISA test kits	unit	3	5,000	15,000		x
	other laboratory equipment	lump sum			10,000	x	x
3.2.5	other equipment						
3.2.5.1	communication equipment				0		
	fax machine	unit	6	400	2,400	x	
	computers & accessories for PID	unit	12	2,000	24,000	x	
	consumables for computers (spare cartridge)	lump sum			1,300	x	
	photocopier for PACE state offices	unit	15	1,600	24,000	x	
	consumables for photocopier (toner, etc.)	lump sum			1,300	x	
	Subtotal (3.2)				**145,0 lump sum 00**		
3.3	**Running costs**						
3.3.1.	cross border harmonization meeting	meeting	2	5,000	10,000	x	
3.3.2	field missions of state vet. staff, laboratory staff and others	lump sum/ state	23	500	11,500	x	x
3.3.3	early outbreak emergency reaction	lump sum			5,000	x	x
3.3.3.01	consumables + reagents for laboratories						
	consumables + reagents for (14) satellite laboratories	lump sum/ lab	14	500	7,000		x
	consumables + reagents for CVRL	lump sum			12,200	x	x

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	Disbursement schedule 2004	
						May - July	Aug - Oct
3.3.3.02	consumables & office supplies for (23) PACE offices at state level	lump sum/ state	23	400	9,200		x
3.3.303	forwarding of samples to regional reference lab	lump sum			3,000	x	x
3.3.3.04	scheme for RP outbreak investigation & follow-up	lump sum			3,000	x	x
3.3.3.05	coordination of disease surveillance activities					x	x
	task force coordination meeting at regional level	lump sum/ meeting	10	250	2,500	x	x
	coordination meetings with PACE state coordinators	lump sum/ state	3	2,000	6,000	x	x
	scheme for timely and accurate disease reporting	lump sum/ state	12	300	3,600	x	x
	sero-surveillance activities in (12) states	lump sum/ state	12	500	6,000	x	x
	PID implementation & follow-up at state level	lump sum/ state	8	250	2,000	x	x
	PDS implementation in (15) states	lump sum/ state	15	500	7,500	x	x
	operational costs of (15) new PACE vehicles centrally managed for disease surveillance activities	lump sum/ vehicle	15	800	12,000	x	x
3.3.3.06	wildlife survey	lump sum			7,500		x
	Subtotal (3.3)				**108,000**		
	Total 3				**253,000**		

Code	Component & item	Unit	Number of units	Unit cost (€)	Total cost (€)	disbursement schedule 2004	
						May - July	Aug - Oct
4	**Control of other epizootics**						
4.1	**Personnel**				**0**		
	Subtotal (4.1)				**0**		
4.2	**Equipment**						
4.2.1	laboratory equipment						
	ELISA diagnostic kits	test kit	2	5,000	10,000	x	
	lab. equipment & consumables	lump sum			5,000	x	
4.2.2	field equipment						
	animal restraining equipment (crushes)	unit	7	1,500	10,500		
4.2.3	medicines	lump sum			4,500	x	
	Subtotal (4.2)				**30,000**		
4.3	**Running costs**						
4.3.1.	CBPP impact survey	lump sum			8,000	x	
4.3.2	development of CBPP &FMD control strategy	lump sum			2,000	x	x
4.3.3	follow-up of field activities	lump sum			2,500	x	x
	Subtotal (4.3)				**12,500**		
	Total 4				**42,500**		
	Totals 1 - 4				**489,100**		
	Contingency				**40,900**		
	Grand Total				**530,000**		

PROPOSED BY THE NATIONAL PACE CO-ORDINATOR

Signature: ..... Date: .....

APPROVED BY THE NATIONAL AUTHORISING OFFICER

Signature: ..... Date: .....

ENDORSED BY THE DELEGATION OF THE EUROPEAN COMMISSION TO SUDAN

Signature: ..... Date: .....

ANNEX:

Annex 1: Project Planning Matrix

Annex 2: Budget Overview for Distribution of EDF Funds

Annex 3: Service Contract between AU/IBAR and GTZ

Annex 4: Implementing Procedures of the PMU

Annex 5: Terms of Reference

5.1: Provision of Technical Assistance for the National PACE Programmes

5.2: Technical Assistance for the Project Management Unit in Sudan

ANNEX 1

PROJECT PLANNING MATRIX

PROJECT PLANNING MATRIX:
FIGHT AGAINST LINAGE 1 RINDERPEST VIRUS IN SUDAN
MAJOR OBJECTIVES AND PROJECT FRAMEWORK FOR NORTHERN SUDAN

Goal	Poverty among those involved in livestock farming is reduced, thereby improving their livelihoods and enhancing food security
Purpose	Appropriate systems for animal disease surveillance and control are developed and applied to ensure the eradication of rinderpest, thereby supporting Sudan's livestock industry and sector.
Result 1	The necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.
Result 2	Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and medicines, in areas served by OLS-NS
Result 3	Sudan is on schedule to be internationally recognized as free of rinderpest disease in 2005
Result 4	A strong basis for the development of appropriate strategies for the control of priority diseases is in place within the Department of Animal Health and Epizootic Disease Control

Objectively verifiable indicators (OVI) of PACE Sudan

Intervention logic	Objectively Verifiable Indicators	Means of verification	Assumptions
Goal/ Overall objective Poverty among those involved in livestock farming is reduced and productivity is increased, thereby improving their livelihoods and enhancing food security	The incomes of livestock owners and exporters of animals and animal products obtained from the livestock sub-sector and livestock production are raised significantly (by x% a.b.d.) over the four years	Central bureau of statistics annual reports	
Purpose/ Specific objective Appropriate systems for animal disease surveillance and control are established, which support the development of Sudan's livestock industry and sector	Sudan submits regular up to date country reports to OAU/IBAR in the required formats from 2003 onwards. Emergency preparedness plans are duly approved and activated rapidly and effectively in the face of any confirmed outbreak of rinderpest that may occur between 2002 and 2004. Government funds the full operating cost of national animal disease surveillance by the budget year 2004/2005. Community-based veterinary services are delivered on a full cost recovery basis, the system is operational throughout PACE and revenue collection increases by 10% each year, between 2002 and 2004, both years inclusive.	Reports of the Animal Resources Department on file at OIE and OAU/IBAR Annual reports of the ARD and PACE Programme epidemiological unit Approved government budget and annual reports of the Ministry of Animal Resources Audited accounts of the cost recovery system	The growth in the supply of animal products continues (Central statistical bureau) Climatic conditions remain favorable to livestock and crop production (Meteorological department reports) National and regional political stability exists throughout the period of the PACE Programme (OAU and UN reports)

Intervention Logic	Objectively verifiable indicators	Means of verification	Assumptions
Result 1 The necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengthened, on a sustainable basis.	A support and management unit is fully established and operational within six months of the RAO's signature of the contract, and it remains fully effective throughout the project. At least 80% of the Department of AH&EDC and veterinary laboratories who are identified as requiring training for their duties under PACE attend appropriate training courses by the end of the project. From 2002, the project has funded at least 80% of the NGO-managed tasks and activities that were approved by the joint Advisory Panel (comprising MAR, PACE OAU/IBAR, OLS/FAO). All veterinary centres submit regular reports in the required formats to the MAR by the end of 2003. By the end of 2003, the National System for Epidemiological Surveillance complies with performance indicators that will be devised and applied during the PACE programme. By the end of 2003, the reporting and feedback system for animal health is in place and fully compliant with performance indicators that will be refined and transferred to the staff at all levels during the project.	Reports of the Project Support Unit Reports of the Support Unit manager Minutes of meting of Advisory Panel Reports at MAR Reports of NSES monitoring Annual reports and monitoring reports	Government remains committed to providing sufficient financial resources to meet the full recurrent costs of epidemio-surveillance by 2003/2004. [Government budget figures] Funds for approved budgets are released promptly. [PACE Sudan reports] Skilled staff are retained in the appropriate posts for which thy are trained and experienced. [Staff lists on file at AH&EDC Department]

Intervention Logic	Objectively verifiable indicators	Means of verification	Assumptions
Result 2 Community-based systems for effectively co-ordinated delivery of preventive and curative veterinary services and medicines are functional	The number of CBAHWS working under organized veterinary supervision has increased from 125 in 2000, to at least 100 each year during the project.	SVC register and annual reports [Draft] legislation endorsed by the Government Results of ARD survey Print out of datatbase	The general development of the livestock sector supports the sustainable delivery of animal health services [Ministry of Agriculture Statistics] Farmers are prepared to pay increasingly for services and medicines/ vaccines. [Cost recovery revenue] Government policy remains supportive of increased role the private sector in the delivery of veterinary servic [Policy documents]
Result 3 Sudan is internationally recognized to be free of rinderpest disease in 2004	OIE confirmation that Sudan has complied with the requirements of the OIE pathway for the declaration of freedom from rinderpest infection/ disease by mid 2004	Reports of the OIE FMD and other Epizootics Commission	Security conditions throughc the country permit effective disease surveillance and tim responses to reports of rinderpest outbreaks [PACE Sudan reports] All PACE member countries continue to support OAU/IBAR harmonization c cross-boarder disease surveillance and control measures in and central Afri [OAU/IBAR reports]
Result 4 A strong basis for the development of appropriate strategies for the control of priority diseases is in place within the Department of Animal Health and Epizootic Disease Control	The NSES produces and provides reports to OAU/IBAR and OIE on the national incidence of priority epizootic diseases (CBPP, FMD, PPR, CCPP and pox diseases) from 2003 onwards. Practical strategies for appropriate control of priority diseases are devised, based on outputs of NSES (incidence figures and mapping of the endemic areas, the number and results of samples analyzed) and are approved by Government for funding, from year 2002 onwards.	Reports on file at OAU/IBAR and OIE Strategy documents approved by Ministry of Agriculture Ministry of Agriculture budgets for 2003/ 2004	Reliable diagnostic methods are effectively transferred to CVL Soba [PACE Epidemiological Unit's technical evaluation reports]

Preconditions:

The government services needed to implement the National Component are all in place.

Sudan's international relations remain conductive to project implementation and international trade in livestock and animal produc

Government services in OLS northern sector areas neighbouring OLSSS are functioning effectively.

FAO-OLS and the NGOs operating in the OLS areas received collateral funding for their core activities and remain an effective presence in the areas of importance to the PACE projet.

The CVL in Soba and the regional laboratory in Kenya will maintain their capability to test samples for rinderpest serology and differential diagnosis.

ANNEX 2

BUDGET OVERVIEW FOR DISTRIBUTION OF EDF FUNDS (GLOBAL PLAN)

PACE Northern Sudan - Budget Overview for Distribution of EDF Funds (Source: GLOBAL PLAN FOR SUDAN)

Results	Budget line		EC Funds in € year 1	year 2	year 3	year 4	Total year 1 - 4	in %
Result 1: The necessary capacities of veterinary services and effective project management are established and the range of skills required by the national epidemio-surveillance network is broadened and strengtened on a sustainable basis	1.1	Personnel	0	0	0	0	0	
		Project support unit	200,000	200,000	200,000	188,750	788,750	
	1.2	Equipment	0	0	0	0	0	
	1.3	Running costs	0	0	0	0	0	
		Subtotal	**200,000**	**200,000**	**200,000**	**188,750**	**788,750**	**28%**
Result 2: Community-based systems are developed for the effective, coordinated delivery of preventive and curative veterinary services and	2.1	Personnel	0	0	0	0	0	
	2.2	Equipment	15,000	15,000	15,000	13,400	58,400	
	2.3	Running costs	15,000	15,000	10,000	10,000	50,000	
		Subtotal	**30,000**	**30,000**	**25,000**	**23,400**	**108,400**	**4%**
Result 3: Sudan is on schedule to be internationally recognized as freee of Rinderpest disease in 2005	3.1	Personnel	0	0	0	0	0	
	3.2	Equipment	700,000	25,000	25,000	15,000	765,000	
	3.3	Running costs	100,000	225,000	175,000	175,000	675,000	
		Subtotal	**800,000**	**250,000**	**200,000**	**190,000**	**1,440,000**	**50%**
Result 4: A strong basis for the development of appropriate strategies for the control of priority epizoootic diseases is in place within the Depart. AH&EDC	4.1	Personnel	0	0	0	0	0	
	4.2	Equipment	50,000	30,000	20,000	10,000	110,000	
	4.3	Running costs	5,000	50,000	50,000	50,000	155,000	
		Subtotal	**55,000**	**80,000**	**70,000**	**60,000**	**265,000**	9%
	TOTAL		**1,085,000**	**560,000**	**495,000**	**462,150**	**2,602,150**	**91%**
	Contingencies		50,000	100,000	75,000	35,095	260,095	9%
	GRAND TOTAL		***1,135,000***	***660,000***	***570,000***	***497,245***	***2,862,245***	***100%***

ANNEX 3

SERVICE CONTRACT BETWEEN AU/IBAR AND GTZ

SERVICE CONTRACT

Financed under the 8th European Development Fund
Project Number 8/ACP/TPS 32

Between: the Director of the Organization of African Unity/Interafrican Bureau for Animal Resources (OAU/IBAR), REGIONAL AUTHORIZING OFFICER,

hereinafter referred to as the **"Contracting Authority"**, on the one part,

and: Deutsche Gesellschaft für
Technische Zusammenarbeit (GTZ) GmbH, Germany

hereinafter referred to as the **"Consultant"**, on the other part.

IT IS HEREBY AGREED AS FOLLOWS:

1. The Contracting Authority hereby entrusts to the Consultant, who accepts on the terms set out below, the task of providing technical assistance to some National projects of the Pan-African Programme for the Control of Epizootics (PACE), and establishing and maintaining a Project Management Unit which will support the fight against rinderpest in Northern Sudan.

2. A description of the services to be carried out by the Consultant pursuant this Contract as well as all the conditions and clauses of the contract are given in the Annexes hereto, and in particular in the terms of reference set out in Annex A of this contract.

3. These special conditions supplement and/or amend the General Conditions for Service Contracts financed by the EDF. Unless otherwise provided in these Special Conditions, the General Conditions referred to above remain fully applicable.

   'Where a divergence exists between the provisions of the various documents, they shall be interpreted in accordance with the following order of precedence:

   -this contract form

   -Notification of award of the contract

   -the tender form

   -The Special Conditions of the contract

   -Annex A-Terms of reference

   -Annex B-Organisation, methods and work plan

   -Annex C-Description and qualifications of personnel

   -Annex D-Price breakdown/remuneration

AFRICAN UNION
INTERAFRICAN BUREAU FOR ANIMAL RESOURCES

-The General Conditions for Service Contracts financed by the European Development Fund (Annex IV to Decision N° 3/90 of the ACP-EEC Council of Ministers of 29th March 1990)

-Annex G-Tax and customs arrangements

The contract price shall be Kenya Shilling (KSh) 439 018 008 (Four hundred thirty nine million-eighteen thousand and eight only) equivalent to Euro 5,570,121.15 (Five million five hundred and seventy thousand one hundred and twenty one 15/00 only) on the basis of the following exchange rate: 1 Euro = 78.816600 Kenya Shillings, in accordance with Annex E (Price Breakdown) and with Article 14 of the Instructions to Tenderers.

SPECIAL CONDITIONS OF THE CONTRACT

The Special Conditions supplement and/or amend the General Conditions for Service Contracts financed by the European Development Fund (Vm/E/439/90-EN). Unless otherwise provided in these Special Conditions, the General Conditions referred to above remain fully applicable.

Art. 1 Definitions

The Contracting Authority: Authorising Officer.	The Director of OAU/IBAR, Nairobi, Kenya, Regional
The Supervisor:	The PACE Coordinator; OAU/IBAR, Nairobi, Kenya
Contract Currency:	The Kenya Shilling (Ksh)
Project:	Pan-African Program for the Control of Epizootics (PACE)

Art. 2 Law and language of the contract

(3) The language of the contract and all related communication shall be English.

Art. 3 Order of precedence of contract documents

(1) The order of precedence of contract documents shall be as follows:

- The contract form
- Notification of award of the contract
- The tender form
- The Special Conditions of the contract
- Annex A-Terms of reference
- Annex B-Organisation, methods and work plan

- Annex C-Description and qualifications of personnel
- Annex D-Price breakdown/remuneration

Art. 7 Sub-contracting

Sub-contracting shall be allowed under this contract.

Proposals for any sub-contract shall be submitted one month in advance to the Contracting Authority, stating the identity of the sub-contractor and the tasks to be carried out by him.

Art. 9 Assistance with local regulations

(4) Throughout the duration of the contract, the Contracting Authority shall ensure that the Consultant's experts will be provided by the National PACE Co-ordinators with appropriate furnished office accommodation in the National PACE Co-ordination Units.

(5) The Contracting Authority shall ensure that Department of Animal Health & Epizootic Diseases Control, of the Ministry of Animal Resources, Sudan will provide the Consultant with the required local counterpart personnel for the implementation of the project on a full-time basis.

Art. 10 General obligations

(2) The Technical Assistance team will report to the OAU/DBAR PACE Programme Co-ordinator (contract supervisor), or in the event of any administrative reorganization, the appropriate Authority as designated by this Contracting Authority. Duties and responsibilities to be carried out by each expert are specified in the terms of reference in Annex A.

Art. 14 Indemnification

(1) The Consultant's liability under Article 14.2 (b) shall be confined to the contract price.

Art. 15 Medical and insurance arrangements

(4) The sum of the insurance policy required under paragraph a) and d) shall be as foreseen by the applicable laws and regulations of the country of the Consultant's registered place of business. The sum of the insurance policy required under paragraph c) shall be as foreseen by the laws and regulations of Kenya. The sum of the insurance policy required under paragraph b) shall be, as a minimum, the contract price.

Art. 17 The scope of the services

(2) The Contract is a framework contract for the provision of services, the nature and scope of which are described in the terms of reference set out in Annex A. It

comprises the provision of long-term and short-term technical assistance in selected countries where national PACE projects are on going. In Northern Sudan, it comprises the establishment and maintenance of a Project Management Unit that will support the activities of several partners in the implementation of the PACE project. In addition, the Consultant shall provide support for the procurement of equipment (limited amount). The Supervisor and the Delegation in the country of performance shall approve short-term consultancies before their engagement.

The Consultant shall carry out these tasks and act as advisor to the supervisor: the Consultant shall provide assistance for solving any technical, financial or economic problem that may confront its agents in the performance of their duties.

The Consultant shall, on his own initiative or at the Contracting Authority's request, provide the Contracting Authority with all information and explanation concerning performance of the contract or relating directly to it.

This information shall be given either in the reports provided for in the contract or in an appropriate manner in the case of any important fact or decision that, in the opinion of the Consultant, should be brought immediately to the attention of the Contracting Authority and/or the project supervisor.

Art. 18 Provision of personnel

(6) Except in the case of sickness, accident or death, the Consultant, in addition to bearing the costs arising out of or incidental to the replacement of long-term personnel, will assure at his cost the simultaneous presence of the expert who is leaving and his/her replacement for a period of 1 month, or accept a reduction in the corresponding fees of 25% per month over 4 months.

Art. 19 Staff and equipment

(1) The qualifications and other requirements to be met by the consultant's experts are set out in Annex A (Terms of reference).

The Consultant shall perform this contract with the long-term personnel referred to in is tender. Acceptance of the tender by the Contracting Authority does constitute acceptance of all the personnel referred to in the consultant's tender (see Annexes C and D). An independent, external evaluation may be carried out mid-way through the project. The findings of the mid-term evaluation will be studied with a view to making any changes in the design or the management of the project, to ensure that project achievement indicators continue to be met. At this stage, some changes in the tasks and/or responsibilities of the experts deployed in the project could be envisaged.

(4) The supervisor will notify his request for the mobilization of each long term expert to be supplied by the Consultant. The expert shall start work within four

(4) weeks of receipt of the notification of the supervisor's acceptance of a candidate.

(7) The Consultant shall provide each individual expert with a suitable vehicle, computer and other office equipment. These goods will remain the property of the consultant.

Other equipment and consumables needed for the 'Fight against lineage 1 project' will be purchased in the name of the Supervisor in accordance with the terms of reference and the annual administrative orders for this project. EDF procedures and the subsequent rule of origin are applicable to these equipments and consumables.

(8)

Upon completion of the project, the equipment purchased in the name of the Supervisor shall be handed over to the Contracting Authority.

All relevant documentation related to the procurement procedure shall be provided at the time of invoicing for reimbursement.

(7) The Consultant shall be responsible for the arrangements of hotel or other accommodation in each country of deployment, and during field missions.

Art. 21 Commencement orders

(1) The contract shall enter into force on the date of its notification. Performance of the contract shall start on the date of arrival of the first expert.

Art. 22 Period of performance

(1) The period of performance of the contract is hereby set in principle at twenty two (22) months.

Art. 24 Delays in performance

(1) The damages per day of delay provided for in Article 24.1 (concerning submission of reports) shall be set at 0.1% of the value of the contract or, up to 15% of the total contract price.

The Consultant will be liable for damages equal to 1/1000th of the estimated fees value of the contract per day in the event of unjustified absence from duty on the part of the technical assistants.



Art. 28 Leave entitlement

(1) The leave entitlement of the Consultant's long-term expatriate agents shall be calculated on the basis of four (4) calendar days leave per man-month of performance, plus 3 days of travel time, providing for a total maximum annual leave entitlement of 45 calendar days. Short-term experts shall not be entitled to take leave.

The leave entitlement of local personnel shall be established in accordance with the law of the country of posting.

Leave period shall not be paid to the Consultant.

Art. 29 Information

The nature and frequency of periodic reports are stipulated in Annex A.

Art. 31 Submission of Reports

The Consultant shall forward four (4) copies of the report referred to in Article 31.1 to the Supervisor not later than 30 days before completion of the services.

Three copies will be presented to the Delegation of the European Commission in Kenya.

Art. 32 Approval of reports and documents

(2) The Contracting Authority in consultation with the Delegation of the European Commission in Kenya, shall take a decision on the reports and documents referred to in Article 31 within 2 months (60 days). If no comment is made within this period, the report/document is deemed approved.

Art. 33 General provisions

(1) The currency of the contract is the Kenya Shilling.

All payments under the contract shall be as follows:

(a) 0% of the Fees and Direct Costs in Kenya Shillings

and

(b) 100% of the Fees and Direct Costs in Euro or in the currency of the country where the Consultant has his registered place of business, *viz*

The exchange rate shall be 0,01268768 Euro = 1 KSh (local currency),

calculated in accordance with Article 14 of the instructions to tenderers. Payments for reimbursable expenses on the basis of original supporting documents shall be made in Euro or in currency of the country where the Consultant has his registered place of business. Any conversion from other currencies shall be calculated on the basis of the rates published in the Official Journal of the European Communities, which were in force on the first working day of the month in which the expenses were incurred.

hi the case of currencies not quoted in the Official Journal conversion shall be calculated on the basis of the rates published in the Financial Times on the first Tuesday of the month in which the expenses were incurred.

Payments shall be made to the following account(s):

(a) For Euro (the chosen foreign currency) payments:

Commerzbank Frankfurt/Main	Account-No: 5858 600-00 XEU
Neue Mainzer Str.32-36	BIC Code: COBADEFFXXX
60311 Frankfurt/Main	Sort Code: 500 400 00

(b) For the Kenya Shilling payments: not required

Where payments are to be made in the local currency, they must be through the intermediary of a bank established in such country.

Where payments are to be made in EURO or in a currency of the EU, they must be through the intermediary of a bank in the EU.

(3) This is a composite contract based partly on unit prices (professional fees and other fixed costs) and partly on reimbursable items. Line D of the price breakdown (operational expenditures) for Sudan will be treated as reimbursables.

Reimbursable expenditures will be paid on production of original supporting documents or audited accounts. The amount for unit prices is fixed at Annex E, Line D, reimbursable and lump sum costs are estimated at Annex E, Line B + C + D. The total estimated value of the contract is thus (see Annex I for details).

(4) The value of the contract will be expressed in KSh.

Art. 34 Advances

(1) Advances may be made to the Consultant at his request. Any advance shall be covered by a guarantee for the same amount expressed in the same currency.

(2) The total amount of an advance on the fixed and direct costs of the budget breakdown shall not exceed 20% of the addition of lines A and B of the budget breakdown.

(8) Repayment of the advance referred to in Article 34.1 shall be made by deduction from interim payments on account or from any balance due to the Consultant. Repayment shall begin when the amount of the sums due under the contract reach 20% of the contract price. Repayment must be completed when the amount reaches 80%. The amount to be deducted from each interim payment shall be calculated using the following formula:

$$R = \frac{Va}{Vt \times 0.8} \times D$$

where

R = the amount to be repaid
Va = the amount of the advance
Vt = the initial value of the contract
D = the amount of the interim payment

Repayments shall be made in the same currency as that of the advance.

(9) An additional advance may be granted, at the consultant's request, to partially cover each annual cost estimate of the operations in Sudan (line D of the price breakdown). This advance will be the subject of a separate bank guarantee that will remain valid until all amounts have been justified and any balance reimbursed. The amount of this advance and the conditions of its repayment will be defined in the administrative orders which will govern the use of the line D of the price breakdown. It will not exceed in any case the forecast expenditure for the first six months of the annual cost estimate.

Art. 35 Payment procedure

(4) The amount of the interim payments shall be 90% of the value of the Fees and Direct Costs to which it relates; the remaining 10% thus withheld shall be paid as a final balance

(5) Payments will be made quarterly in arrears. These payments are in the nature of interim payments and do not relieve the Consultant of his contractual obligation in respect of the period concerned. Fixed costs are not payable during leave periods.

For costs based on reimbursement, payment shall be made on production of original invoices together with all relevant original supporting documentation,

including air ticket stubs. Original documentation is essential. Copies shall not be considered. In the operational costs of the project in northern Sudan, for those reimbursable costs related to the detailed breakdown of costs, payment and disbursement details shall be provided according to the annual Administrative Order referred to in Annex A. Procurement expenses related to equipment shall be treated as reimbursable. Procurement shall be carried out by the Consultant on behalf of the Contracting Authority.

(7) Requests for payments of fixed costs and reimbursables over the same period shall be submitted simultaneously. For each interim payment, the Consultant shall forward the following documents:

a) 1 original invoice and one copy to the Head of Delegation of the EC, Kenya

b) 1 original invoice and 1 copy to the Contracting Authority

d) One copy of the invoice and the original supporting documents to the Financial controller of the PACE program, Nairobi

e) An itemized statement of the amounts payable for each period concerning the services rendered by the Consultant will accompany each invoice. This will include for each long term TA a summary sheet indicating his presence and days of mission in his/her country of performance. This summary sheet will be endorsed by the National Authorities and the local Delegation of the EC; in the case of experts working in more than one country, the appropriate PACE Regional Co-ordinator and the Delegation of the EC in Kenya shall endorse these sheets.

(10) Payment of the 10% balance will be due annually upon approval of the annual report by the supervisor and the Delegation of the European Commission in Kenya..

Art. 36 Travel and Transport

(1) For agents recruited outside the country of performance, tickets for initial departure and final return will be reimbursed. Transport costs for the expert's family (spouse and dependent children) will also be reimbursed where his continued work in Kenya is scheduled to last more than six (6) months.

It should be noted that only economy class air tickets direct between his place of residence and the duty station are reimbursed. If the expatriate and his family travels other than economy and/or by an indirect route, original documentation must be provided to indicate the cost of the direct economy class fares at the time of travel.

In addition, the Contracting Authority will also meet the cost of transporting the expatriate long-term experts, their spouses and dependent children from their country of temporary residence/deployment to their usual place of residence and return, for the purpose of leave, after each year of effective work.

(2) For agents recruited outside the country of performance, transport of luggage out at the beginning of contract and back at the termination of contract will be reimbursed. There will be no additional provision for transport of luggage in case of an extension of the contract. The luggage for which transport will be reimbursed includes personal effects and articles necessary for implementation of the contract, within the following limits:

accompanied baggage:	20 kg per person
unaccompanied baggage:	200 kg for the expert + 100 kg per family member

(3) The costs pertaining to the transport of documents, equipment, materials and other shall be deemed to be included in the lump sums or unit prices indicated in the Price Breakdown (Annex D) and shall not be reimbursed separately.

(4) The reimbursement of travel tickets and accompanied baggage shall only be made against the presentation of original tickets and boarding cards effectively used.

Art. 37 Revision of Prices

Provided it can be justified, a revision of the unit prices may take place at the beginning of the 3rd year after the signature of the contract. The revision will apply to the sums due for services rendered thereafter. The formula to be applied for price revision is as follows:

For the local component: $P = Po \times (0,20 + 0,80\ Z/Zo)$

For the foreign component: $P = Po \times (0,20 + 0,80\ E/Eo)$

Where:

P = revised rate

Po = rate shown in the contract

Z = Z = cost of living index in Kenya for the twenty-fifth (25th) *month* following the signature of the contract by the Contracting Authority Zo = cost of living index in Kenya for the month preceding the date set for the submission of tenders

E = cost of living index in the country of the Consultant's registered place of business for thejwenty-fifth (25th) month following the signature of the contract by the Contracting Authority

Eo = cost of living index in the country of the Consultant's registered place of business for the month preceding the date set for the submission of tenders

N.B. E and Eo derive from Eurostat tables and Z and Zo from the official statistics offices of the Republic of Kenya. If the foreign currency is the Euro, E and Eo represent the Eurostat index for the EU.

Art. 38 Delayed payments

(1) Where payment is in an European currency, the interest rate shall be one and a half percentage points higher than that applied by the European Central Bank to its main refinancing operations, with effect from the first day of the month in which the payment should have been made. This rate is published each month by the Commission in the Official Journal of the European Communities (OJ).

Where payment is in any other currency, the rate shall be the rediscount rate applied by the Central Bank of the State of that currency.

Interest on late payment shall be payable for the time elapsed between the end of the 90-day period within which the Commission should have made the payment and the date on which the late payment was made.

Art. 40 Breach of contract

(1) A Consultant who changes the composition of the personnel for reasons other than those provided for in Article 18.4, Article 18.6 and Article 43, shall be considered in breach of contract.

(3) Where there are replacements as referred to in Para. 1, and without prejudice to the application of articles 40(2)(b)and 18(2), (3), (5) and (6), the Contracting Authority may claim compensation equivalent to 10% of the total contractual amount to be paid to the agent or agents concerned.

Art. 42 Termination by the Consultant

(3) The limit referred to shall be 20% of the value of the contract.

Art. 45 Settlement of disputes

(2) The arrangements referred to in Article 45.2 of the General Conditions are as follows:

a) The procedure to be followed for an amicable settlement of a dispute shall be opened by one party notifying the other party of the dispute, in writing, and proposing recourse to an amicable settlement, in accordance with arrangements to be agreed and in accordance with this Article and Article 45 of the General Conditions.

b) The deadline for carrying out the amicable settlement shall be no more than 30 days following the party's notification, referred to in sub-paragraph 45.2(a).

The maximum period permissible for coming to an amicable settlement shall be 60 days from the date of notification. The parties may agree, in writing, to extend this period by up to a further 60 days period.

c) The deadline referred to in Article 45.2(c) of the General Conditions, within which there should be a response to requests, shall be 8 days from receipt of the said requests. Where this deadline is not kept, the party that has made the request shall send a reminder. Where there is no response to the reminder within 8 days of its receipt, the attempt for an amicable settlement shall be deemed to have failed.

(3) The parties may agree that the conciliation procedure referred to in Article 45.3 of the General Conditions shall be that provided for in Article 5 of the Procedural Rules on conciliation and arbitration referred to in Article 45.2(b).

Where the European Commission is asked to intervene in an amicable settlement, such request may be made only when all internal means of administrative recourse have been exhausted, in accordance with Articles 4 and 5.1 of the Procedural Rules on conciliation and arbitration of contracts financed by the EDF, adopted by Decision of the ACP-EEC Council of Ministers, No. 3/90 of 29 March 1990 (OJ L382 of 31.12.90).

Intervention by the European Commission in an amicable settlement may take the form of an intervention by the Commission's Delegation on the spot or by the Commission's services in Brussels, as agreed between the parties concerned and the Commission.

(5) b) The procedural rules referred to in Article 45.5(b)(ii) of the General Conditions shall be taken to mean those provided for in the Procedural Rules on conciliation and arbitration referred to above.

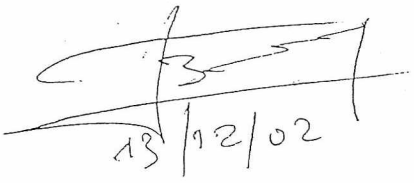
Art. 46 Signatures and addresses

The addresses for notification relating to performance of this contract are:

Consultant

GTZ International Services Central and East Africa
Lenana Road, Kilimani
P.O.Box 41607
Nairobi, GPO 00100
Kenya
Tel. +254 2 575088
Fax. +254 2 573228

Supervisor



PACE Programme Co-ordinator
OAU/IBAR
P.O. Box 3 0786

Nairobi, Kenya
Telephone No.: 338544
Fax: 332046/220546

Contracting Authority

Regional Authorizing Officer of the EDF
OAU/BAR
P.O. Box 30786
Nairobi, Kenya
Telephone No.: 338544
Fax No.: 332046/220546

Delegation of the European Commission in Kenya

P.O. Box 45119
Nairobi, Kenya
Telephone No.: 712905/6
Fax No.: 711954

SIGNATURES

For the Consultant

Date 11.12.2002

For the Contracting Authority
REGIONAL AUTHORIZING OFFICER

Date 12/12/02

Endorsement for financing

Head of the Delegation of the
European Commission in Kenya

Date 20/12/02

ANNEX 4

IMPLEMENTING PROCEDURES OF THE PMU

IMPLEMENTING PROCEDURES

1. Preparation, awarding and implementation of the contracts to be concluded by the PMU .

1.1 Responsibilities and budget

- The PMU is entrusted to implement the activities listed in the annex .A, Appendix C. of the Terms of Reference of the "..PACE." project.

- The total amount available is the equivalent of. 1,2 million Euro.

1.2 Selection of subcontractors and suppliers

- Only companies, individuals and goods with a nationality of the European Community (except from Austria, Finland and Sweden)[14], ACP and OCT countries or territories are eligible to become subcontractors.

- No sub-contracting to companies in any way connected to the PMU is allowed. The contractors own company/companies is/are not eligible to carry out the activities financed under this contract as described in the Terms of Reference and in accordance with the procedures indicated in point 1.3 below.

1.3 Work-programme implementation procedures

- The PMU shall implement the activities foreseen in the Terms of Reference through approved annual work-programmes. The PMU shall submit, annually, to the Project Steering Committee, the NAO and the Delegation of the European Commission, draft work-programmes, four in total over the life of the project. The work-programmes shall contain a detailed budget. The PMU will be responsible for making amendments where necessary until approved by the Project Steering Committee. The Contracting Authority shall take a decision concerning work-programmes within .30 days. The work-programme shall contain detailed budget estimates for individual project activities.

Once the annual work-programme is approved by the Project Steering Committee, the NAO and the Delegation, the fonds needed to cover the first 3 months of the implementation of the work-programme will be transferred to the "EDF project imprest account" managed by the PMU under the procedures foreseen in point 2 hereinafter. Successive replenishments will take place quarterly, on the basis of the estimated expenditures for the next quarter and taking into account the balance available on the "EDF project imprest account".

As regard to accounting procedures, the PMU shall maintain, on behalf of the NAO, exact and up-to-date records of ail expenditure incurred within the work-programme. The PMU shall submit requests for additional funding replenishment to the NAO on the basis of fully documented statements and original supporting documents.

During implementation, 2 audits are to be carried out by independent auditors to check if expenditure was incurred in compliance with the work-programme, annual budget, agreed implementation procedures (eg. those governing the acquisition of supplies and services) and generally accepted accounting rules. The auditors will also verify the existence of original documentation justifying expenditure and the reconciliation between bank accounts and programme cash balances.

The PMU shall report on a quarterly basis on the execution of the budget. The report shall contain a general overview of the progress made and it shall give explanantions of every decision concerning budget variations.

The closure of each work-programme shall take place not later than six months after the expiration date. No claims can be made retroactively after that period.

Reporting shall also cover a separate description of the contributions in cash and kind from the relevant Government and of the project's own revenues.

1.4 Procurement procedures

1.4.1 The recruitment of technical assistance

- The PMU is entitled to contract-out activities up to the amount of 150.000 EURO per activity through direct agreement following consultation of at least 3 companies. Beyond this amount a restricted tender procedure shall apply.

- Service contracts shall specify the inputs (man-days per month, duration of travel, per diem, etc.).

- In the case of contracts with consultancy firms the PMU shall submit evaluation of offers, terms of reference and the draft contract to the NAO and the Delegation, who shall make comments within 20 working days and will otherwise be considered to have given their approval.

- Any derogation from rules of origin require prior approval by the Delegation.

1.4.2 Supplies

Where supplies are purchased under the work-programme:

- for values up to 5,000 EURO the direct agreement procedure shall apply,

- for values between 5,000 and 25,000 EURO a minimum of 3 quotations shall be obtained,

- for values between 25,000 EURO and 100,000 EURO a restricted tendering procedure under EDF regulations shall apply,

- for values exceeding 100,000 EURO an open international tender procedure shall apply.

- In the latter two cases, tender documents, short-lists where appropriate, and recommendations for award of contract shall on their request be subject to the approval of the NAO and the Head of Delegation, who may seek the endorsement of the Project Steering Committee, when appropriate.

2. Bank accounts

2.1 *Opening of bank accounts*

2.1.1 Account in EURO

- At the start of the implementation of the contract, the PMU shall open a bank account in EURO on behalf of the Contracting Authority within a bank in Germany by which all the payments in
European currencies shall be carried out for the services and supplies which are covered by the annual Work-programme. The account shall be established and maintained in EURO and shall earn interest.

The PMU shall receive from the Contracting Authority the delegated authority necessary to carry out the payments. This delegation is valid only if and when the bank guarantee[5] referred to in point 2.2.2 has been provided by the Consultant and only for the validity term of this guarantee.

2.1.2 Account in the currency of the Contracting Authority

At the start of the implementation of the contract, the PMU shall also open a bank account on behalf of the Contracting Authority within the country and in the currency of the Contracting Authority. It shall be established and maintained in the local currency and shall earn interest. The PMU shall have the same obligations as described hereunder in point 2.1.1.

2.2 Management of the bank accounts

2.2.1 General

- The bank accounts shall be managed by the PMU in accordance with the terms of the contract.

- The PMU shall submit quarterly reports to the Contracting Authority with copy to the Delegation The reports shall contain information on all transactions carried out to the order and for account of the Contracting Authority.

- The earned interest shall accrue the bank accounts and the corresponding amounts shall be indicated in the monthly reports. The amounts of the earned interests shall become "own ressources" of the project and shall be used to finance activities under the programme.

- The PMU shall manage any amount transferred on the bank accounts for the absolute benefit ofthe Contracting Authority. The account shall remain free from any of its own obligations in connection with any kind of relation, charges, rights or disputes, notwithstanding any notification or compliant related to the accounts.

2.2.2 Provision of the funds by the Contracting Authority

- At the request of the PMU and after having provided the Contracting Authority with a bank guarantee[8] of at least the amount of the advance

[8] The provision of a bank guarantee is not required in the case where the function of Imprest holder

requested, an initial advance sufficient to cover the first 3 months of the implementation of the work-programme will be transferred to the "EDF project imprest account" managed by the PMU.

The bank guarantee will have to be valid until the approval by the Contracting Authority of the final expenditure statement under the project. At any time and at the request of the Consultant, the guarantee can be reduced. However, the guarantee shall never be lower than the amount of the unjustified advance.

The bank guarantee to be provided by the PMU shall be established for the benefit of the Contracting Authority.

2.2.3 Payments carried out by the PMU

All payments to service providers and suppliers related to the implementation of this contract will have to be carried out by the PMU on behalf of the Contracting Authority through the "EDF project imprest account" in EURO or in the currency of the Contracting Authority.

No other payment shall be carried out of the "EDF project imprest account".

The payment to foreign service providers and suppliers shall be carried out in EURO, when possible or otherwise to be agreed between the contracting parties and the PMU in accordance with commercial and international practices in so far these are not in conflict and/or are incompatible with the principles of sound financial management.

» Where the payment takes place in another currency than those of the "EDF Project imprest account", the applicable exchange rate is the rate applied by the bank where the bank account for the transaction in question is held.

ANNEX 5

5.1 PROVISION OF TECHNICAL ASSISTANCE FOR THE NATIONAL PACE PROGRAMMES

TERMS OF REFERENCE

PROVISION OF TECHNICAL ASSISTANCE FOR THE NATIONAL PACE PROGRAMMES

2. 1. INTRODUCTION 1.1

BACKGROUND

Livestock constitute an important part of the economy in Africa. Apart from 160 million cattle, there are large populations of wildlife, small ruminants, pigs and poultry, in addition to camels and equines, the importance of which varies from one ecological region to another. Animal diseases represent a serious constraint on socio-economic development and major losses arise from their occurrence, particularly from the epizootic diseases whose control requires effective collaboration across international borders. The epizootics included in the "List A diseases" of the Office Internationale des Epizootics (OIE) are defined as "transmissible diseases which have the potential for very serious and rapid spread, irrespective of national borders, which are of serious socio-economic or public health consequence and which are of major importance in the international trade of animals and animal products." Rinderpest is a classical example of these diseases. Some of the OIE "List B diseases" are also important epizootics.

In the 1980s, there was a widespread resurgence of rinderpest in many countries across Africa. In response, the Directors of OAU Member States called upon the OAU Secretary General to take urgent action. In 1986, the Organization of African Unity Interafrican Bureau for Animal Resources (OAU/IBAR), with financial and technical support from donors (notably the European Union), launched the Pan-African Rinderpest Campaign (PARC), which ended in 1999. Over a period of 13 years, PARC largely achieved its primary objective and removed rinderpest from all but a few countries in eastern Africa; it also produced major policy changes to improve the sustainability of veterinary services, in many countries. The policy issues that PARC addressed were:

Cost recovery
Liberalization of policies for drug importation and distribution
Privatization of animal health services
Sanitary mandates
Strengthening associations/cooperatives
Establishment of animal health development levy

PARC's initial strategy for the control and progressive eradication of rinderpest relied on raising national herd immunity to stop transmission of the virus, using quality-controlled vaccines. Subsequently, mass vaccinations were reduced and succeeded by active disease search, and containment of rinderpest outbreaks. PARC also emphasized a sub-regional approach and established a cordon sanitaire in Central Africa to prevent the westerly spread of the disease. Consequently, PARC has provided PACE with a basis for its rinderpest eradication strategy and for achieving its other major objectives.

Other epizootic diseases present an increasing constraint in many sub-Saharan countries. Through several initiatives, some assisted by the Food and Agriculture

Organization (FAO), national and sub-regional strategies have been developed to assist the control of other epizootics. These will be re-examined during the PACE Programme.

The PACE Programme will contribute to the goal of reducing poverty among those involved in stock fanning by improving productivity, thereby improving their livelihoods and enhancing food security.

The vision is improved prevention and progressive control of the major epizootic diseases by providing a sound technical basis and enhanced national decision support for strategic animal health management, at national and regional levels.

The purpose of the PACE Programme is to revitalize animal health services through strengthening national and regional capabilities to sustain surveillance. as well as strategic control of major animal diseases, and to improve animal health care. in 32 sub-Saharan countries.

1.2 THE OVERALL STRATEGY FOR THE PACE PROGRAMME

The Organization of African Unity Interafrican Bureau for Animal Resources (OAU/IBAR) will implement the PACE Programme through national. sub-regional and regional programmes. The PACE Programme Co-ordination Unit (PCU) at OAU/IBAR will be responsible for the coherence of programme implementation at all levels. The PCU will have the managerial and technical capacity to assess operations and to keep them in line with the Programme's objectives.

It is essential that the investments and achievements made during PARC be protected. The basic strategy of PACE is to build on the foundation provided by PARC. strengthen national and regional capacities for the sustainable surveillance and strategic control of priority epizootic diseases, and ensure that countries continue to follow international guidelines for the verification of freedom from rinderpest infection, thereby safeguarding animal health in Africa.

A special fund will be available to meet certain field and operational costs of technical support to PACE countries in an emergency.

Regional co-operation will be an important feature of the PACE Programme and it is envisaged that a multiplier effect will be produced through regional and sub-regional meetings and joint actions that the Co-ordination Units will be responsible for organizing.

The activities of national PACE programmes will always fall under four headings or thrusts, although the priority accorded to each will vary within and between regions. The strategic orientation of PACE related each thrust is outlined below.

1.3 THE FOUR THRUSTS OF THE PACE PROGRAMME

1.3.1 Reinforcing animal epidemiology services and control of the major diseases by enhancing national capacities

The development of control strategies requires reliable information, which, in turn, depends upon the existence of effective disease surveillance systems. These systems 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, monitoring and evaluation of disease control by veterinary personnel.

Disease surveillance is a core function of national veterinary authorities. Whereas PARC established and strengthened networks primarily for the surveillance of rinderpest, in support of its control and eradication, PACE will further strengthen them for the long-term surveillance of other priority animal diseases. PACE will provide levels of support that are consistent with the affordability and sustainability of these networks at the national level.

The major activities of this thrust include the development and strengthening of reporting systems for major animal diseases, in accordance with national, regional and international obligations. PACE will also link these systems with each other.

Strengthened, accelerated and harmonized reporting systems will feed information into the national and regional systems to provide a basic framework for understanding the major disease constraints and facilitate safe international trade in livestock and their products.

Disease surveillance to detect and investigate epidemiologically significant events will be strengthened. Passive and active disease surveillance techniques will be strengthened and developed to contribute data to clarify the determinants of disease occurrence. In this general context, PACE will promote the active participation of all stakeholders in surveillance networks. For active disease surveillance and purposive epidemiological investigations, attention will focus on specific disease syndromes of local and transboundary importance, and the capacity will be established for disease surveillance in important wildlife populations at national and sub-regional levels.

2.1.1. Laboratory capabilities will be strengthened to permit the differential diagnosis of the major diseases to ensure the accuracy of disease data.

In close collaboration with national experts, regional and international technical assistance will develop and strengthen national capacity particularly with regard to disease data analysis and communication. National units will be developed to manage and analyze data on disease incidence to form a basis for the development of national and regional strategies. Elements of these data management systems will include:

* disease data management to handle the flow of information
* disease mapping
* epidemiological analysis
* appraisal of economic impact

The main development theme of the PACE Programme is to build the institutional capacity of the veterinary services in participating countries and, therefore, PACE will provide appropriate skills-oriented training to nationals who will manage these surveillance and decision support systems.

The Programme's Co-ordination Units will promote dialogue with national governments to increase the financial contributions to the maintenance of disease surveillance networks. This important activity will enhance the long-term sustainability of animal health in the PACE countries.

1.3.2 Greater privatization of veterinary services and public/private linkages in the field to improve the distribution of veterinary services and medicines

PACE will promote the rationalization of veterinary services to ensure that public goods are effectively safeguarded with appropriate involvement of the private sector.

National authorities will be supported to continue the rationalization of the delivery of veterinary services. Veterinary legislation in many countries now permits the involvement of private veterinary practitioners in state veterinary services. Where necessary, national PACE programmes will assist the refinement of legislation and regulations to provide an enabling environment for the private sector. Contractual mechanisms will be developed to engage private sector partners (appropriately qualified private veterinarians and veterinary auxiliaries) for essential disease surveillance and control. Where required this will include the use of community-based animal health workers, primarily in marginalized extensive pastoral communities. PACE will raise the awareness of livestock owners' associations concerning diseases and regulatory requirements, in order to promote their active participation in improved disease surveillance and control.

The Programme will also promote and encourage the development and strengthening of appropriate mechanisms for the distribution of veterinary medicines, to enhance the availability of quality products (drugs and vaccines) to livestock keepers in remote areas.

1.3.3 Rinderpest eradication from Africa through elimination of the last reservoirs and verification of freedom

It is essential that the fight against rinderpest be sustained to safeguard the investments made to date, by achieving the goal of continental eradication of rinderpest, and contributing significantly to the global eradication of the disease.

Activities will focus on identifying, containing and eliminating the residual reservoirs of infection in eastern Africa against a background of intensified verification of rinderpest freedom in compliance with international guidelines (the OIE pathway). Wildlife surveillance will be supported as a pre-requisite for both verifying freedom and disclosing the presence of infection.

PACE will provide rinderpest vaccine where necessary, and will promote the involvement of private veterinarians in vaccination campaigns. However, it is

envisaged that the levels of vaccination in the control of rinderpest will be progressively reduced, as the intensity of surveillance increases and the disease is contained in smaller focuses. This will apply particularly to the fight against lineage 1 in the cordon sanitaire, during or after the second year of implementation. PACE will adopt a flexible approach to strategy formulation that will be based on the availability of sufficient reliable epidemiological data.

With regard to lineage 2, the epidemiological approach of the PACE Programme will be based on the eco-system of Somalia-Kenya-northern Tanzania. Here, pastoral husbandry systems are a prominent feature that result in widespread movement of livestock across international borders, through areas that have abundant wild ungulate populations.

The detailed strategies that the Programme will adopt in the fight against rinderpest will be continuously revised and updated in the light of the results of epidemio-surveillance, and the changing situation at field level. The PACE approach will be based on halting vaccinations as soon as possible and on giving aid to countries to fulfil the OIE procedure for being declared free from rinderpest. PACE will align its blueprint for rinderpest eradication (under review) with that of the Global Rinderpest Eradication Programme (GREP), which currently, is based on the OIE pathway. Both blueprints will be reviewed and updated to reflect the changing situation in the field, as revealed by the results of surveillance conducted under the national PACE programmes.

In all countries, PACE will promote and strengthen emergency preparedness planning to limit the impact of disease emergencies. This will ensure an improved capacity, first, to recognize rapidly evolving disease emergencies and, second, to mount an appropriate rapid reaction to them, both at national and regional levels.

OAU/IBAR will establish a centrally managed emergency fund to assist national authorities to contain outbreaks of rinderpest, and will continue to pay the storage charges for a bank of 1.5 million doses of thermo-stable rinderpest vaccine. These measures will ensure that the PACE Programme could respond rapidly to emergencies. The Programme will not establish individual national emergency funds.

1.3.4 Control of major epizootic diseases

PACE will assist the development of national, sub-regional and regional strategies for the control of major epizootics. The comparative economic advantages of various strategy options will be highlighted by the results of specific studies but PACE will not fund the implementation of such strategies. Epidemiological and economic data will be collected in standard formats to enable their analysis, comparison and mapping at regional level. These activities will be inextricably linked to those outlined in 3.1, above. Based on the analysis of these data, strategies for the control of priority diseases will be developed in a regional context and will facilitate the elaboration of coordinated plans for their exclusion or progressive control.

IBAR will, through the PACE Programme, promote the timely reporting by all countries of the occurrence of OIE List A diseases. This will reinforce the links between the epidemio-surveillance networks and the refinement of strategies for the control of epizootics.

At the pan-African level, OAU/IBAR will strengthen its capacity to co-ordinate national programmes for the control of epizootics. This will include the strengthening of management capabilities, the development of information management systems and emergency preparedness plans.

PACE will re-examine the strategies developed in the regions to control priority epizootics, including rinderpest (see 3.3 above). The FAO assisted the development of a regional strategy in West Africa for the control o f contagious bovine pleuro-pneumonia (CBPP) (Nouakchott, 1998), and has assisted several West African coastal countries through technical cooperation programmes (TCPs) to develop their strategies for the control of African swine fever (ASF).

PACE will continue to fund the Pan-African Veterinary Vaccines Centre (PANVAC), to promote the use of quality assured vaccines in control operations in PACE countries. In view of the anticipated long-term decline in the need for rinderpest vaccine, PACE will encourage the expansion of PANVAC's mandate to enable it to diversify its activities and enhance its sustainability. In addition to providing vaccine quality services, PANVAC could produce and market diagnostic reagents. PACE will provide vaccines in special circumstances, and only if functional cost recovery is in place, principally involving private veterinary practitioners.

The outputs of research commissioned under the PACE Programme, notably on diagnostic tools and vaccines, will be assimilated into control operations, as appropriate.

1.4 REGIONAL STRATEGIES

To attain the objectives outlined above and facilitate the delivery of support by the PACE Common Services, a regional strategy has been developed for PACE that takes into account geopolitics, husbandry systems, disease status and trade.

The Programme's broad thrusts, outlined above, are common to the 32 countries and are the basis for all actions. An indication of how emphasis is to be apportioned and specific elements which national projects are expected to encompass is given in a table for each regional grouping. Within and across these groupings there are common themes and national PACE programmes will address national priorities within the regional requirements identified by PACE.

1.5 OTHER STRATEGIC CONSIDERATIONS

1.5.1 Implementing agents

OAU/IBAR will co-ordinate the implementation of the PACE Programme. The implementation of national PACE programmes will be the responsibility of the national veterinary authorities in each member country. Wherever possible, PACE will encourage and promote the active participation of private veterinarians, veterinary auxiliaries, community-based animal health workers, and farmers' associations in the programme's implementation and in disease surveillance and control.

1.5.2 Factors to ensure sustainability of the PACE Programme's impacts

Each member country of the PACE Programme will sign a memorandum of understanding with the Regional Authorizing Officer of the European Development Fund (EDF). The memorandum includes prerequisites that are aimed at enhancing the sustainability of the Programme's outputs. The governments of PACE member countries shall respect the following requirements:

- the commitment to enter and follow the OEE pathway for the declaration of freedom from rinderpest infection;
- progressively increase government financial commitments to meet the full recurrent costs of a functional and effective epidemic- surveillance network at national level, which shall be linked effectively to regional and continental networks;
- continue the process of privatization of veterinary services and full cost recovery (including vaccinations, except tactical rinderpest vaccination); and,
- undertake continuous environmental impact of stockbreeding management and its impact on rangeland conditions.

At the regional level, the OAU will find the means to maintain essential personnel for epidemiology and socio-economics to ensure the sustainability of IBAR as a centre of excellence to co-ordinate strategic control of major animal diseases

PACE will focus on building the capacity to develop appropriate strategies for animal disease control that will contribute to sustainable socio-economic development.

1.6 ACTIVITIES

The programme activities are divided into national components (74% of the programme's budget) and regional components - or common regional services - (26% of the programme's budget).

1.6.1 The national components

National component activities will vary according to the individual situations in each country but they will always come under four headings:

- Enhanced national capacity for analysis and action in the fields of epidemiology, socio-economics of animal health, communications and project management;

- Improved accessibility and distribution of veterinary services and medicines, based on developing a harmonized approach to the privatization process and coherent links between public services and private operators;
- Fight against rinderpest, based on halting vaccinations as soon as possible and on giving aid to countries to fulfil the (DIE procedure for being declared "countries free from the disease", including active research into the disease, strengthening the surveillance network and setting up rapid response systems;
- Improved control of other epizootic diseases, particularly CBPP, by drawing up epidemiological and socio-economic data enabling the states concerned to assess the advisability of future campaigns based on full cost recovery. Vaccine funds could possibly be made available for the most badly affected areas.

These programme components are all directed at building up the institutional capacity of national animal health systems. They aim to encourage national capacities for planning, implementation/follow-up and viability of actions. A multiplier effect will be produced through regional and sub-regional meetings and is also one of the main responsibilities of the Co-ordination Units.

1.6.2 The regional components

These are common services that will support the implementation of activities at national level. They will be based in the IBAR's offices in Kenya and in the Regional Co-ordination Units and will include:

- An epidemiology unit that will be the heart of the programme. It will include a service with special responsibility for epidemiological monitoring of wildlife. Three sub-units dealing with the rinderpest situation will be set:

  »t* one in Nairobi for the area where rinderpest is still endemic;
  »J» one in Bamako for the countries of West and Central Africa that have ceased anti-rinderpest vaccinations and begun the ODE procedure; »t» one in N'djamena responsible for monitoring the western sanitary cordon which protects West Africa against possible re-infection from East Africa.

- A communications unit based in Nairobi with a sub-office in Bamako, which will build up national expertise in this field. At the request of the other technical units it will produce advisory back-up material at central level, it will promote the programme and help to supplement the veterinary schools curriculum.

- A socio-economics unit will be responsible for developing appropriate instruments for socio-economic evaluation of diseases and devising projects for their control. These will then be transferred to the sub-regional and national levels.

- A unit to back up the organization of the veterinary services (privatization and use of husbandry auxiliaries). It will be responsible for the legal aspects of the privatization process, harmonization of approaches and negotiations with financial intermediaries, and also promoting the participation of husbandry auxiliaries ("paravets" and community-based animal health workers) in vaccination campaigns in remote or unsafe areas, under the supervision of veterinary doctors. Auxiliaries will also take part in improving the distribution of veterinary products and services in the more arid regions, and more generally in the process of privatizing veterinary medicine. This aspect will be carried out in conjunction with other donors such as the DFID,

- A financial unit responsible for establishing real time analytical accounts for the financial control of the programme, accurately estimating the costs of activities to control diseases, and carrying out internal audits at regular intervals.
- Other common services including:

  J a data processing and analysis unit, ii) a follow-up/evaluation structure, iii) a policy and strategy committee for the programme, iv) support for veterinary schools to alter their curriculum.

  t The programme will also support the PANVAC (OAU centre for the quality certification of vaccines) and will commission scientific research institutions according to the needs identified, in particular for work on CBPP.

1.7 IMPLEMENTATION

The programme will provide the operational means: technical assistance, vehicles and office, laboratory and field etc equipment. Training and information campaigns are planned at all levels from the grassroots communities to officials in the services: diagnosis, epidemiology, surveillance of wildlife, geographical information systems, socio-economics of animal health, techniques of communicating with stockbreeders *etc.* Active research campaigns into diseases and the establishment of epidemiological surveillance networks will receive organizational and logistical support and also emergency intervention plans and the means to implement them. African personnel will be trained at both national component and IBAR level to ensure the maintenance of the Centre of Excellence, in particular for the exchange of information on animal health and the preparation of economically and technically justified disease control programmes.

Using the strategy guidelines and a standard national work-programme model provided by the PACE Programme Co-ordination Unit, each PACE country has prepared a global plan for the use of resources, and its first national annual work programme. The procedure of approving the national work programmes is as follows:

- on the initiative of the National Coordinator and using the global plan approved by the Regional Co-ordination Unit, each country will draw up a national annual work programme, in consultation with the local Delegations of the EC. The proposed national work programme will be signed by the National Authorizing Officer[5] and the local delegation of the EC, before being forwarded to the PACE Programme Co-ordination Unit (through the appropriate sub-regional co-ordinators);
- the proposal will be examined by the PACE Programme Co-ordination Unit's technical teams and the financial/management verification team to ensure that it is in line with the Programme as a whole (in terms of the costs recorded, etc.). At that stage, the PACE Programme Co-ordinaiton Unit will compile a proposed regional work programme (a consolidated text for the region, with each national work programme a compulsory annex);

[5] This countersignatue is justified by the fact that the National Authorising Officer is involved in authorising payments.

- the dossier, signed by the Regional Authorizing Officer, will be transmitted to the Commission's lead delegation in Nairobi, and thence to Europeaid, Brussels for commitment for endorsement;
- once the Commission's approval of the financial commitment for the national work programme has been confirmed, an advance will be paid into the imprest account bank account of each national component of the PACE Programme from the EDF paying agent account.

1.8 MONITORING AND EVALUATION OF PACE

The financing agreement of the PACE Programme states: "Monitoring and regular internal evaluations will be the key tasks of the Regional and Sub-regional Coordination Units. The approach adopted will be based on participatory monitoring and evaluation in each country. The overall effectiveness of PACE will be measured in terms of the development of epizootic diseases, documented by the ODE, the number and results of samples and also the improved effectiveness of husbandry services."

The active participation of planners and implementing agents is essential for meaningful monitoring. The tables (above) provide an orientation for logical frameworks that the PACE Common Services and Co-ordination Units will develop. The outcome will guide national programmes. Detailed milestones and baseline data for indicators will be finalized in the course of implementation the first year's work programmes.

The long-term TAs will work under the auspices of the respective Director of Veterinary Services and will report to the Supervisor through the National PACE Co-ordinator. They will work closely with the staff of the respective National PACE Programme, the respective PACE Regional Co-ordination Unit and the staff of the PACE Common Services.

They will maintain close liaison with the PACE Programme Co-ordinator to ensure that their activities and those of the National PACE Programme(s) to which they are attached are effectively co-ordinated at the regional level.

2.2 SHORT-TERM TA

To provide maximum flexibility in the implementation of the PACE Programme, to promote the replication of methods, transfer skills, protocols and approaches, build capacity, mobilize human resources, and achieve the paradigm shifts at which PACE aims, short-term TA will be engaged.

The terms of reference of these short-term TAs will be limited in scope: each input will generally last for less than two months and will complement, or extend the input of, the Common Services staff or the long-term TA. They will report to the PACE Programme Co-ordinator. The overall, indicative provision for short term TA is for 29 person months (which include on person month for the backstopping to the PMU in Khartum).

The short-term TAs provided to national PACE programmes will enable the rapid creation of capacities that will be needed to achieve the results expected of the PACE Programme. They will replicate standard systems by providing on-the-job training transferring technologies and skills. The nature of their work will preclude them from involvement in strategy formulation, planning and monitoring

This approach will create flexibility and will mobilize a wide range of expertise for brief periods. The short-term TAs will provide support in areas and activities including:

- Economics of livestock diseases
- Information management [data management, including GIS, and statistics]
- Communications methods
- Management [Office administration / Project planning / M&E]
- Management information systems
- Organizational development
- Training[1] & personal development
- Laboratory diagnostics [particularly related to CBPP and good laboratory practice]
- Community-based initiatives [PRA and opinion surveys]
- Disease surveillance [Epidemiology / OIE pathway / Risk analysis / Wildlife diseases]
- Financial management [including credit schemes]
- Statistical analysis

[1] Training to be offered in-country/in region whenever possible.

2. ROLE OF TECHNICAL ASSISTANCE TO NATIONAL PACE PROJECTS IN THE PACE PROGRAMME

2.1 LONG-TERM TA

Long-term technical assistance to National PACE projects aims at complementing the technical assistance provided at the regional level for the PACE programme. These are found in the following structures:

- PACE Regional Co-ordination Units for Eastern and Western/Central Africa

  The Co-ordination staff and Main Technical Assistant are responsible to the Director of OAU/IBAR for overall strategy formulation and planning. They create the management framework for the programme, which will enhance capacity building, and facilitate and co-ordinate implementation. They have overall responsibility for monitoring and reporting.

- Staff of the PACE Common Services

  Staff of the PACE Common Services participate in strategy formulation and planning. They define technical standards, develop work plans, assist with the transfer of technologies and skills, assist with training, provide support for the capacity building activities of the programme, and co-ordinate and monitor the implementation of specific activities of national PACE programmes. Their activities are co-ordinated between countries; they organize regional workshops and participate in national workshops. Their predominant role is one of co-ordination, guidance, facilitation, identification of needs, and provision of assistance. Short-term experts will be provided, under the terms of the contracts for Common Services TAs, to assist the delivery of services to national PACE programmes.

Not all countries will, however, receive such support. The list of countries where these TAs will be posted is established by the Supervisor taking into account the following criteria:

- Demand from the Country and/or the EC Delegation considering the track record in the implementation of PARC;
- Epidemiological situation of rinderpest and major epizootic diseases;
- OAU/IB AR's assessment of the capacity of national veterinary services to implement PACE in view of the indicative national PACE budget.

Depending on the situation in the countries, two main categories of long-term technical assistants will be posted:

i Provision of a Technical Assistant for an individual country.

ii Provision of one TA for a cluster or group of countries. The reasoning behind this, is that those groups of countries are in the same and limited geographical zones, and share common and similar problems which can be tackled more efficiently in a concerted manner. Sharing a technical assistant ~~further~~ reduces the financial burden on the national PACE envelopes. One TA will be sought for each group of countries. The TA will be posted in one country and will give backstopping support to other identified countries.

3. OBJECTIVES AND TASKS OF LONG-TERM TECHNICAL ASSISTANTS TO THE NATIONAL PACE PROJECTS

3.1 PRIMARY RESPONSIBILITIES

The long-term Technical Assistants (TAs) to national projects will be primarily responsible for supporting project implementation by assisting with management and financial administration. Their activities will be conducted in the context of capacity building; thus, they should create opportunities for nationals to gain experience under their supervision and should not substitute for nationals in implementation. Long-term TAs will also have an important role in monitoring and reporting.

They will assist the countries to ensure that the PACE national global plan is implemented satisfactorily, making the best possible use of the resources made available and, importantly, will ensure appropriate communication flows between PACE National and the regional co-ordination units, and with the local delegation of the European Commission. The TAs will also provide specific technical expertise.

3.2 THE MAJOR OUTPUTS

The major outputs to be ensured by the technical assistants, in conjunction with the National PACE Co-ordinator in each country, will include:

1. Standardized reporting and information management systems are effectively transferred by the PACE Common Services and are adopted by National disease surveillance units by the end of 2003.
2. Laboratory diagnostics procedures and performance indicators are in place within 12 months of being agreed at PACE regional co-ordination workshops and during country visits.
3. Performance monitoring of contracts between government veterinary departments and private veterinary contractors has been established, evaluated, appropriately adapted and transferred to the government department.
4. Dossiers, which comply with international standards, are available ta support the countries' applications to the Offi for recognition of freedom from rinderpest infection. (These will be derived from data collected in each country following the requirements of the ODE pathway, with support and guidance from the PACE Epidemiological Unit).
5. Reporting to OAU/IBAR has been established in the required formats by the end of the second year of implementation of the respective national PACE programme.
6. Project management systems (including M&E), consistent with the EC's project cycle management-logical framework approach, have been established and transferred to nationals in each country that receives technical assistance, by the end of 2002. (The PACE Programme Co-ordination Unit will provide guidelines for project management).
7. The administration is able to prepare the annual work programmes in the required format, and in a fully participatory manner.

The performance of TAs will be assessed in accordance with the PACE Programme's monitoring system, which is being developed, and which will include performance indicators.

TAs will be expected to undertake frequent field visits (up to one week each month) to assist surveillance teams and other partners of the PACE Programme. It is envisaged that each long-term TA will participate in the annual PACE regional co-ordination meeting.

4. QUALIFICATIONS AND QUALITIES REQUIRED OF THE TECHNICAL ASSISTANTS

Long-term TAs should be specialists in animal health and production, at university level, preferably - but not exclusively - doctors in veterinary medicine. They should have a proven record of working with veterinary services of developing countries, preferably including sub-Saharan Africa.

In addition, each long-term Technical Assistant (TA) will meet the following minimum requirements:

i have at least 10 years of experience in such areas as state veterinary services, private practice, diagnostic veterinary laboratory techniques, project management (planning, implementation and monitoring) and capacity building, with a minimum of 5 years experience in sub-Saharan Africa;

ii be computer literate (word processing, spreadsheet and internet usage);

iii have a good understanding of data management (preferably including geographic information systems);

iv have a good knowledge of EDF procedures would be a distinct advantage; and,

v be fluent in English and have a working knowledge of French for the countries in Eastern Africa, or be fluent in French and have a working knowledge of English for the Western and Central Africa countries.

Comparative advantages will be: experience of managing complex animal health or rural development projects; management, planning and monitoring skills; institutional building capacity; communication and team building qualities.

The short-term experts will each have a minimum of 10 years experience in their respective field of expertise.

The specific requirements related to each long-term TA will vary from country to country and the profile of the TA explained in the appendices to this annex complements the minimum requirements (above), as appropriate.

5. THE FIGHT AGAINST LINEAGE 1 RINDERPEST VIRUS IN SUDAN

5.1 GENERAL

The purpose of the OAU/IBAR's project for the Fight against lineage 1 rinderpest virus in Sudan is to develop and apply appropriate systems for animal disease surveillance and control to ensure the eradication of rinderpest, thereby supporting Sudan's livestock industry and sector.

The fight against Lineage 1 rinderpest virus will be conducted within the framework of the four thrusts of the PACE Programme (Annex 1 to Annex A). However, as the title of the project indicates, it will focus on rinderpest eradication (thrust 3).

The conditions in northern and southern Sudan are markedly different. In the northern areas, the government veterinary services are able to function and institutional support for the livestock sector is well established. In the southern areas, institutional structures are not in place and community-based approaches to the delivery of animal health services have been developed. In both areas (north and south), the Food and Agriculture Organization (FAO) of the United Nations (UN), through the UN's Operation Lifeline Sudan (OLS) provides important support for food security and agriculture, including animal health.

The "Fight against lineage 1 rinderpest virus" will be implemented as two sub-projects that will be co-ordinated by OAU/IBAR through the PACE Programme Co-ordination Unit in Nairobi. Both sub-projects will receive support from the PACE Common Services Units, as necessary and on request. The requirements of the sub-projects will depend on the different circumstances of the northern and southern sectors.

In northern Sudan, the project will establish the necessary capacities for effective project management and national epidemic-surveillance. This latter aspect will be approached with a view to its long-term sustainability.

2.1.1.1. In southern Sudan, the project will establish adequate capacity for effective project management and implementation, from a co-ordination office in Lokichoggio, northern Kenya.

Consequently, the project's overall results will be achieved through the complementary outputs of the sub-projects for northern and southern Sudan. On behalf of OAU/IBAR, the PACE Programme Co-ordination Unit in Nairobi, will co-ordinate the two sub-projects through the Rinderpest Eradication Co-ordination Group for Sudan[2], which will monitor progress, review strategy, and harmonize activities. The Group will meet twice a year, normally immediately before the FAO-OLS livestock co-ordination meetings.

A memorandum of understanding has been agreed between the OAU/IBAR, the Government of Sudan and the Delegation of the European Commission in Sudan to promote collaboration and clearly define roles and responsibilities for the co-ordination and implementation of the project activities.

5.2 SPECIFIC SITUATION IN NORTHERN SUDAN

In the northern sector, a a project management unit (PMU) will administer the EDF funds that will be used to implement the sub-project. The PMU will work in close,

[2] OAU/IBAR will chair this group, which shall comprise the National Authorizing Officer, Head of the Department of Animal Health & Epizootic Disease Control (PACE Sudan Co-ordinator), the FAO-OLS northern and southern sector co-ordinators, the PACE Programme Co-ordinator, the Project Co-ordinator of the southern sector and the Technical Assistant Project Manager for the northern sector. The Head of the Delegation of the European Commission in Sudan shall have observer status.

constant consultation with the Department of Animal Health and Epizootic Diseases Control (DAH&EDC), that will provide premises for the PMU.

The PMU will support the activities agreed in successive work programmes that will be undertaken by the staff of the Department of Animal Health & Epizootic Diseases Control, the Central Veterinary Laboratory, designated regional laboratories, and veterinary field staff. In addition, the PMU will support specific activities of the NGOs that work in the northern sector within the framework of the FAO-OLS livestock programme. Essential equipment, material and reagents will be purchased in accordance with EDF procedures and the sub-project's running costs will be met from the appropriate budget lines.

For the sub-project in the southern sector, the Regional Authorizing Officer will engage an international NGO to lead and co-ordinate the project's activities in that sector.

In Sudan, the administrative role of the national PACE co-ordinator will be more limited than that of national PACE co-ordinators in other countries since EDF funds will be managed by consultants.

6. SCOPE OF SERVICES TO BE PROVIDED BY THE CONSULTANT

6.1 MOBILIZATION OF LONG-TERM TA TO PACE NATIONAL PROJECTS

The consultant is expected to immediately mobilize the approved long-term TAs in the following countries:

- Ethiopia (see Terms of reference in Appendix A)
- Kenya (see Terms of reference in Appendix B)
- Sudan (see Terms of reference in Appendix C)
- Uganda (see Terms of reference in Appendix D)

There may be a requirement for a long-term TA in Tanzania (see draft Terms of reference in Appendix E) from August/September 2002; the decision on whether or not to mobilize a TA will depend upon the outcome of an evaluation that will be conducted in July 2002.

A provision is made for the posting of regional TAs in West Africa. The regional TAs will support a group of countries in a sub-region and they will travel frequently in the region (up to 100 days per annum). They may be mobilized to support eventual PACE Programme's sub-regional initiatives, like for instance for the strategic control of African swine fever (ASF) in West Africa.

The decision to engage long-term TA for other countries will be governed by factors related to the implementation of the national programme. If, in the opinion of the PACE Programme Co-ordination Unit, difficulties arise that impede the smooth implementation of a national PACE programme, the decision to provide medium- to long-term TA to such a country, not listed above, will be made in close collaboration with the Regional Authorizing Officer of the EDF and the European Commission. The consultant is expected to respond to the Contracting Authority's request to mobilize additional TAs within the following time limits:

- The Contracting Authority will submit to the Consultant terms of reference, after having discussed them with the local authorities and the Delegation of the EC in the concerned countries. These terms of reference will comply with the general description of the experts given below.
- Within 4 weeks of receipt of the terms of reference, the Consultant will provide a list of three experts who meet the requirements for the post. A standard "mobilization sheet" will indicate the amount of resources that this expert will use out of the provisions indicated in the general budget.
- Within 4 weeks of receipt of the proposed candidates and accompanying indicative budget, the Contracting Authority, in agreement with the Local (national) authorities and the EC, will notify the Contractor of the acceptance of one of the experts.
- Within a period of 4 weeks from the date of receipt of notification of acceptance of an expert, the consultant will mobilize the expert.

6.2 THE SPECIFIC CASE OF NORTHERN SUDAN

The consultant will provide technical assistance staff to establish and maintain a Project Management Unit (PMU) as defined in the EC's *"Practical Guide for Decentralized Project Management"* (Brussels, March 1998) that will support specific activities of the Department of Animal Health and Epizootic Diseases Control (DAH&EDC), and other partners, in the context of the sub-project's approved work programmes.

The long-term staff will comprise one TA who will head the project management unit (PMU) and a locally recruted, professionally qualified accountant. The consultant will also provide short-term experts to support the PMU (from the 28 person month allocation of this contract), after consultation with the Sudanese authorities and with the prior approval of the head of the Delegation of the EC in Khartoum; the consutlant's headquarters' staff will also undertake backstopping missions (up to 30 days over the contract period). The consultant will support his staff while they are in Khartoum. during their field visits in Sudan and while they are on mission in Sudan or elsewhere; their operating costs will be met from the budget lines of the consultant contract (Annex E - Price breakdown).

The project will be implemented on the basis of work programmes and cost estimates, which will be developed by the head of the PMU, in close consultation with the national PACE co-ordinator, the Sudanese authorities and the Rinderpest Eradication Co-ordination Group. Each work programme and cost estimate will be approved by the head of the Delegation of the EC in Sudan and the contract supervisor (the PACE Programme Co-ordinator). The PACE Programme Co-ordination Unit (PCU) in Nairobi will consolidate each work programme with those of other national PACE projects, before submitting them for authorization by the RAO and endorsement by the Lead Delegation of the EC in Kenya. The RAO will prepare an Administrative Order related to the approved work programme; the contractor will sign the administrative order agreeing to implement the work programme; and, the head of the Delegation of the EC in Sudan will endorse the order.

The operational costs of the sub-project in the northern sector of Sudan will be met from a provision in the consultant contract (see Annex E - Price breakdown). Any

amount advanced to meet these operational costs will have to be covered by a separate bank guarantee. The consultant will only be authorized to incur expenditure on operational costs within the limits of the provisions of the project's approved annual work programmes and cost estimates (AWP&CEs).

Using the provisions of appropriate budget lines, the consultant will procure essential equipment, materials and reagents in accordance with EDF procedures; the PMU will meet the sub-project's running costs from the provisions of approved work programmes.

OAU/IBAR will issue an international tender for the purchase of vehicles required by the DAH&EDC.

The scope of the activities that the PMU will support is outlined in the Global plan for the project, to which the consultant will refer in the preparation of each work programme.

Government-funded activities will complement the project's activities.

6.3 SHORT-TERM EXPERTS

The need for short-term experts will be identified by the National PACE Co-ordinator, in close consultation with the PACE Programme Co-ordinator. The PACE Programme Co-ordinator will prepare the terms of reference for each expert in consultation with the Contractor.

The Contractor will present the CVs of three candidates to the PACE Programme Co-ordinator, based on suggestions from the Contractor, the Contracting Authority or Delegations of the EC.

The Contractor will hire the selected short-term experts directly, subject to the prior written authorization of the Contracting Authority and the endorsement of the Delegation of the EC in Kenya. The unit rates provided in this contract will be applicable to these short-term experts, who will report directly to the National PACE Co-ordinator and through him to the PACE Programme Co-ordinator.

6.4 REPORTING

The PACE Regional Co-ordination Units in Nairobi and Bamako will co-ordinate the activities of the long-term and short-term TAs and staff of the PACE Common Services and Co-ordination Units will closely monitor their performance.

The consultant will produce a six-monthly report and an annual report on the activities of the performance of this contract. They will consist of an appreciation of all the activities relevant to this contract for the previous year, a description of achievements, problems arising, an appreciation of the previous planning and implementation process. Their format will allow the Supervisor to monitor the performance of the contract.

These reports will be communicated to the Supervisor in appropriate electronic (soft, or digital) versions together with four bound, and one original loose leaf, paper (hard copy) versions; One copy will be provided to the Delegation of the EC in Kenya, and

one copy to the delegations of the EC where experts have been active during the reporting period.

Long term TA may be requested to produce regular reports in their countries of assignment. The nature, frequency and distribution of these reports will be the object of a Service Order from the Supervisor.

Each short-term technical assistant mission will also be the object of a specific report. The specific terms of reference will indicate their nature and distribution.

7. PROCUREMENT OF EQUIPMENT

In the case of equipment for the use of individual long-term TAs, the consultant will purchase vehicles, computers, accessories and materials suited to the tasks to be performed and will receive fixed payments under "vehicle running costs" and "office costs". These goods will remain the property of the consultant. The national PACE projects will not supply these items to TAs, nor provide for their running costs.

In the case of the 'fight against lineage 1' projects, other goods procured under the terms of this contract will remain property of the Contracting Authority. However, during the course of the performance of this contract the goods procured will be utilized for the strict purpose of the performance of the financing agreement. Procurement shall be carried out according to a schedule to be agreed on between the technical assistant, the OAU/IBAR and the EC. and the EDF procurement procedures will be followed.

ANNEX 5

5.2 TECHNICAL ASSISTANCE FOR THE PROJECT MANAGEMENT UNIT IN SUDAN

TERMS OF REFERENCE: TA FOR THE PROJECT MANAGEMENT UNIT IN SUDAN

1. Duty station

The consultant's staff will be based at the National PACE Co-ordination Unit, located in the Department of Animal Health & Epizootic Disease Control (AH&EDC) in Khartoum.

The staff will establish and maintain a Project Management Unit (PMU) as defined in the EC's *"Practical Guide for Decentralized Project Management"* (Brussels, March 1998). They will comprise long-term and short-term staff. The long-term staff will include the head of the PMU and a locally recruited, qualified accountant. The consultant will provide short-term experts to support the PMU, as necessary.

2. Duties of the Head of the PMU

2.1 *Management*

The TA appointed to head the Project Management Unit (PMU) will have an advisory role to the project. S/he will assist the National PACE Co-ordinator in the planning, management and implementation of the project as defined in the Global Plan, and will advise the PACE Programme Co-ordinator on the project's progress.

S/he will manage the PMU and all EDF funds allocated for the project in full compliance with EDF procedures, and will account to the PACE Financial Controller for all expenditure in a timely manner. The PMU Accountant will assist her/him.

S/he will develop and apply an appropriate management system[3], including monitoring and reporting (to national authorities, the project and OAU/IBAR). The result areas as defined in the project's Global Plan and the activities specified in the approved work programmes will determine the day to day duties of the TA who will work in synergy with the national PACE co-ordinator.

2.2 *Preparation of annual work programmes and cost estimates*

The project's annual work programmes and cost estimates (AWP&CEs) will be developed by the head of the PMU in close consultation with the national PACE co-ordinator, the Sudanese authorities and the Rinderpest Eradication Co-ordination Group.

The TA will assist with team meetings to prepare AWP&CEs using the PACE programme's standard formats. S/he will ensure that the standard PACE formats and guidelines related to planning, implementation, monitoring are followed correctly.

2.3 *Expenditure, accounting and financial analysis*

Expenditure will be incurred in Sudan and abroad. The TA will manage the project's bank account(s) and will make all necessary payments to the staff and contractors engaged by the project, in accordance with EDF procedures and the approved work programmes and cost estimates. All necessary payments will be made in the appropriate currencies, in a timely manner and in accordance with the approved work programme. The consultant will make payments in foreign currency, as necessary.

The TA will analyze expenditure and will ensure that it is within the limits of and in

[3] The PACE Programme Co-ordination Unit will provide guidelines for project management

accordance with the approved budget. S/he will use the PACE Programme's standard reporting formats to produce quarterly financing reports to summarize the project's financial status.

S/he will facilitate the internal audits that the PACE Financial Controller may conduct from time to time and external audits that may be conducted.

A locally recruited Accountant will report directly to the head of the PMU and will fulfil the duties assigned to her/him by the consultant and the TA.

2.4 *Establishment of contracts for services and supplies in accordance with the EOF procedures*

On behalf of the national PACE Co-ordinator and in close collaboration with the PACE Programme Co-ordination Unit and the Common Services Units, the TA will assist the identification of suitable contractors, support the project in preparing various administrative documents such as invitations to tender for purchasing materials and will oversee the management of all such contracts that are concluded in the framework of the project.

2.5 *Support for field operations*

The TA will visit to field-based teams, operational areas and laboratories to assess their needs and monitor their performance.

S/he will make appropriate recommendations to overcome the identified constraints and assist in their implementation.

S/he will provide immediate advice and field level assistance in the implementation and monitoring of contracts, participate in PACE Regional co-ordination meetings and other PACE meetings and workshops, subject to the prior approval of the PACE Programme Co-ordinator.

2.6 *Technical duties*

The TA will undertake technical duties assigned to him/her in accordance with the approved work programmes, and the decisions of the Rinderpest Eradication Co-ordination Group. S/he will assist in the monitoring of the project's implementation and in the preparation of technical documents, in close collaboration with the PACE Common Services Units.

2.7 *Liaison and reporting*

The TA will report to the National Authorizing Officer (NAO) and the Head of the Delegation of the European Commission in Sudan on the financial progress of the project. S/he will present these together with brief technical reports on the project's technical status. All reports will be copied to the PACE Programme Co-ordinator and the Lead Delegation of the European Commission in Kenya.

S/he will participate in the meetings of the Rinderpest Eradication Co-ordination Group, of which the NAO will be a member, and will present brief updates on the project's financial and administrative status. S/he will participate in PACE meetings in the region, as requested by the PACE Programme Co-ordinator.

S/he will assist the collation of accurate and appropriate information required by the National PACE Co-ordinator and will ensure that quarterly, annual, mission and other reports are presented in the PACE Programme's approved format to the PACE Programme Co-ordinator and the Lead Delegation of the EC in Kenya. These will

provide the basis for the continued release of project funds and, consequently, for continued project implementation.

3. Qualities and qualifications

(a) *The long-term Technical Assistant* (TA) will:

3.3.1 be a graduate in veterinary medicine from a recognized university or in another relevant discipline, also from a recognized university;

3.3.2 have extensive experience of the management of development projects;

3.3.3 have a minimum of 15 years experience, of which a minimum of 7 years experience will have been either in sub-Saharan Africa, or a combined experience of at least 8 years in sub-Saharan Africa and countries in northern Africa and/or the Middle East;

3.3.4 have proven extensive experience of the management of projects, including participatory planning (based on project cycle management), implementation, monitoring and reporting;

3.3.5 have proven experience of financial management, using EDF procedures - including budgeting, accounting and reporting;

3.3.6 preferably have experience of the control of epizootics and the OIE pathway for the declaration of freedom from rinderpest, and livestock development in pastoral and remote or insecure areas;

3.3.7 be computer literate (word processing, spreadsheets and internet usage) and will preferably have experience of computerized office systems;

3.3.8 have a good understanding of data management; and,

3.3.9 be fluent in English: knowledge of Arabic and French would be a distinct advantage.

(b) *Accountant*

A professionally qualified, suitably experienced Accountant will be employed by the consultant and will be locally recruited.