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October 26, 2005

Your reference

Our reference
Sudan/WP&CE/3

Dear Sir,

RE: WP&CE FOR SUDAN – YEAR 2 OF PERIOD NOVEMBER 01 2004 TO OCTOBER 31 2006

Forwarded herewith please find the PACE Sudan WP/CE for the period November 01, 2005 till October 31, 2006 (i.e. Yr 2 of Extension Phase).
This WP/CE conforms to the „PACE Technical and Budgetary Framework Document – Year 2 Extension" of September 2005.
Kindly acknowledge receipt of this document.
With kind regards

Francis N. Chabari
GTZ-IS
PACE TA Support Programme

Cc: Rural Development Advisor
EU Lead Delegation
Nairobi

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

WORK PROGRAMME

Period: 1st November 2004 – 31st October 2006

European Development Fund project number REG/5007/005
EDF VII & VIII

Financing agreement number 6125/REG
8ACP TPS – 32/40

Updated in October 2005

ACRONYMS

ACORD	Agency for Co-operation and Research in Development
ADRA	Adventist Development and Relief Agency
ADS	Area Development Scheme
AH&EDC	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 Animal Health 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
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.
OIE	Office International des Epizooties
OLS	Operation Lifeline Sudan
OXFAM-GB	Oxfam Great Britain
PACE	Pan African programme for the Control of Epizootics
PARC	Pan African Rinderpest Campaign
PCU	Programme Co-ordination Unit
PDS	Participatory Disease Search
PI	Performance Indicator
PID	PACE Integrated Data base

PPR	Pest des Petits Ruminants
RADCP	Regional Animal Diseases Control Project
RADISCON	Regional Animal Disease Surveillance and Control Network
RCOs	Regional Coordinator Offices
RVF	Rift Valley Fever
SC-UK	Save the Children – United Kingdom
SFIA	Senior Field Investigation Advisor
SPLM	Sudan People's 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-S	Veterinaires sans Frontieres Switzerland
VSF-G	Veterinaires sans Frontieres Germany

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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 Sudan has the **overall objective** of reducing poverty of those involved in livestock farming by improving animal productivity, trade and food security.

The **project purpose** is:

1. Strengthening the capacity at national level to assess the technical and economical aspects of animal diseases and to generate appropriate programmes for their control;
2. Safeguarding of animal health in the country against major epizootics.

The **specific objectives** at national level were reduced to the following two:

- The eradication of rinderpest and the control of other epizootics;
- The strengthening of surveillance to support policy formulation for the control of major epizootics and better access to global livestock markets.

The "Fight against lineage 1 rinderpest virus" project for Sudan has been successfully implemented in two components. The northern sub-project started in February 2003 and the southern sub-project in November 2001. Much has been achieved so far towards the eradication of rinderpest from what is thought to be the last remaining foci of lineage one rinderpest virus. Nevertheless, due to the late start of the programme in Sudan, both sub-projects were granted another two years of implementation for Sudan to be recognised by OIE as free from rinderpest disease in May 2006, whilst the recognition of freedom from rinderpest infection can be achieved earliest in May 2008, provided that no rinderpest disease or virus will be detected.

Building upon the achievements made since the start of the PACE programme, the PACE Sudan project will focus during the extension phase on the following main outputs. These are:

RESULT 1: Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 and is on schedule for recognition of freedom from infection on a country-wide basis in 2008

RESULT 2: The epidemio-surveillance system (ESS) is strengthened

RESULT 3: The control of CBPP and other priority diseases is improved throughout the country

RESULT 4: Project is managed efficiently

This document describes the main activities of both, the northern and southern sub-projects planned for the extension period from 1st November 2004 till 31st October 2006 and displays the forecasted implementation cost of both sub-projects.

Annex A contains the detailed work plan and cost estimate of extension year 2 (period: 1st November 2005 to 31st October 2006) of the *PACE Sudan northern component*, and some complementary documentation.
(The *PACE Sudan southern component* has developed a separate WP/CE for extension year 2 which is not displayed in this document.)

The total budget required for the implementation of extension WP/CE year 2 amounts to **€ 1,139,145 (= 100%)** of which **€ 666,667 (= 59%)** - equal to SDD 200,000,000 - will be contributed from the Government of Sudan, and **€ 472,478 (= 41%)** will be paid from the EDF. The **31st July 2006** will be the last day of disbursement of EDF funds.

2. BACKGROUND

2.1 Government Policy

Sudan is the largest country in Africa, covering an area of about 2.5 million square kilometres. 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 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 (2003) to be as follows: Cattle: 38 million head, Sheep: 47 million head, Goats: 39 million head, Camel: 3 million head and considerable number of Equines which is roughly estimated to be 3-4 million head. Most of these animals are kept under transhumant 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.

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 Sudan keep livestock and utilize livestock products, therefore, all will be the beneficiaries of this project through reduced livestock morbidity and mortality. However, the agro-pastoralist communities, keeping large herds of cattle and small ruminants will receive greater benefit than their sedentary agriculturalist neighbours.

Other beneficiaries are veterinarians at both federal and state level that will have improved facilities and working conditions. 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 Government of Sudan's AH&EDC co-ordinates activities with the SPLM SAAR and both work closely with FAO, NGOs and private animal health service providers.

In the northern sector, the sub-project will be implemented by the AH&EDC and a project management unit (PMU) staffed by a technical assistant recruited by GTZ through a consultant contract. In the southern sector, VSF-Belgium working closely with SAAR and the OLS livestock programme will co-ordinate activities. The PMU and the NGO project manager will report to the PACE Programme Co-ordination Unit at AU/IBAR, Nairobi, which will provide regular advice to this project, make field visits, and participate in 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.

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.

The cattle populations in the border areas of Sudan move across international borders for pasture and trade. Elimination of rinderpest infection from Sudan is therefore crucial for rinderpest eradication from the east and central Africa regions. This project aims to concentrate active surveillance activities in the surveillance zone of southern Sudan in order to eliminate any 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 be promoted; and, as a combined effect of these measures, the basis will be provided for sustainable animal disease control, improved control of CBPP and 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 (FMOAR) 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, the Department of Animal Health and Epizootic Diseases Control (AH&EDC) 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 FMoS&T, which is concerned with animal disease diagnosis, and research into specific animal diseases. The ARRC includes the Central Veterinary Research Laboratories (CVRL dealing with animal health research and vaccine production), animal production research centre, 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 the 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.

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 infrastructure 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 transportation facilities and equipment including 62 Trucks, 2 fuel tankers, 19 Land Rover station wagons and a minibus, vaccination, camping, cold chain, mobile crushes, and veterinary equipment for 62 mobile teams, 72 mobile radio communication sets installed in vehicles and 10 fixed radio stations at the co-ordination offices at Khartoum and other big towns, information unit equipped with adequate number of computers and relevant software.

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 along the whole country run annually. In addition, to provide resources to contain all disease outbreaks reported to the coordination 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.

In 1993, PARC recommended the use of a new heat stable rinderpest vaccine, which 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 infrastructure 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 included 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 SPLM 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

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 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. 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 (fourteen[1] NGOs facilitating CAHS in southern sector areas and five[2] in northern sector areas) covering approximately 80% of southern Sudan. Approximately two 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

[1] ACORD, ADRA, CARE, COOPI, DOT, NCDS, NPA, Oxfam-GB, SCF-UK, VSF-Belgium, VSF-Germany, VSF-Switzerland, VETWORK Services Trust, World Relief

[2] Oxfam –GB, Accomplish, GAA, NICODO, Vet serve

technical support to the NGOs, including vaccines and vaccination equipment. From 1993, more than 7.5 million cattle were vaccinated against rinderpest, an average of more than 1 million vaccinations per year.

The first phase of the PACE AU-IBAR-funded "Fight Against Lineage One Rinderpest Virus" Project for Sudan has been implemented in two components with the following expected outputs:

1. The necessary capacities of veterinary services and project management are established and the range of skills for the national epidemio-surveillance network is broadened and strengthened on a sustainable basis.
2. Community-based systems for effectively coordinated delivery of preventive and curative veterinary services and medicines are functional.
3. Sudan is internationally recognized to be free of rinderpest disease in 2005.
4. A strong basis for the development of appropriate strategies for the control of priority epizootic diseases is in place.

The northern sub-project started in February 2003 and the southern sub-project in November 2001. Much has been achieved so far towards the eradication of rinderpest from what is thought to be the last remaining foci of lineage one rinderpest virus. Surveillance systems have been established that incorporate passive reporting, outbreak investigation and active surveillance, especially use of participatory disease search (PDS) methods. So far no rinderpest disease or virus has been detected.

Sudan declared provisional freedom from rinderpest disease on a zonal basis in 1996 for the northern part of the country. A second declaration was made in 2001 which enlarged the provisionally free zone to include north, central and part of the south, and created an infected zone in the southeast surrounded by a surveillance zone. In 2003 a third declaration was made which changed the infected zone to become part of the surveillance zone (see map Annex 1). Sudan is in the process of preparing an application to OIE for recognition of freedom from rinderpest disease on a zonal basis for the north, central and part of south. It is hoped that this will be ratified by the general assembly of OIE in May 2005.

This project extension aims to build on the huge advances made since 2001, e.g. strengthening of the epidemio-surveillance system through capacity building at central and field level, establishment of PDS expert teams, improvement of disease reporting, introduction of PACE Integrated Database (PID) and others, to allow Sudan to progress further along the OIE pathway towards final eradication of rinderpest. It is anticipated that Sudan will be recognised as free from rinderpest disease in May 2006, and that a considerable amount of active surveillance, especially sero-surveillance and purposive disease searches, will have been completed by October 2006 that will contribute to an application for recognition of freedom from infection to be submitted to OIE in 2007.

The extension also comes when a comprehensive peace agreement is likely to be signed in the near future and therefore provides an opportunity to facilitate the reintegration and harmonisation of epidemio-surveillance systems and animal health delivery services in northern and southern regions, drawing on the various experiences gained with appropriate service delivery methods.

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 Intensified Livestock Vaccination Programme implemented by GoS, 2004 – 2007

ii Strengthening Community-based Animal Health Services Delivery System, in collaboration with CAPE, 2004

iii Trans-boundary Animal Diseases Surveillance and Control – Technical Cooperation Project (TCP) with Arab Organization for Agricultural Development addressing FMD, RVF and Brucellosis, 2004 – 2005.

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

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

vi FAO Technical Cooperation Project (TCP) for CBPP 2004 – 2005

vii FAO Emergency Livestock Programme, started in 2000

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

ix 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.

x Small Ruminants Animal Health and Marketing Research – IFAD, 2004

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

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

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

xiv 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.

xv 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.

2.6 Documentation available

The key documents that describe the background of the "Fight against lineage 1 rinderpest virus" project include:

(1) PARC phase II proposal.
(2) RDP report on a workshop on disease control (1997)
(3) Sudan Comprehensive Strategy.
(4) Regional Animal Disease Control Project Document.
(5) FMOAR Annual reports.
(6) UNICEF-OLS review of "Rinderpest prevention and surveillance within the frame of household food security programme in south Sudan" (March 2001).
(7) RDP Livestock Services "Draft Report of the consultancy to assist in the development of a rinderpest eradication strategy in the West and East Nile ecosystems" J C Mariner, April 2001.
(8) "Fight against lineage 1 rinderpest virus" project – northern and southern sub-project reports

The list of legislation regulating the livestock management and veterinary products include:

- The Pharmaceuticals and poisons acts (2001)
- Livestock export and import law (1913) updated in (1999)
- Meat inspection and hygiene act (1974) updated in (1999)
- Animal production act (1998) (proposal)
- The animal diseases act (2001)
- The diseases free zone law (1993)
- The livestock route and veterinary control stations law (1993)

3. INTERVENTION

3.1 Overall Objective

In common with the global framework of the AU-IBAR PACE Programme, the "Fight against lineage 1 rinderpest virus" project has the overall objective to combat poverty among those involved in livestock farming by improving productivity. The achievement of the specific objectives below will contribute to this overall objective.

3.2 Specific Objectives

Similarly the specific objectives of this project are the same as those of the PACE Programme. The project aims to:

- strengthen the capacity at national and regional levels to assess the technical and economic aspects of animal diseases and generate appropriate programmes for their control, and
- safeguard animal health in Africa against major epizootic diseases (OIE list A).

3.3 Results

The following results will contribute to the specific objectives above.

Result 1. **Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 and is on schedule for recognition by OIE of freedom from infection on a country-wide basis in 2008**

Result 2. **The epidemio-surveillance system (ESS) is strengthened**

Result 3. **The control of CBPP and other priority diseases is improved throughout the country**

Result 4. **Project is managed efficiently**

3.4 Main Activities of the Project

The following activities will achieve the results listed above.

3.4.1 Result 1: Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 and is on schedule for recognition by OIE of freedom from infection on a country-wide basis in 2008

3.4.1.1 Make self-declaration of country-wide provisional freedom from rinderpest disease by December 2004.

Sudan declared provisional freedom from rinderpest for zone A (north, central and part of south) in August 2003 (Annex 1). The Federal Ministry of Animal Resources and Fisheries (FMAR&F) will write a letter to OIE copied to IBAR declaring country-wide provisional freedom from rinderpest. This letter will be sent as soon as Kenya declares its northern region neighbouring Sudan provisionally free of rinderpest. It is assumed that they will do this before December 2004.

3.4.1.2 Apply for country-wide freedom from rinderpest disease by September 2005

FMAR&F plans to present an application to OIE for freedom from rinderpest disease on a zonal basis (north, central and part of south) in September 2004. If accepted then Sudan will be recognized as free of disease on a zonal basis in May 2005.

A task force will be formed with the objective of preparing the dossier to apply to OIE for country-wide freedom from rinderpest disease in September 2005. If accepted by OIE this application should be passed by the OIE in May 2006. The task force will collate data from the northern and southern regions of Sudan. The draft dossier will be submitted to PACE for discussion and advice before finalization.

3.4.1.3 Investigate stomatitis-enteritis reports whenever they occur

The reporting of stomatitis-enteritis reports will be promoted and all reports will be investigated through field and laboratory investigation to obtain a conclusive diagnosis wherever possible.

3.4.1.4 Carry out active rinderpest surveillance.

3.4.1.4.1 Conduct participatory disease searches in high risk areas

Areas of high rinderpest risk will be identified and participatory disease searches (PDS) carried out. The number of disease searches depends on the number of high risk areas identified through earlier active and passive surveillance. However it is envisaged that at least one PDS mission will be carried out per State in zones A3 and B, a total of 17. PDS will be carried out by teams of specifically trained veterinarians in collaboration with local personnel.

3.4.1.4.2 Conduct random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2005

A plan for the first random sample sero-surveillance exercise has already been drafted in collaboration with PACE Epidemiology Unit. 314 herds will be sampled from zone A. The number of herds to be sampled per state will be allocated in proportion to the estimated cattle population. A sampling frame will be prepared with advice from PACE Epidemiology Unit. 15 animals with 1 pair of permanent incisors will be sampled from each herd (or less if there are less than 15 in the herd). Sero-surveillance teams led by veterinarians will be trained in herd and animal selection, ageing, sample collection and handling, recording and identification of sampled animals. Sampling equipment, cold chain and transport will be provided. Samples will be tested by cELISA at FMOR&F and MS&T. To ensure quality control, duplicates of 10% sera will be sent to Pirbright as well as duplicates of any samples that are found to be antibody positive.

3.4.1.4.3 Conduct random sample sero-surveillance in zones A3 and B to be completed by June 2006

A second random sample sero-surveillance exercise will be carried out between June 2005 and June 2006 in zones A3 and B. 314 herds of up to 15 animals (1 pair of permanent incisors) will be sampled per herd. Sero-surveillance teams will be refresher trained and the same procedures will be followed as in 1.4.2. In order to fulfill requirements for application for freedom from infection, zone B will require a second sero-surveillance exercise in 2006-2007.

3.4.1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations

A plan for purposive sero-surveillance will be prepared in consultation with PACE targeting cattle in contact with wildlife concentrations in Pibor (southeast), Radom (west) and Dindir (central).

3.4.1.5 Maintain rinderpest outbreak emergency preparedness contingency plan and supplies. Receive regular updates of developments in the Somali ecosystem and respond accordingly.

The rinderpest outbreak contingency plan will be updated to reflect the administration structures put in place after the peace agreement. A national emergency committee will be appointed at both central and state levels. The project will maintain contingency stocks of vaccine and equipment, and provide training and logistic support. In the event of a rinderpest outbreak the project will facilitate the emergency response, including rapid diagnosis in the national laboratory as well as confirmation in an international reference laboratory.

The project will receive regular updates from PACE Epidemiology Unit of developments in the Somali ecosystem and other neighbouring countries. If necessary surveillance will be intensified in areas that are considering to be at risk.

3.4.2 Result 2: The epidemio-surveillance system (ESS) is strengthened

3.4.2.1 Support passive surveillance, in particular monthly general disease reporting

Monthly general disease reporting from state to central level will be supported through training workshops and improved communication systems. Incentive payments for accurate and timely reporting introduced during the previous work plan will continue.

3.4.2.2 Introduce Animal Resources Information System (ARIS) country-wide and provide reports regularly to IBAR and OIE

During the two-year extension ARIS will be introduced to all states to be used for disease reporting and management of other livestock data. Computers will be purchased for states that do not yet have them. Trained personnel will be supported through follow up visits by epidemiology personnel. Reports for IBAR and OIE will be prepared and submitted according to their requirements.

3.4.2.3 Prepare budget for maintenance of epidemio-surveillance system and lobby government to allocate funds

A budget will be prepared to cover all costs of maintaining the epidemio-surveillance system. Meetings and workshops will be facilitated to sensitize decision-makers on livestock policies and priorities, especially support to the epidemio-surveillance system.

3.4.2.4 Train veterinarians, auxiliaries (including CAHWs) on relevant subjects to maintain ESS

Training will be organized for veterinarians at field and central level in epidemio-surveillance, use of ARIS, rinderpest diagnosis and surveillance, participatory epidemiology and PDS and other related topics as appropriate to support the activities in this project.

The project will support the activities of the Community Animal Health (CAH) Unit at the Animal Health and Epizootic Disease Control Department of the FMAR&F. The support will focus on preparation of legislation for regulation of CAHWs, linkages between CAHWs and government veterinary services and standardization and quality control of training.

In the southern region where currently there is a shortage of veterinarians, the project will encourage and support veterinarians to return to the region to work in both public and private sector in order to fill gaps in animal health service delivery. Furthermore, the project will monitor the existing capacity of community-based animal health services and identify the need for new CAHWs and supervisors. Support will be provided for basic and refresher

training of CAHWs and training of veterinary auxiliaries. This includes training in rinderpest surveillance, outbreak reporting, investigation and sampling and emergency outbreak response to allow them to support the field veterinarians in the activities of this project.

3.4.2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services

The project will collaborate with other partner organisations to conduct livestock co-ordination meetings in Khartoum attended by field veterinarians and personnel from FMAR&F and other partners. The objectives of the meetings are to review achievements, share information, plan future activities and promote common understanding. The project will also facilitate regional livestock co-ordination meetings attended by veterinarians from government and NGOs, private service providers, community leaders, CAHWs and livestock keepers. The project will assist in the formation of regional co-ordination committees that will follow up on the recommendations of the regional co-ordination meetings.

One recommendation of the 8th North/South Livestock Co-ordination Meeting held in Khartoum 13th to 17th June 2004 was that after the signing of the comprehensive peace agreement a workshop would be organised bringing together government veterinary services from north and south, PACE, FAO and livestock NGOs, private service providers and other key stakeholders to review achievements, share experiences and agree on policies and priorities for the future. The project will collaborate with other partners to support this workshop.

The project will prepare a quarterly newsletter highlighting recent developments and achievements in disease control and project activities. These will be distributed to key stakeholders and PACE co-ordination offices at state level.

The project will obtain, develop and distribute suitable materials for raising community awareness on different aspects of rinderpest eradication and surveillance. Project vets will organise community meetings in key areas to raise awareness, or provide support to other partners to facilitate community meetings.

3.4.2.6 Provide resources to support ESS

The project will contribute to the efficient functioning of the epidemio-surveillance system by strategic inputs to improve monitoring, coverage and communication, e.g. provision of GPS units, telephone communication, transportation, equipment and support to field missions. The project will contribute to the rehabilitation of offices and communication systems in the southern region.

3.4.2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories

The project will contribute to the improvement of diagnostic capacity at central level and will support the rinderpest ELISA laboratory. In addition the project will support regional laboratories with consumables and reagents for routine diagnosis of common diseases. The project will support the forwarding of samples to international reference laboratories when necessary. Sampling equipment and rinderpest pen side test kits will be provided to field investigation teams. Relevant training will be carried out for laboratory staff.

To serve the southern region the basic laboratory facility in Lokichokio will be maintained until laboratories have been re-established within the south. Gaps in cold chain in key areas

will be identified and the necessary cold chain equipment will be supplied to support collection of rinderpest and other samples.

3.4.2.8 Co-ordinate with neighbouring countries on surveillance and trans-boundary disease control through border harmonization meetings and PACE co-ordination meetings

Bearing in mind the movement of pastoralist groups across the borders between Sudan and its neighbours, all rinderpest eradication activities will be co-ordinated with neighbouring countries through border harmonization meetings and PACE co-ordination meetings. These will provide opportunities for information sharing, co-ordination of strategic and operational planning and will promote the optimal use of resources and complementary implementation of activities.

3.4.3 Result 3: Control of CBPP and other priority diseases is improved throughout the country

3.4.3.1 Develop and implement a control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE

This project will cooperate with and support the implementation of Sudan's FAO TCP that is jointly implemented by AH&EDC department and the Central Veterinary Research Laboratory on CBPP control, focusing on production of good quality vaccines and diagnostic capacity.

Strategies for CBPP control have already been developed for northern and southern regions. These strategies will be integrated and updated in line with current thinking on CBPP control. Epidemiological information on the dynamics and impact of CBPP will continue to be collected through general disease reporting, outbreak reports and investigations and participatory disease searching with follow up field and laboratory investigations. Appropriate training modules will be developed for different levels of personnel on the CBPP control strategy.

The necessary supplies to support the implementation of the CBPP control strategy in southern region will be identified and procured e.g. vaccines, cold chain and medicines.

3.4.3.2. Develop strategies to control identified priority diseases

The project will facilitate the development of strategies for the control of other identified priority diseases, like FMD, PPR, ECF and other tick-borne diseases, to be implemented by the Federal Ministry of Animal Resources & Fisheries.

3.4.4 Result 4: Project is managed efficiently

3.4.4.1 Integrate project management structures to implement ESS and emergency preparedness in a sustainable way.

The project will maintain adequate capacity for effective project management and implementation. The project will contribute personnel, resources and running costs to the project support unit in Khartoum, which will provide accounting, procurement and logistical support to overall project implementation. For the southern region, until the situation has normalised after the signing of the peace agreement, VSF-Belgium will maintain a co-ordination office in Lokichokio and a management unit in Nairobi which will play a similar role. Once the peace agreement has been signed the two sub-projects will develop a strategy for integration and co-ordination of project implementation.

4. ASSUMPTIONS

4.1 Assumptions to the specific objectives

In order for activities to be harmonized nationally the Sudan peace agreement needs to be signed in 2004. If the Peace agreement is not signed in a timely way, many of the results will be achieved but may not be harmonized at national level. Even if peace is signed, areas of local conflict are likely to continue. Some activities may be delayed if there is restricted access to key areas.

4.2 Assumptions from results to the specific objectives

For the results to contribute to the specific objectives it is assumed that:

- Kenya makes a self-declaration of provisional freedom on a zonal basis before December 2004. In order for Sudan to progress along the OIE pathway, Kenya has to make a self-declaration to OIE of zonal provisional freedom for the region that neighbours Sudan. Kenya plans to do this in 2004.
- No rinderpest outbreak is confirmed and no virus is detected. The timeframe for applications to OIE for freedom from disease assume that no rinderpest outbreak is confirmed or rinderpest virus detected during passive and active surveillance activities. If rinderpest virus is found then the activities and timeframe will need to be adjusted in consultation with PACE.
- The Government of Sudan will make its agreed contribution to the funding of this project. In addition, this project complements and co-ordinates with an FAO TCP for CBPP control – it is assumed that this TCP will progress on schedule.
- The current modality of funding via GTZ and VSF-Belgium will continue to prevent any interruption in activities and delays in progression towards rinderpest eradication.

5. IMPLEMENTATION

5.1 Physical and non-physical means

The extension phase of "Fight against lineage 1rinderpest virus" will be implemented as two sub-projects that will be co-ordinated by AU/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.

5.1.1 Northern sector

In the northern sector, a consultant will provide technical assistance to establish and manage the 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.

5.1.2 Southern sector

In the southern sector, AU/IBAR will engage VSF-Belgium, an international NGO to co-ordinate the sub-project's implementation. The NGO will work within the framework of the FAO-co-ordinated OLS southern sector livestock programme. The NGO will purchase necessary equipment and materials, provide training to animal health workers, conduct surveillance of rinderpest, and support control of contagious bovine pleuropneumonia (CBPP).

5.1.3 Technical standards

The project will adopt guidelines on rinderpest surveillance and control 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.

5.2 Organization and Implementation Procedures

5.2.1 Co-ordination

Through the PACE Programme Co-ordination Unit in Nairobi, AU/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 AU/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.

A task force for rinderpest eradication will be formed with representatives from AU/IBAR-PACE, the Government of Sudan, SPLM SAAR, the Technical Advisor, VSF-Belgium and FAO-OLS to monitor progress, review strategy, and harmonize activities. This task force will meet three to four times per year.

5.2.2 Northern sector

A technical assistant will be provided through a technical assistance contract to head a project management unit (PMU) and s/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.

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.

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 Research 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.

5.2.3 Southern sector

The Regional Authorizing Officer will engage VSF-Belgium in a grant agreement contract to lead and co-ordinate the project's activities in the southern sector. The project administration and procurement will be based in Nairobi while the base for co-ordinating implementation and forward logistics would be in Lokichoggio.

The NGO will recruit specialist personnel including a veterinarian who will specialize in epidemiology and community-based animal health services, and field veterinarians who will focus on training animal health workers and implementing surveillance activities for rinderpest eradication.

The project will be supported by the administration, finance and logistics personnel of VSF-Belgium. Drivers/field assistants will be employed to support the field vets. A laboratory assistant will be employed for the Lokichokio laboratory and CAHWs, supervisors and co-ordinators will be engaged on contract to carry out surveillance activities.

Equipment and materials will be purchased in accordance with EDF procedures. The project will provide equipment to improve the existing cold chain and basic field stores will be constructed. Items to be purchased will include field sampling kits, laboratory equipment and materials, vaccination equipment, training and extension materials, field kits for CAHWs, and office supplies. Thermostable rinderpest vaccine will be purchased to maintain an adequate contingency stock for potential outbreaks. CBPP vaccine will be purchased as required for utilization in disease control plans.

The project will provide for air transport to remote areas and existing field vehicles will be maintained. Mobile radios will be purchased for fieldwork and the project will provide supervisors/coordinators with bicycles. In addition, this project will contribute to the NGO programme support costs of radio communication network, telephone, fax and e mail, security network, emergency evacuation, logistical system, procurement system, stationery and other office costs, and OLS consortium co-ordination.

Provisions are made to meet costs associated with co-ordination meetings, workshops, and local training, laboratory fees, and the transportation of samples.
The project has a contingency fund, which could be mobilized to respond to emergencies and to create flexibility during implementation.

EDF procedures will be followed for the recruitment of technical assistance, and the purchase of vehicles and equipment. Project management will be decentralized but the PACE Programme's administrative and financial procedures will be applied. Annual work programmes will be approved by AU/IBAR and will be implemented on the basis of administrative orders.

5.3 Timetable

If funding is provided in a timely way in November 2004 and project administration is unchanged then activities will be able to start from 1st November (see table 1).

Table 1: Schedule of Implementation

ACTIVITY	Year 1		Year 2	
	11/04 – 4/05	5/05 - 10/05	11/05 – 4/06	5/06 – 10/06
Result 1				
1.1 Make declaration of provisional freedom from rinderpest on country-wide basis by December 2004	X			
1.2 Apply for country-wide freedom from rinderpest disease by September 2005		X		
1.3 Investigate stomatitis-enteritis reports whenever they occur	X	X	X	X
1.4.1 Conduct participatory disease searches in high risk areas	X	X	X	X
1.4.2 Conduct random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2005	X	X		
1.4.3 Conduct random sample sero-surveillance in zones A3 and B to be completed by June 2006		X	X	X
1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations			X	
1.5 Maintain rinderpest outbreak emergency preparedness – contingency plan and supplies. Receive regular updates of developments in the Somali ecosystem and respond accordingly.	X	X	X	X
Result 2				
2.1 Support passive surveillance, in particular monthly general disease reporting	X	X	X	X
2.2 Introduce ARIS country-wide and provide reports regularly to IBAR & OIE	X	X	X	
2.3 Prepare budget for maintenance of epidemio-surveillance system and lobby government to allocate funds.	X		X	
2.4 Train veterinarians, auxiliaries (including CAHWs) on relevant subjects to maintain ESS.	X	X	X	X
2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services	X	X	X	X
2.6 Provide resources to support ESS	X	X	X	X
2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories	X	X	X	
2.8 Co-ordinate with neighboring countries on surveillance & trans-boundary disease control through border harmonization meetings and PACE co-ordination meetings.	X	X	X	X
Result 3				
3.1 Develop and implement a control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE	X	X	X	X
3.2 Develop strategies to control other identified priority diseases (FMD, PPR,ECF and other tick-borne diseases)	X	X	X	X
Result 4				
4.1 Integrate project management structures to implement ESS and emergency preparedness in a sustainable way	X	X	X	

5.4 Costs and Financing Plan

A total EDF budget of 2.8 million EUR is required to fund the described activities. It is assumed that both sub-projects will receive additional funding (from Stabex funds or re-allocated PACE funds) latest in extension year 2.

It is envisaged that the current modality of funding via GTZ and VSF-Belgium will continue to prevent any interruption in activities and delays in progression towards rinderpest eradication. This budget does not include the cost of technical assistance provided via GTZ. The annual budget by result has been divided into northern and southern sector components (see table 2 below).

Table 2: Annual EDF budget estimate (EUR) required for the implementation of PACE Sudan northern & southern sub-projects for two-year extension (estimate from July 2004)

	Year One	Year Two
Result 1: Rinderpest Eradication	480,000 **N 300,000, S 180,000**	455,000 **N 275,000, S 180,000**
Result 2: Epidemio-surveillance system	480,000 **N 285,000, S 195,000**	420,000 **N 225,000, S 195,00**
Result 3: Control of CBPP & other priority diseases	165,000 **N 75,000, S 90,000**	150,000 **N 60,000, S 90,000**
Result 4: Project management	225,000 **N 90,000, S 135,000**	225,000 **N 90,000, S 135,000**
Contingency	100,000 **N 50,000, S 50,000**	100,000 **N 50,000, S 50,000**
Total	1,450,000 N 800,000; S 650,000	1,350,000 N 700,000; S 650,000
Northern component	800,000 + 700,000 = 1,500,000	
Southern component	650,000 + 650,000 = 1,300,000	

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.

In **2004**, the Government commitment amounted to 850,000,000 SDD (= € 2,833,333) of which 455,000,000 SDD (= € 1,516,666) have been received.

In **2005**, the Government plans to contribute 950,000,000 SDD (= € 3,166,666) to the implementation of animal health activities of which about 200,000,000 SDD (= € 666,667) will be provided to the PACE Sudan northern sub-project.

The financial contribution for **2006** is expected to be similar.

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 AU/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.

The project will encourage the Government and SPLM to continue their policies of free market and privatization of services. The process of integration and legitimization of CAHWs within the overall system of animal health service provision will be promoted by the project.

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. Such introduced technologies include thermo-stable rinderpest vaccine, the use of filter papers for serum collection and storage, use of the cow-side rinderpest antigen tests, cold chain equipment

suited to the climatic conditions, including solar- and kerosene-based refrigerators, portable fridges, and cool boxes. With regard to information management, the PACE Data Management Unit will provide training and support to the introduction of PID/ARIS.

6.3 Environmental protection measures

Sudan has three main livestock husbandry systems: settled, transhumant and nomadic pastoralism. Intensive livestock farms are limited to the main towns and suburbs. Sudan is a net livestock exporter, mainly to the Middle East, and the demand for animal products is growing as the human population increases. Hence, the control and eradication of epidemic diseases is regarded as a factor that would improve food security and export potential. This, in turn, will encourage the increased off-take for export and local consumption, which would contribute to relieving the pressure on pasture.

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.

It is considered that the transhumant livestock management system practised in most areas of 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 (EVK). The participation of all members of the community will be encouraged and specific activities will be undertaken to encourage the participation of women in prioritizing local needs, developing solutions, and implementing activities.

Some women have been trained as CAHWs and supervisors and specific activities to meet the priorities of women have been carried out, *e.g.* control of small ruminant and poultry diseases. The project will include the above priorities in its implementation methodology. The project will use community-based animal health workers (CAHWs), some of whom will be women who previously received training in the delivery of veterinary services.

Interethnic conflict, commonly manifested as cattle raiding, is a major problem especially in the south east of southern Sudan, in addition to conflict related to the civil war. Various organizations have facilitated a programme of peace meetings between multiple ethnic groups. The project will liaise with ongoing activities and participate where appropriate. Some of the project's activities could reinforce peace agreements, through collaboration between ethnic groups in the provision of animal health services.

6.5 Institutional and management capacity

The project aims to assist in building capacity at all levels of animal health service provision. There are some 4000 veterinarians in Sudan, about 1250 of whom are enrolled in public veterinary services. Another 750 are in research and training institutes and the remainder are in private business. There are 6000 technicians and auxiliaries.

The project will provide opportunities for trained personnel to acquire experience and develop and improve their skills. No new structures will be established although, to ensure effective project implementation, a project management unit will be required in Khartoum and a project co-ordination office in Lokichokio will be needed to support project activities in the southern sector.

At community level, FAO-OLS and NGOs support community leaders (as members of veterinary co-ordination committees), CAHWs and supervisors. FAO-OLS and NGOs also work in co-ordination with the animal health services and provide technical advice, particularly on facilitation of the community-based approach. The project will co-ordinate its activities, where appropriate, with initiatives to strengthen private veterinarians and pharmacists to establish a privatized system to deliver veterinary services.

6.6 Economic and financial analyses

Through the control of epidemics, the project will assist the FMOAR 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. Project activities will be monitored quantitatively using standard data collection forms used by CAHWs, supervisors, NGOs and FAO. 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.

7.2 Reviews and Evaluations

The project will participate in all planned reviews and evaluations of the AU-IBAR PACE Programme. Project personnel will regularly interact with PACE advisors in the region and facilitate their field visits, allowing frequent evaluation of the project.

: "Fight against lineage 1 rinderpest virus" Project for Sudan: Logical Framework

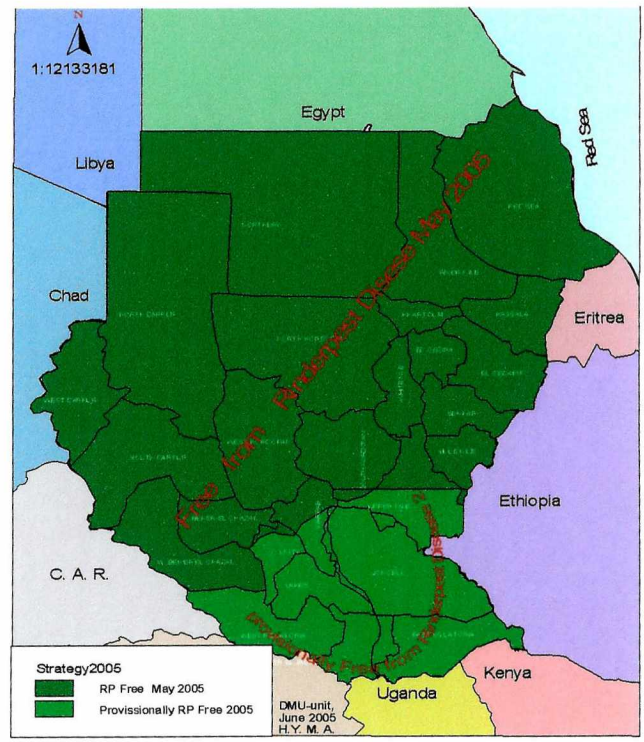
INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTIONS
.L OBJECTIVE: the poverty among those involved ock-farming sector in Africa by ng animal productivity, trade and			
IC OBJECTIVES: thening the capacity at national assess the technical and economic of animal diseases and generate riate programmes for their control uarding of animal health in the / against major epizootic diseases			Sudan Peace Agreement signed in 2004
T 1. is recognized by OIE as free of est disease country-wide in May and is on schedule for recognition by f freedom from infection on a y-wide basis in 2008)	Self-declaration of country-wide provisional freedom by December 2004. OIE accepts application for freedom from disease on zonal basis (zone A) in May 2005 and country-wide in May 2006	OIE website	Kenya declares northern region provisionally free of rinderpest by December 2004 No confirmed outbreak of rinderpest or detection of rinderpest virus
.T 2. idemio-surveillance system (ESS) is thened.	PACE and OIE reporting requirements fulfilled 80% localities report 10/12 months of the year All of states using ARIS by October 2006	IBAR yearbook OIE yearbook and website	Security situation allows access
LT 3. ontrol of CBPP and other priority es is improved throughout the ry.	CBPP strategy document updated Number of vaccinations carried out Epidemiological data analyzed. Control strategies for other identified priority diseases developed.	Strategy document DMEU	Government and other donor contributions availed
LT 4. ct is managed efficiently	Project implemented on schedule and within budget	Project reports Audit reports	Continue with existing funding modalities. Funds for technical assistance provided

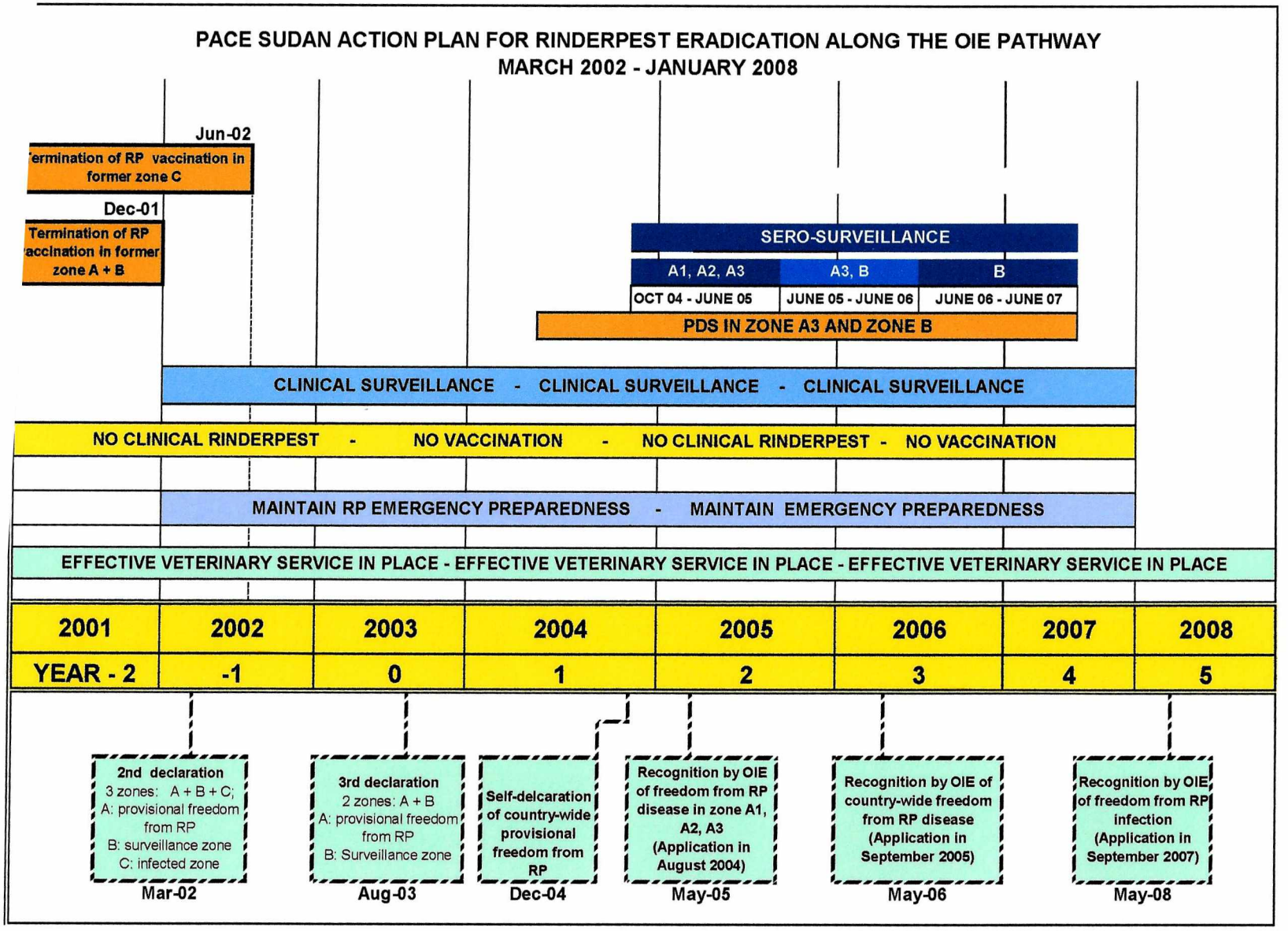
IES	MEANS	COST OF THE PROGRAMME (Euro)	
e declaration of provisional from rinderpest on country-wide December 2004 ly for country-wide freedom from :st disease by September 2005 :stigate stomatitis-enteritis reports er they occur y out active rinderpest surveillance. :: patory disease searches in high risk n sample sero-surveillance in zones and A3 to be completed by June 2005 n sample sero-surveillance in zones A3 o be completed by June 2006 sive sero-surveillance in cattle in with wildlife concentrations intain rinderpest outbreak emergency :dness – contingency plan and supplies. e regular updates of developments in the ecosystem and respond accordingly. ıpport passive surveillance, in ılar monthly general disease ing troduce ARIS country-wide and le reports regularly to IBAR and OIE :epare budget for maintenance of mio-surveillance system and lobby :nment to allocate funds. rain veterinarians, auxiliaries (including Ws) on relevant subjects to maintain ESS.	Travel and transport costs Sampling equipment Laboratory supplies Laboratory fees/shipment costs Testing vaccine viability Communication equipment Computer equipment and maintenance Training in ARIS Training in surveillance – vets, AHAs, CAHWs Community meetings Co-ordination meetings – internal and external Extension materials Newsletter Vehicle maintenance and fuel Cold chain Rehabilitation of laboratories	Year 1 North 800,000 South 650,000 Sub-total 1,450,000 Year 2 North 700,000 South 650,000 Sub-total 1,350,000 Total North 1,500,000 plus TA Total South 1,300,000 Grand Total 2,800,000 plus TA north	Application to OIE for zonal freedom (zone A) from rinderpest disease submitted by September 2004

ıre communication and exchange nation between livestock keepers ernment veterinary services 'ide resources to support ESS rove laboratory diagnostic capacity level and in regional and central ories ordinate with neighbouring es on surveillance and trans- ry disease control through border ization meetings and PACE co- ion meetings. velop & implement a control y for CBPP in agreement with the nendations made by the technical tations of FAO and PACE velop strategies to control identified y diseases (FMD, PPR, ECF and ick-borne diseases) egrate project management ures to implement ESS and ency preparedness in a sustainable	CBPP vaccine Antibiotics Vaccination equipment Training and awareness-raising Project management: Administration, procurement, logistics, accounting, co-ordination, indirect costs Personnel salaries/incentives Office supplies and stationery OIE fees	FAO TCP provides adequate quantity and quality of vaccines and support to laboratory diagnostic capacity. Estimate funds available within PACE = 850,000 north + 500,000 south. Balance required = 650,000 north and 800,000 south = 1,450,000 **PRECONDITIONS** Extension of PACE programme is approved before 31st October 2004

nex 2: Sudan's current zones for rinderpest eradication – updated in September 2005

Sudan: Rinderpest Eradication Strategy 2004




PACE SUDAN ACTION PLAN FOR RINDERPEST ERADICATION ALONG THE OIE PATHWAY
MARCH 2002 - JANUARY 2008
Jun-02
ermination of RP vaccination in former zone C
Dec-01
Termination of RP accination in former zone A + B
SERO-SURVEILLANCE
A1, A2, A3
A3, B
B
OCT 04 - JUNE 05
JUNE 05 - JUNE 06
JUNE 06 - JUNE 07
PDS IN ZONE A3 AND ZONE B
CLINICAL SURVEILLANCE - CLINICAL SURVEILLANCE - CLINICAL SURVEILLANCE
NO CLINICAL RINDERPEST - NO VACCINATION - NO CLINICAL RINDERPEST - NO VACCINATION
MAINTAIN RP EMERGENCY PREPAREDNESS - MAINTAIN EMERGENCY PREPAREDNESS
EFFECTIVE VETERINARY SERVICE IN PLACE - EFFECTIVE VETERINARY SERVICE IN PLACE - EFFECTIVE VETERINARY SERVICE IN PLACE
2001
2002
2003
2004
2005
2006
2007
2008
YEAR - 2
-1
0
1
2
3
4
5
2nd declaration
3 zones: A + B + C;
A: provisional freedom from RP
B: surveillance zone
C: infected zone
Mar-02
3rd declaration
2 zones: A + B
A: provisional freedom from RP
B: Surveillance zone
Aug-03
Self-delcaration of country-wide provisional freedom from RP
Dec-04
Recognition by OIE of freedom from RP disease in zone A1, A2, A3 (Application in August 2004)
May-05
Recognition by OIE of country-wide freedom from RP disease (Application in September 2005)
May-06
Recognition by OIE of freedom from RP infection (Application in September 2007)
May-08

ANNEX A: PACE SUDAN NORTHERN SUB-PROJECT

(AU/IBAR)

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

"FIGHT AGAINST LINEAGE 1 RINDERPEST VIRUS" PROJECT

SUDAN

NORTHERN SECTOR SUB-PROJECT

WORK PLAN & COST ESTIMATE

Period: 1st November 2005 – 31st October 2006

European Development Fund project number REG/5007/005
EDF VII & VIII

Financing agreement number 6125/REG
9 ACP RPR 032

8ACP TPS – 32/40

October 2005

ACRONYMS

ACORD	Agency for Co-operation and Research in Development
ADRA	Adventist Development and Relief Agency
ADS	Area Development Scheme
AH&EDC	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 Animal Health 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
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.
OIE	Office International des Epizooties
OLS	Operation Lifeline Sudan
OXFAM-GB	Oxfam Great Britain
PACE	Pan African programme for the Control of Epizootics

PARC	Pan African Rinderpest Campaign
PCU	Programme Co-ordination Unit
PDS	Participatory Disease Search
PI	Performance Indicator
PID	PACE Integrated Data base
PPR	Pest des Petits Ruminants
RADCP	Regional Animal Diseases Control Project
RADISCON	Regional Animal Disease Surveillance and Control Network
RCOs	Regional Coordinator Offices
RVF	Rift Valley Fever
SC-UK	Save the Children – United Kingdom
SFIA	Senior Field Investigation Advisor
SPLM	Sudan People's 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-S	Veterinaires sans Frontieres Switzerland
VSF-G	Veterinaires sans Frontieres Germany

SUMMARY: PROPSAL OF WP&CE FOR THE PERIOD 01/11/2005 – 31/10/2006

The WP/CE was elaborated in close cooperation with the National PACE coordinator, all directors and heads of units at the Department Animal Health & Epizootic Diseases Control (AH&EDC), and has been approved by the Steering Committee of the PACE Sudan northern sub-project.

This WP/CE describes the projects activities planned for the period 01.11.2005 - 31.10.2006 which is the last year of the extension phase of the PACE Programme.

This WP/CE is based on

- **PACE Global Work Plan & Cost Estimate for Sudan** prepared in collaboration with OAU/IBAR in June 2001,
- **General Work Plan & Cost Estimate for the Two-Year Extension of the PACE Sudan Project** prepared together by the southern and northern sub-project during the 4th Annual PACE Coordination Meeting held in Yaounde, June 22 – 25, 2004, and
- Recommendations of several workshops and the consultancy mission of Dr. Freeland to the PACE Sudan project from 19th June to 15th July 2005.

The WP/CE will require a budget of in total **€ 1,139,145 (= 100%)** of which **€ 666,667 (= 59%)** equal to SDD 200,000,000 will be contributed from the Government of Sudan, and **€ 472,478 (= 41%)** will be paid from the EDF. The 31st July 2006 will be the last day of disbursement of EDF funds.

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, and administrative and political support.

The WP/CE considers the recommendations of the PACE Financial Controller and the PACE Coordination Unit at AU/IBAR Nairobi for the elaboration of Extension WP Year 2 and the budget forecast of the Service Contract between GTZ-IS and AU/BAR (see Annex).

The WP/CE implementation facilitates

- the eradication of rinderpest in Sudan which will be achieved earliest in 2008 provided that no new outbreak of the diseases will occur and the OIE pathway will be executed fully and timely, and
- the handing over of the PMU to the Sudanese counterparts to ensure sustainability of major achievements and activities initiated by the PACE programme.

The major activities to be implemented till October 2006 can be summarized as follows:

- Fulfillment of the OIE requirements of passive and active rinderpest surveillance, particularly the conduction of random rinderpest sero-surveillance surveys in the whole country, namely the completion of 1st rinderpest sero-surveillance survey in zone A3 and zone B, and the completion of 2nd rinderpest sero-surveillance in zone A (A2, A3) by June 2006
- Conduction of PDS in selected areas and the completion of the purposive surveillance of cattle in contact with wildlife concentrations
- Improvement of information flow of disease reporting between Information Units at headquarter and state level

- Training and refresher training of veterinary personnel in priority areas of rinderpest eradication & diseases surveillance, namely in PID/ ARIS, PDS, sero-surveillance and laboratory diagnosis; furthermore, CAHWs will be trained in relevant topics of disease surveillance
- Support to laboratories for testing of rinderpest sero-surveillance samples and general disease diagnosing
- Support to the national CBPP control strategy and to the elaboration of control strategies for other identified priority diseases
- Coordination and harmonization of project activities between the northern – and southern PACE Sudan sub-project
- Handing over of PMU to AH&EDC Department/ FMAR&F to sustain project activities initiated by the PACE project

The implementation of this work plan will contribute to the achievement of the four project results defined in the Project Planning Matrix.

Result 1: *Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 and is on schedule for recognition of freedom from infection on a country-wide basis in 2008*

Result 2: *The epidemio-surveillance system (ESS) is strengthened*

Result 3: *The control of CBPP and other priority diseases is improved throughout the country*

Result 4: *Project is managed efficiently*

The main achievements of the PACE Sudan project in extension year 1 (1st November 2004 to 31st October 2005) are summarized in chapter 1.0, and the main activities to be executed and the estimated costs for the project implementation in extension year 2 (1st November 2005 to 31st October 2006) are displayed in chapter 2.0 to 4.0.

1.0 ACHIVEMENTS DURING IMPLEMENTATION OF EXTENSION WP/CE YEAR 1 (PERIOD: 01/11/ 2004 – 30/10/2005)

EXECUTIVE 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 forces) 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.
During the WP/CE implementation period from 1st November 2004 to 31st October 2005, the project completed and consolidated activities which already had started before the extension phase, particularly

- the enhancement of the national epidemio-surveillance system (ESS),
- the completion of the first round of sero-surveillance survey in zone A,
- the improvement of laboratory capacity for diagnosis of rinderpest and CBPP.

In May 2005, the 73rd General Session of the OIE recognized the northern and central part of the Sudan (zone A) as free from rinderpest disease which is considered as a major step in the eradication of rinderpest.

In August 2005 the project facilitated the completion and submission of the Sudan dossier for recognition of freedom from rinderpest diseases in the whole country to OIE.

Furthermore, the project gave considerable logistic support to rinderpest surveillance activities through the facilitation of field missions of central and state veterinary personnel, the conduction of participatory disease search and PID follow-up missions.
The project supported the 1st random rinderpest sero-surveillance survey in zone A comprising (19) federal states for collection of (6,345) sera sample for recognition of freedom from rinderpest infection.

The PACE Integrated Database (PID) was introduced into another (7) federal states bringing up the number of user states to (26). Funds were disseminated to (23) PACE state offices and (15) regional veterinary laboratories for facilitation of field missions, outbreak investigations and diagnosing of priority diseases.

The project facilitated (9) training workshops on participatory epidemiology, PID, PDS, enhancement of laboratory diagnosing, and rinderpest sero-surveillance for altogether (135) veterinarians, the participation of (8) senior government officers in (4) regional and international meetings and the participation of (7) vets in regional and international training workshops.

The project management made comprehensive efforts to strengthen the laboratory capacity for diagnosing of rinderpest and CBPP. The National Rinderpest Reference Laboratory and the CBPP Laboratory at the CVRL in Soba, as well as the newly established Rinderpest ELISA Unit at FMAR&F, received considerable support through provision of laboratory equipment, reagents, consumables and training.

In June/ July 2005 a consultancy was conducted to evaluate the PACE Sudan project and the on-going animal health activities implemented by the FMAR&F. The findings of the consultancy will be considered in Extension WP/CE Year 2.

1.1 Result 1

Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 and is on schedule for recognition of freedom from infection on a country-wide basis in 2008

ACTIVITY	Nov 2004 – Oct 2005			
	11/04 – 1/05	2/05 - 4/05	5/05 – 7/05	8/05 – 10/05
Result 1				
1.1 Make self-declaration of provisional freedom from rinderpest on country-wide basis by December 2004	X			
1.2 Apply for country-wide freedom from rinderpest disease by September 2005				X
1.3 Investigate stomatitis-enteritis reports whenever they occur	X	X	X	X
1.4.1 Conduct participatory disease searches in high risk areas	X	X	X	X
1.4.2 Conduct random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2005	X	X	X	
1.4.3 Conduct random sample sero-surveillance in zones A3 and B to be completed by June 2006			X	X
1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations		X	X	
1.5 Maintain rinderpest outbreak emergency preparedness – contingency plan and supplies. Receive regular updates of developments in the Somali ecosystem and respond accordingly.	X	X	X	X

EXPLANATION: activity timely and satisfactorily implemented

EXPLANATION: activity has started but not yet completed

1.1 Make self-declaration of provisional freedom from rinderpest on country-wide basis by December 2004

The self-declaration of provisional freedom from rinderpest disease on country-wide basis was submitted to OIE in December 2004.

In May 2005 the 73rd General Session of the OIE recognized the northern and central part (= zone A) of Sudan as 'free from rinderpest disease', see scanned OIE certificate below:

Organisation Mondiale de la Santé Animale
World Organisation for Animal Health
Organización Mundial de Sanidad Animal

OIE

Certificat

Rinderpest status of Sudan

This is to certify that following a recommendation of the OIE Scientific Commission for Animal Diseases, the International Committee of the OIE has on 25 May 2005 approved that a zone of Sudan be recognised as free from rinderpest disease in accordance with the provisions of Appendix 3.8.2 of the OIE Terrestrial Animal Health Code.

This recognition is based on the documentation submitted to the OIE by the Official Veterinary Services of Sudan. The Delegate of Sudan to the OIE has the obligation to notify the OIE immediately of any epidemiological event relating to rinderpest disease in Sudan.

Paris, 25 mai 2005

Abdoulaye B. Diallo
President

Bernard Vallat
Director General

1.2 Apply for country-wide freedom from rinderpest disease by September 2005
The project formed in May 2005 a task force that prepared the recent Sudan rinderpest dossier for country-wide recognition of freedom from rinderpest disease. The dossier was submitted to OIE on 15th August 2005.

1.3 Investigate stomatitis-enteritis reports whenever they occur
During the reporting period (33) diseases outbreaks were investigated by veterinary personnel of state veterinary offices and AH&EDC Department in Soba.
(7) outbreak rumors were notified as stomatitis / enteritis in cattle. The field investigation teams visited the outbreak areas, examined sick cattle and collected specimen to be investigated by the CVRL. No clinical signs of rinderpest were found. The clinical symptoms observed were suspicious for FMD and other diseases, but not for rinderpest (see table 3 below):

Table 1: Investigation of stomatitis/ enteritis outbreak rumors

No.	State	When	Diagnosis
1	North Darfur	December 2004	FMD
2	South Darfur	December 2004	FMD
3	Khartoum	March 2005	Feed poisoning
4	Kassala	July 2005	False report, (tuberculosis & brucellosis)
5	West Darfur	September 2005	FMD
6	West Bahr al Ghazal	September 2005	FMD
7	Gezira	September 2005	FMD

Furthermore, the project facilitated (15) field missions to follow-up the vaccination programme of the FMAR&F against priority animal diseases (Anthrax, BQ, CBPP,HS, Sheep Pox, PPR) and (10) field missions of other reasons (distribution of emergency preparedness field equipment, upgrading of radio-communication system).

In September 2005, the project facilitated random sample clinical surveillance in altogether (42) cattle herds in five states: Red Sea and River Nil state [1 herd each], Khartoum state [2 herds], Northern state [3 herds], White Nile state [35 herds].
The remaining (14) states will be covered in extension work plan year 2.

1.4.1 Conduct participatory disease searches in high risk areas
Altogether (24) PDS mission were conducted in areas of high cattle movement and earlier outbreak rumor reports.
After notifying disease outbreak rumors and death in cattle in South Dafur and West Bahr El Ghazal state, (1) PDS team visited the area near the borders with Chad and Central African Republic in November 16 – 21, 2005. The findings of the participatory diseases search were indicative for MCF, BVD and tick-borne diseases, but did not support clinical symptoms of rinderpest. In February 2005 another (2) PDS missions were conducted in West Bahr El Ghazal state around Raja and Deim Zubair area towards the CAR border. No clinical symptoms of rinderpest were observed.
From April to October 2005 another (21) PDS expert teams conducted participatory disease searches in (16) federal states[3]. No symptoms of rinderpest disease were found or reported during the about (360) interviews of pastoralists.

[3] Dafur [3], South Kordofan [2], Bahr El Jabel [2], Upper Nile [2], West Bahr Al Ghazal [2], North Kordofan [1], Jongolei [1], , Warab [1], Lakes [1], Eastern Equatoria state [1], White Nile state [1], Gezira [1], Sennar [1], Blue Nile [1], Kassala [1] and Gezira state [1]

1.4.2 Conduct random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2005

In November 2004, the project staff up-dated the rinderpest sero-surveillance plan for zone A and zone B, particularly the budget plan. The total cost estimate of the sero-surveillance in (19) states of the RP free zone (=zone A) amounted to SDD 17,566,160 (= € 55,733) of which SDD 4,756,600 (= € 15,100) were paid from local component and SDD 12,799,560 (= € 40,633) from the foreign contribution.

Two rinderpest sero-surveillance training workshops for altogether (50) veterinarians of zone A were conducted in Dongola, Northern State, from 12 – 16 December 2004 (see photograph below) and in Kadugli, South Kordofan state from March 17 – 23, 2005. The workshops familiarized the sample collection teams with the sampling method and procedures to be applied in the random sero-surveillance survey.
Both training workshops received great attention by the local authorities.

Photograph 1: Exercising the random sampling approach during the sero-surveillance workshop in Dongola, 12 – 16/12/2004

Between both training workshops, the representatives of the PACE Sudan northern- and southern sub-project met in Nairobi on 14th January 2005 to up-date the earlier elaborated rinderpest sero-surveillance action plan and to agree on details of its execution.
Bearing in mind that in accordance with the OIE pathway the whole country should be surveyed twice in the last two years before application for recognition of freedom from rinderpest infection (= in September 2007), that sero-surveillance should not start until 3 years after the last vaccination in a given area, and based on the discussions in earlier meetings, it was agreed that blood sample collection would be carried out as follows:

- **First survey of 314 randomly selected herds:**
  Zone A (A1, A2, A3): January to June 2005;
  Zone A3 and B: September 2005 to June 2006;

- **Second survey of 314 randomly selected herds**
  Zone A (A2 & A3): January to June 2006
  Zone A3 and B: September 2006 to June (better: April) 2007

Altogether (19) rinderpest surveillance teams went to (19) federal states and collected 6,345 blood samples from 314 randomly selected cattle herds from April to June 2005. All field missions completed their work till 30/06/2005. The sero-samples were submitted to the ELISA laboratory for testing. So far, (4,205) sera were tested by the Rinderpest ELISA Unit at FMAR&F and by the National Rinderpest Reference Laboratory at CVRL.

At present, (4) sero-surveillance teams are re-visiting cattle herds in West Darfur, Sennar, Gezira, and White Nile state to collect additional sero-samples for laboratory testing.

1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations
Altogether (6) purposive sero-surveillance surveys in cattle in contact with wildlife were conducted in South Darfur, Kassala, Gedarif, Blue Nile, Sennar and West Kordofan state; so far (561) sero-samples have been submitted for laboratory testing.
Another (3) purposive sero-surveillance surveys will be conducted in North Bahr al Ghazal, Unity and West Equatoria before December 2005.

Photograph 2: Purposive sero-surveillance in Random area, South Darfur state: Sero-surveillance team informs pastoralists about their mission; dentition; blood sample collection;, separation of sera

1.5 Maintain rinderpest outbreak emergency preparedness – contingency plan and supplies. Receive regular updates of developments in the Somali ecosystem and respond accordingly.
The project continued the procurement of veterinary equipment and consumables for outbreak emergencies in the value of 8,500 €. More procurement is foreseen in forthcoming months.

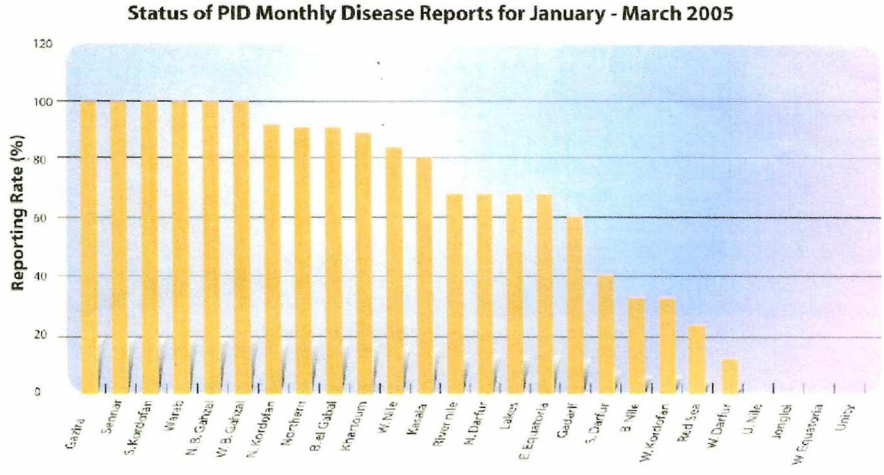
The project received updates on the Somali ecosystem during the 9th OLS North/ South Livestock Coordination Meeting in Khartoum, 12 – 16/06/2005 and during the 5th PACE Annual Coordination Meeting in Dakar, 28/06 – 01/07/2005.

1.2 Result 2

The epidemio-surveillance system (ESS) is strengthened

Result 2	11/04 – 1/05	2/05 - 4/05	5/05 – 7/05	8/05 – 10/05
2.1 Support passive surveillance, in particular monthly general disease reporting	X	X	X	X
2.2 Introduce ARIS country-wide and provide reports regularly to IBAR and OIE	X	X	X	X
2.3 Prepare budget for maintenance of epidemio-surveillance system and lobby government to allocate funds.	X	X	X	X
2.4 Train veterinarians, auxiliaries (including CAHWs) on relevant subjects to maintain ESS.	X	X	X	X
2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services	X	X	X	X
2.6 Provide resources to support ESS	X	X	X	X
2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories	X	X	X	X
2.8 Co-ordinate with neighboring countries on surveillance and trans-boundary disease control through border harmonization meetings and PACE co-ord. meetings.	X	X	X	X

2.1 Support passive surveillance, in particular monthly general disease reporting
Passive surveillance data from (26) states are compiled monthly by the staff of the Central Information Unit at AH&EDC Department and are sent to IBAR and OIE. Approximately 2/3 of the (26) federal states with in total 134 localities meet the GREP performance indictors[4] of general disease surveillance and reporting.
In first and second quarter of 2005, 12 and 14 feral states respectively forwarded general diseases reports from more than 90% of the localities to Central Information Unit at AH&EDC Department in Soba (see graph below: reporting performance of states in 1. quarter 2005).



[4] It is recommended that 90% of districts forward general diseases reports within 30 days at least 10 months per year

It is expected that the close follow up of this issue by the PACE management in combination with the establishment of the national PID/ ARIS epidemio-surveillance network, the introduced incentive payment approach for accurate and timely reporting and other appropriate measures (training, technical support) will further enhance the monthly disease reporting from states to federal level and the dissemination of regular feed-backs from headquarter in Soba to states.

However, the increase of general diseases reporting needs further attention and follow-up of the veterinary authorities, particularly in those states with unsatisfactory reporting performance.

2.2 Introduce ARIS country-wide and provide reports regularly to IBAR and OIE

The Animal Resources Information System (ARIS/ PID) was introduced in all (26) states as 'manual method' for monthly disease reporting in January 2004. Since then, the PACE Sudan project has continuously upgraded the knowledge of the information officers and technical facilities at state level to operate the hard- and software.

From March 21 – 27, 2005, the project conducted the third PID/ ARIS training workshop for (12) participants of the remaining (7) federal states [Red Sea, Lakes, Warab, Unity, Upper Nile, West- & East Equatoria, Jongolei] and for (3) trainees of AH&EDC Department in Soba. At the end of the workshop, the project provided the participating states with computers, accessories and ARIS/ PID software. This increased the number of states equipped with PID/ ARIS soft- and hardware to (23). The last remaining (3) states [West & East Equatoria, Northern Bahr al Ghazal] will receive their computers in forthcoming months.

During the reporting period, the staff of the Central Information Unit paid follow-up visits combined with on-the-job training to (14) ARIS/ PID user states [North, South & West Kordufan, Gedaref, River Nile, West Darfur, Bahr El Jabal, West Bahr El Ghazal, Khartoum, Sennar, White Nile and Northern state, South Darfur, Red Sea state].
In recent visits to South Darfur & Red Sea state in September 2005, the PID follow-up teams conducted (2) one-day training workshops to familiarize the veterinary personnel at state level with the potential and capacity of the internet-based PID/ ARIS programme.

The next step for country-wide application of PID/ ARIS will be the establishment of networking between the states and the federal level.

Furthermore, the project will conduct re-fresher training for information officers to upgrade the current ARIS software version, and awareness workshops at state level to familiarize decision makers with the performance and capacity of the new software programme.

2.3 Prepare budget for maintenance of epidemio-surveillance system (ESS) and lobby government to allocate funds.

The management of the PACE project is lobbying for government funds and also for additional funding of the PACE project and 'post-PACE' activities from external financial sources.

The issue of Government budget allocation for the maintenance and sustainability of the ESS was intensively addressed during the short term consultancy of Dr. Guy Freeland from 19/06 to 15/07/2005 who evaluated the PACE Sudan project and identified future intervention areas.
Furthermore, the provision of sufficient GOS funds to the PACE Sudan project has been addressed in several meetings of the Technical Committee and the Steering Committee throughout the last year.
As a major achievement of the continuous lobbying and awareness creation among decision makers, local funds of SDD 200,000,000 (equal to € 666,667) will be made available for the implementation of the PACE Sudan project in extension year 2.

Photograph 3: The members of the Technical Committee discuss with Dr. Freeland his findings

2.4 Train veterinarians, auxiliaries (includ. CAHWs) on relevant subjects to maintain ESS.
The PACE Sudan project has trained since the start of the programme in February 2003, altogether 645 vets in (36) training workshops/ courses on (15) different topics.

Since November 2004, the project trained (135) vets in (9) courses/ workshops on (5) different subjects (see table below).

Table 2: Training workshops and courses facilitated by the PACE Sudan project

No.	Training course/ workshop on	Place	Duration	Training days	No. of trainees	Man days training	Remarks
1	Sero-surveillance training workshop	Dongola	12 -16/12/04	5	21	105	in collaboration with ARRC
2	1st CBPP training workshop	El Sennar	03 - 05/01/05	3	10	30	in collaboration with ARRC
3	2nd CBPP training workshop	Nyala	16 - 18/01/05	3	10	30	in collaboration with ARRC
4	data management training	Soba	26/02 - 03/03/05	6	12	72	
5	Sero-surveillance training workshop	Kadugli	17 – 23/03/05	7	27	189	
6	PID training for states	Soba	21 – 27/03/05	6	15	90	
7	data management training	Soba	16 – 20/04/05	5	15	75	Trainer: Dr. Baumann
8	PE for vets of mobile units	Al Damer	14 – 21/05/05	7	15	105	
9	3rd CBPP training workshop	Juba	13 – 15/09/05	3	10	30	
	Total			**45**	**135**	**726**	

Additionally, the project facilitated two strategy workshops:

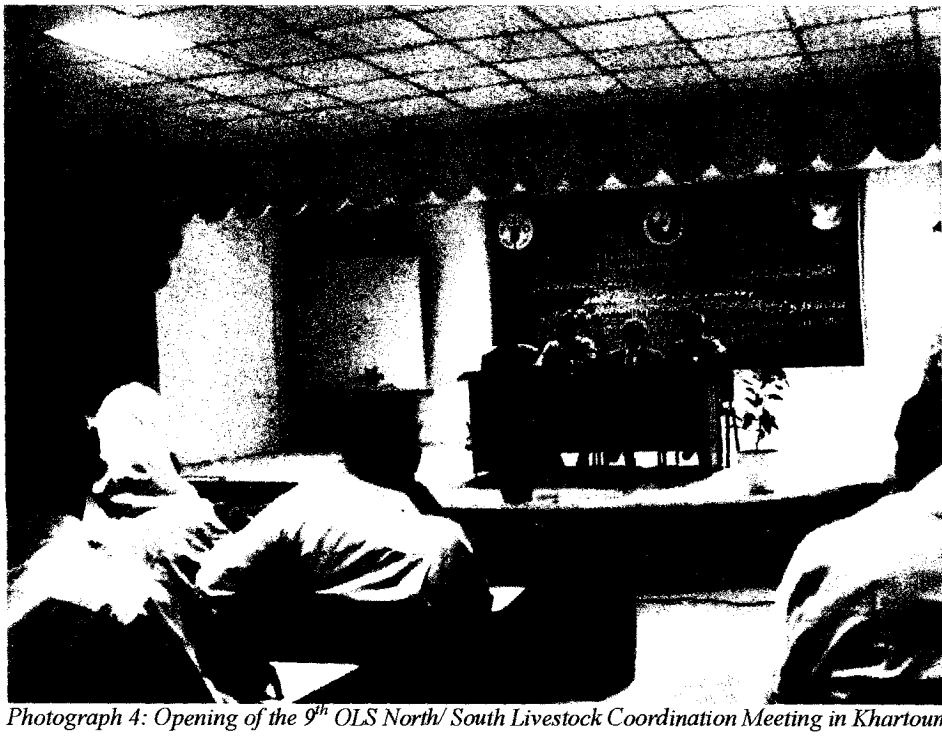
- Workshop on CAH activities, Khartoum, 04/04/05
- 9th OLS North/ South Livestock Coordination Workshop, Khartoum, 12 – 16th June 2005
- regional training of (1) on risk assessment [HCCP approach], Cairo, July 09-14, 2005.
- regional training of (2) veterinarians on the ELISA method, Amman, July 12-22, 2005,

The project facilitated for (4) senior Government veterinarians a 1-week study tour on risk assessment and epizootic diseases control to Germany. The participants visited federal and state institutions of the German Ministry of Agriculture and Consumer Protection and discussed relevant technical issues of epidemio-surveillance and diagnostic of priority diseases. The tour was organized in collaboration with the Department of International Animal Health, Freie Universitaet, Berlin.

2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services

The exchange of information between livestock keepers and government veterinary services mainly happens through diseases surveillance activities on grass roots (PDS, PE), community-based approaches (CAHWs) and meetings at different levels. The PACE project has addressed this issue in coordination meetings and training courses and enhances the information exchange between veterinary personnel and pastoralists at different levels, for example through provision of resources and technical support to the Central Communication Unit, to PDS teams, and disease surveillance teams at grass roots (mobile unit teams).

The 9th OLS North/ South Livestock Coordination Meeting in Khartoum, June 12 – 16, 2005 (see photograph below) addressed intensively the rinderpest situation in northern and southern Sudan and up-dated the participants on the issue of mild rinderpest in the Somali ecosystem.
The meeting was attended by (125) participants including representatives of the SAARS (= Southern Agriculture and Animal Resources Secretariat).



Photograph 4: Opening of the 9th OLS North/ South Livestock Coordination Meeting in Khartoum, 12/06/2005

2.6 Provide resources to support ESS

Since November 2004, the project provided the following resources to almost all states to enhance the efficacy of the national epidemio-surveillance system (see Table 3).

Table 3: Provision of resources to support ESS at federal states

Kind of resource/ support provided	Number of states provided	Total amount in SDD	States not considered	Reason
Field investigation funds: 150,000 SDD/ state	23	3,450,000	Western Darfur, El Gedarif, Northern Bahr EL Ghazal	Previous funds not yet cleared
Consumables & supplies for PACE state office: 200,000 SDD/ state	22	4,800,000	Northern Darfur, El Gedarif, Northern Bahr EL Ghazal, Malakal	Previous funds not yet cleared
Support for telecommunication with AH&EDC: 50,000 SDD/ state	23	1,150,000	Western Darfur, El Gedarif, Northern Bahr EL Ghazal	Previous funds not yet cleared
TOTAL	**22 – 23**	**9,400,000 (= 30,300 €)**		

Additionally, the project keeps funds to support the emergency maintenance of communication equipment, computers and operational costs of (15) centrally managed PACE disease surveillance vehicles.

2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories

Throughout the extension year 1, the PACE management discussed thoroughly matters related to the improvement of the diagnostic capacity (equipment, reagents, consumables, training, etc.) of the newly established ELISA Unit at FMAR&F and the National Rinderpest Reference Laboratory at CVRL in Soba.

Great efforts were made to provide both laboratories with urgently needed equipment and consumables from local market and abroad in the value of approximately 65,000 €.

On July 07, 2005 the ELISA Unit at the FMAR&F was officially inaugurated by HE the Federal Minister of Animal Resources & Fisheries.

Both laboratories are cooperating well in the day-to-day activities and in testing the collected rinderpest sero-surveillance samples.

Furthermore, the project provided funds in collaboration with the head quarter of the ARRC to (15) regional veterinary laboratories for procurement of laboratory reagents and consumables amounting to 14,000 €.

2.8 Co-ordinate with neighboring countries on surveillance and trans-boundary disease control through border harmonization meetings and PACE co-ordination meetings

The Sudanese (veterinary) authorities who hosted the 16th Conference of the World Organization for Animal Health (OIE) Regional Commission for Africa in Khartoum from 7 – 10 February 2005 used this international platform to address and discuss relevant issues of diseases surveillance and trans-boundary animal diseases control with the delegates of neighboring countries.

Photograph 5: 16th Conference of the World Organization for Animal Health (OIE) Regional Commission for Africa in Khartoum from 7 – 10 February 2005

Prior to the conference, the PACE management contacted the PACE Coordinator in Nairobi and the National PACE Coordinators/ Directors of Veterinary Services of Ethiopia, Chad and CAR to attend a cross-border harmonization meeting (CBHM) during the course of OIE conference. However, due to the comprehensive conference agenda and because of time constrains it was not practical to conduct a separate formal meeting in Khartoum. It was agreed in the TCM-15 on 24/02/2005 to find another date for the CBHM.

The 9th OLS North/ South Coordination Workshop held in Khartoum, June12 – 16, 2005 was another forum to exchange views and experience on the current rinderpest eradication situation in Sudan in neighboring countries.

1.3 Result 3

The control of CBPP and other priority diseases is improved throughout the country

Result 3	11/04 – 1/05	2/05 - 4/05	5/05 – 7/05	8/05 – 10/05
3.1 Develop and implement a control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE				
3.2 Develop strategies to control other identified priority diseases (FMD, PPR, ECF and other tick-borne diseases)	X	X	X	X

3.1 Develop and implement a control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE

Based on the national strategy to control CBPP by zoning (see map below: free zone, surveillance zone, endemic zone), movement control and targeted vaccination, and in collaboration with the FAO [see: TCP/SUD/3001 (A)], the project facilitated the conduction of the first phase of a CBPP survey in (11) federal states of the (3) zones that was completed in November 2004.

Map 1: CBPP zones in Sudan

Altogether (845) blood- and lung tissue samples were collected and tested. The laboratory results revealed that about 11% of the collected bovine sera (=70 of 666 samples) tested with ELISA at CVRL were positive[5].

At present, the second phase of the CBPP field survey in the surveillance and endemic CBPP zone for validation of previous laboratory findings has been completed. The laboratory findings and the conclusions will be presented in a national CBPP workshop in second half of 2005.

During last year, the project provided laboratory equipment (computer with accessories, orbital shakers, centrifuge rotor, pipetting controller, cooling aggregate) and consumables (glass ware, pipette tips, filters, etc.) to the CBPP laboratory in the value of about € 30,000 (see photograph below).

At present, the CBPP vaccine production unit at CVRL has the capacity to produce 200,000 doses of lyophilized CBPP vaccine in one production cycle, which is equal to the annual production of about 3,000,000 doses of CBPP vaccine. The CBPP vaccine production unit at CVRL soba can provide more than half of the CBPP vaccine required for the country-wide control of the disease.

Furthermore, the project facilitated in collaboration with FAO and CVRL (3) training workshops for altogether (30) veterinarians, meat inspectors and CAHWs on CBPP/CCPP surveillance and control in Sennar from 2 – 5 January, in Nyala from 15 – 19 January, and in Juba from 10 – 13 September 2005.

The main objectives of these workshops were to increase the level of preparedness and awareness of animal health field workers and livestock owners in the control of the two diseases. The topics covered included methods of recognition, prevention, appropriate sample types and procedures for collection, and procedures for reporting suspicious cases. The (20) trainees comprised veterinary staff, slaughter house and laboratory technicians, and CAHWs.

[5] The testing was facilitated by a FAO experts in collaboration with FAO (Project TCP/SUD/3001 (A)

Photograph 6: CBPP vaccine production facility at CVRL Soba: left corner: cooling aggregate [blue] provided by PACE Sudan project for the new vaccine lyophilizer (center

3.2 Develop strategies to control other identified priority diseases (FMD, PPR, ECF and other tick-borne diseases)

At present, the project supports the development of control strategy for FMD in Sudan particularly through the execution of a technical cooperation programme (TCP) signed between FAO and the FMAR&F in 2004. The TCP aims at the identification of circulating FMD serotype and sub-types (= topotypes) in certain regions of Sudan to know more about the distribution and prevalence of FMD virus and to decide on appropriate vaccination strains to be used for particular areas.

Several field missions for collection of specimen in different regions of Sudan were facilitated since November 2004.

In March 2005, the first batch of tissue samples of clinical FMD cases was sent to the World Reference Laboratory (WRL) in Pirbright/ U.K.

The genetic analysis of three FMD virus isolates identified FMD virus type "O" were further characterized by complete VP1 gene sequencing.

Comparison of the derived sequences with those in the database available to the WRL indicates they fall within a genetic grouping of FMD type viruses that has so far on been detected in north-east Africa (Eritrea in 2004, Sudan in 1999 and 2004, Ethiopia in 1994) and Yemen in 2004.

The WRL concludes further that the presence of FMD type O virus from Sudan from 1986 in this group suggests that this genetic type has been present for a considerable time in the region, continuing to circulate and to evolve.

These first results give important insights into epidemiological situations and links of FMD outbreaks in Sudan and in the region which are worthwhile to be continued and supported by the project.

The project is supporting in collaboration with the Arab Organization for Agricultural Development the development of a control strategy for Rift Valley Fever (RVF). Two strategy meetings, procurement of (5) Abortion ELISA test kits for investigations in RVF sentinel herds in White Nile state, as well as, trapping, and entomological field studies for identification of vector insects transmitting the virus to humans and animals (see photograph below) were facilitated by the project.

Photograph 7: Trapping of vector insects transmitting RVF in humans and animals

1.4 Result 4

Project is managed efficiently

Result 4	11/04 – 1/05	2/05 - 4/05	5/05 – 7/05	8/05 – 10/05
4.1 Integrate project management structures to implement ESS and emergency preparedness in a sustainable way				

It can be stated that the authorities of the FMAR&F and the management of the AH&EDC Department are very supportive to the implementation of the PACE project. Most of veterinary personnel of the AH&EDC Department is involved in the overall project implementation; the counterparts are highly dedicated to the programme.

The PACE project is implemented in a transparent, participatory and integrative manner. Meetings of the members of the PACE Technical Committee are conducted regularly to discuss and decide on relevant aspects of the project implementation. The decisions & recommendations of the members of the Technical Committee are supported by 'follow-up meetings' for execution of the day-to-day activities. On the other hand, the PACE T.A. also attends relevant meetings of AH&EDC Department which reflexes the integration of the PACE project into the day-to-day activities of the AH&EDC Department.

Since November 2004, the project conducted (7) meetings of the Technical Committee (TCM-14: 08/12/04; TCM-15: 21/02/05; TCM-16: 17/04/05; TCM 17 –10/05/05; TCM-18: 21/06/05; TCM-19: 13/07/05; TCM-20: 21/09/05) and several 'follow-up meetings' dealing with the execution of day-to-day work.

The training committee (established in December 2004) conducted (2) meetings till to-date.
The procurement committee met several times to discuss and approve the purchase of urgently needed equipment and consumables for AH&EDC Department and the CVRL.

Several task forces for (laboratory matters, sero-surveillance activities, PACE News letter) supported the project in many ways.

All the committees and task forces make their contribution to implement the ESS and emergency preparedness in a sustainable way.

1.5 Fulfillment of Objectively Verifiable Indicators (OVIs)

The following figure compares the current project implementation status with the objectively verifiable indicators of the (4) results. It reflects where the project presently has arrived in respect to fulfillment of expected outputs:

Table 4: Fulfillment of Objectively Verifiable Indicators (OVIs)

Intervention logic	OVIs	Present status of achievement
RESULT 1. Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 (and is on schedule for recognition by OIE of freedom from infection on a country-wide basis in 2008)	Self-declaration of country-wide provisional freedom by December 2004. OIE accepts application for freedom from disease on zonal basis (zone A) in May 2005 and country-wide in May 2006	December 2004 – Achieved May 2005 – Achieved Dossier for recognition of country-wide freedom from rinderpest disease submitted to OIE in August 2005
RESULT 2. The epidemio-surveillance system (ESS) is strengthened.	PACE and OIE reporting requirements fulfilled 80% localities report 10/12 months of the year All of states using ARIS by October 2006	Reporting requirements fulfilled About 60% of localities meet this indicator (23) federal states provided with PID/ ARIS software & computers in March 2005; all states use PID/ARIS reporting formats since 2004
RESULT 3. The control of CBPP and other priority diseases is improved throughout the country.	CBPP strategy document updated Number of vaccinations carried out Epidemiological data analyzed. Control strategies for other identified priority diseases developed.	National CBPP strategy formulated and approved in August 2003 Vaccinations done: 2003: 203,653 2004: 569,754 2005: 231,710 (at 30/06/2005) analysis of epidemiological data of second survey is almost completed; other control strategies addressed: FMD – virus samples typed; several strategy meetings conducted RVF – (3) strategy meetings conducted investigations in sentinel sheep herd and collection of vector insects on-going
RESULT 4. Project is managed efficiently	Project implemented on schedule and within budget	Project is implemented on schedule and within budget

2.0. PROPOSAL OF EXTENISON WORK PLAN & COST ESTIMATE YEAR 2 (PERIOD: 01/11/2005 – 31/10/2006)

2.1 RESULT 1

Result 1:
Sudan is recognized by OIE as free of rinderpest disease country-wide in May 2006 and is on schedule for recognition of freedom from infection on a country-wide basis in 2008

Activities:

1.1 Make self-declaration of country-wide provisional freedom from rinderpest disease by December 2000:
This activity was completed in December 2004.

1.2 Apply for country-wide freedom from rinderpest disease by September 2005:
This activity was completed in August 2005.

1.3 Investigate stomatitis-enteritis reports whenever they occur

The project will promote the reporting of stomatitis-enteritis (S/E) reports. All reports will be investigated through field and laboratory testing to obtain a conclusive diagnosis wherever possible.

The project will provide logistic support to field teams, including provision of essential equipment for sampling of specimen and pen-side tests for rapid field diagnosing if requested.

1.4 Carry out active rinderpest surveillance

1.4.1 Conduct participatory disease searches in high risk areas

Participatory disease searches (PDS) will be carried out in areas of high rinderpest risk. It is envisaged that at least one PDS mission will be carried out in each state of zone A3 and B.

The project will coordinate and supervise all PDS activities, and will give logistic support to PDS teams. This includes the provision of essential veterinary, sampling and communication equipment, conduction of feed-back meetings with PDS teams and the compilation of all relevant information.

1.4.2 Conduct random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2006:

Following the OIE rinderpest pathway two rounds of random sero-surveillance surveys have to be conducted for proving the freedom from rinderpest infection.

The 1st random sero-surveillance survey of 314 herds was already completed in July 2005; the laboratory testing of the 6,345 collected sero-samples will be finished till December 2005.

Following the OIE pathway schedule, the 2nd random sero-surveillance survey of 314 herds in zone A (A2, A3) has to be completed till June 2006.
The number of herds to be sampled per state will be allocated in proportion to the estimated cattle population.

The sampling frame will be prepared with advice from PACE Epidemiology Unit. 15 animals with 1 pair of permanent incisors will be sampled from each herd (or less if there are less than 15 in the herd).
Sero-surveillance teams led by veterinarian will be refresher trained in herd and animal selection, ageing, sample collection and handling, recording and identification of sampled animals.

Sampling equipment, cold chain and transport will be provided. Samples will be tested by ELISA at FMAR&F and MS&T. To ensure quality control, duplicates of 10% sera will be sent to Pirbright as well as duplicates of any samples that are found to be antibody positive.

The project will facilitate in close collaboration with the southern sub-project the planning and execution of sero-surveillance activities including training of sampling teams, logistic support for collection, transportation and laboratory testing of samples in-country and abroad.

1.4.3 Conduct random sample sero-surveillance in zones A3 and B to be completed by June 2006

The 1st random sample sero-surveillance survey of 314 herds in zones A3 and B has to be completed in June 2006. Sero-surveillance teams will be refresher trained and the same procedures will be followed as in 1.4.2.

Another 2nd random sample sero-surveillance survey in zone A3 and B will start in early 2006 but will not be completed during the course of the current WP/CE (to be completed till June 2007).

The project will support the implementation of the comprehensive 1st sero-surveillance survey in zone A3 and B and will facilitate the preparation of the 2nd sero-surveillance exercise.

1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations

A plan for purposive sero-surveillance already had been prepared in consultation with PACE targeting cattle in contact with wildlife concentrations in Pibor, Radom and Dindir area. (561) sero-samples were already forwarded to the ELISA laboratory for testing.

During the course of this WP/CE, the project will facilitate the completion of the purposive sero-surveillance by providing logistic support for collection, transportation and testing of sero-samples.

1.5 Maintain rinderpest outbreak emergency preparedness plan and supplies. Receive regular updates of developments in the Somali ecosystem and respond accordingly.

The project will continue to provide urgent needed equipment to be prepared for a possible emergency situation and will receive regular updates from PACE Epidemiology Unit on developments in the Somali ecosystem and other neighboring countries. If necessary surveillance will be intensified in areas that are considering to be at risk.

- The budget required for the implementation of activities of result 1 is € 403,050 of which € 215,050 (= 53%) will paid from EDF, and € 188,000 will be contributed from The GoS. For more information see: detailed cost estimate of northern sub-project, table 8 & 9.

2.2 RESULT 2

Result 2:
The epidemio-surveillance system (ESS) is strengthened

Activities:

2.1 Support passive surveillance, in particular monthly general disease reporting

Monthly general disease reporting from state to central level and the flow of information from HQ to states will be supported through training workshop and improved communication systems. The project will continue to pay incentives for accurate and timely reporting which was successfully introduced during previous work plan period.

The project will continue to support the DMEU/ Information Unit in the overall coordination, monitoring and supervision of disease reporting and feed-back of livestock data and surveillance information to federal states.

2.2 Introduce Animal Resources Information System (ARIS) country-wide and provide reports regularly to IBAR and OIE

The project facilitated the introduction of ARIS (former PID) to all (26) states in 2005. However, three states (North Bahr Al Ghazal, East & West Equatoria) still have to be provided with computers and funds will be provided to state information units for collection of essential basic data.

Personnel at state level will be supported through follow-up visits by epidemiology personnel of central level.

Furthermore, the project will facilitate

- the timely and accurate disease reporting to IBAR and OIE as required, and
- he establishment of a country-wide communication network (via internet) in selected states.

Considering the recommendations of the PACE Sudan project by Dr. Freeland in 2005, the project will facilitate (3) workshops at regional level to familiarize the relevant veterinary personnel, in particular decision makers at state level, with the capacity and the potency of the internet-based Animal Resources Information System.

(2) Refresher training courses will be conducted for information officers to update their skills and knowledge on information networking.

Follow-up visits of veterinary personnel of Central Information Unit will provide technical assistance to state epidemiology personnel to utilize the capacity and potency of ARIS.

2.3 Prepare budget for maintenance of epidemio-surveillance system and lobby government to allocate funds

The project will continue their efforts to sensitize decision makers at federal and state level to allocate sufficient funds within the national budget to sustain the existing national epidemio-surveillance system.

The project will also support the acquisition of additional funds to sustain the achievements of the current epidemio-surveillance system beyond the lifetime of the PACE project.

Furthermore the project will facilitate the dialogue among senior decision makers on livestock policies and priorities of veterinary services in Sudan.

2.4 Train veterinarians, auxiliaries (including CAHWs) on relevant subjects to maintain epidemio-surveillance system (ESS)

The project will support continuous training for veterinarians at field and central level to upgrade their knowledge and skills required for the implementation of the OIE rinderpest pathway and for improving the national epidemio-surveillance and diseases reporting. The following local training courses will be offered until 31/10/2006:

Table 5: Local training facilitated by the PACE project

Course	Duration	No. of courses planned	No. of trainees per course	Total No. of trainees	Responsible
Re-training of sero-sample collection teams	1 week	3	20	60	DMEU/ Information Unit
Re-training on PID/ARIS for state-based veterinary staff	1 week	2	12	24	Information Unit
Regional training workshop for decision makers on ARIS and GIS	4 days	3	20	60	DMEU/ Information Unit
PDS re-fresher training	1 week	1	15	15	Information Unit
Enhancement of diseases diagnostic capabilities	1 week	1	10	10	Animal Health Dep./ CVRL
Participatory Epidemiology for mobile disease surveillance teams	1week	1	15	15	Animal Health Dep./ DMEU
Training workshop for CAHWs	1 week	2	15	30	CAH Unit
Epidemiology/ data management for AH&EDC staff*	1 week	1	15	15	DMEU/ Information Unit/ PMU
Total		**14**		**229**	

* Training of veterinary personnel at AH&EDC Department

Furthermore, the project will facilitate the regional training of (2) veterinarians on relevant subjects of disease surveillance & OIE pathway.

2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services

- The project will collaborate with other partner organizations to conduct livestock co-ordination meetings in Khartoum attended by field veterinarians and personnel from FMAR&F and other partners. The objectives of the meetings are to review achievements, share information, plan future activities and promote common understanding. The project will also facilitate regional livestock co-ordination meetings attended by veterinarians from government, UN agencies, NGOs, private service providers, community leaders, CAHWs and livestock keepers.

- The project will assist in the formation of regional task force co-ordination committees (D.G. Animal Resources, Director of Veterinary Services of localities, Director of Ministry of Agriculture, NGO, Pastoral Union, tribal chiefs, etc) to follow up PACE related recommendations of the regional co-ordination meetings.

- The project will collaborate with other partners to support the implementation of the recommendation of the 9th North/South Livestock Co-ordination Meeting held in

Khartoum 12th to 16th June 2005 and to organize a workshop bringing together government veterinary services from north and south, PACE, FAO and livestock NGOs, private service providers and other key stakeholders to review achievements, share experiences and agree on policies and priorities for the future.

- The project will prepare (2) newsletters highlighting recent developments and achievements in disease control and project activities. The newsletters will be distributed to key stakeholders and PACE co-ordination offices at state level.
- The project will obtain, develop and distribute suitable materials for raising community awareness on different aspects of rinderpest eradication and surveillance. Project vets will organize community meetings in key areas to raise awareness, or provide support to other partners to facilitate community meetings.
- Furthermore, the project will support the Communication Unit at AH&EDC Department in development and dissemination of appropriate training and communication materials on Sudan's current strategy and achievements of rinderpest eradication and on the control of priority diseases.

2.6 Provide resources to support epidemio-surveillance system (ESS)

The project will contribute to the efficient functioning of the epidemio-surveillance system through improvement of communication, coverage and supervision, e.g. by provision of funds for telephone communication, transportation, equipment and support to field missions.

This includes the support to the DMEU/ Information Unit at AH&EDC department in the execution of its day-to-day work.

2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories

The project will contribute to the improvement of diagnostic capacity at central level by supporting the National Reference Laboratory for Rinderpest at CVRL, the CBPP laboratory at CVRL, and the rinderpest ELISA Unit at FMAR&F through provision of laboratory equipment, consumables, test kits and training.

In addition, the project will support regional laboratories with consumables and reagents for routine diagnosis of common diseases.

The project will facilitate the forwarding of samples to international reference laboratories when necessary. Sampling equipment and rinderpest pen side test kits will be provided to field investigation teams if needed.

2.8 Co-ordinate with neighbouring countries on surveillance and trans-boundary disease control through border harmonization meetings and PACE co-ordination meetings

Bearing in mind the movement of pastoralist groups across the borders between Sudan and its neighbors, all rinderpest and other trans-boundary animal diseases eradication activities will be coordinated with neighboring countries through border harmonization meetings and PACE co-ordination meetings. These will provide opportunities for information sharing, co-ordination of strategic and operational planning and will promote the optimal use of resources and complementary implementation of activities.

The project will make funds available for the conduction of (1) cross border harmonization meetings with neighboring countries and (2) regional coordination meetings.

- The budget required for the implementation of the activities of result 2 described above amounts to € 455,183 (= 100%) of which € 270,333 (= 59%) will be contributed by the GoS, and € 184,850 (= 41%) will be paid from EDF. About 2/3 of the allocated funds are required to sustain the national epidemio-surveillance system. For more details see: detailed cost estimate of northern sub-project, table 8 & 9.

2.3 RESULT 3

Result 3:
The control of CBPP and other priority diseases is improved throughout the country

3.1 Develop and implement a control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE

The project will continue to support the implementation of Sudan's TCP with the FAO that is jointly implemented by AH&EDC Department/ FMAR&F and the Central Veterinary Research Laboratory. The TCP supports the implementation of the national control strategy for CBPP and assists in the improvement of laboratory diagnostic capacity and the production of good quality CBPP vaccines.

Strategies and appropriate training modules for the control of CBPP have already been developed for northern (and southern) regions of the Sudan. These strategies and training modules will be integrated and updated in line with current thinking on CBPP control.

Epidemiological information on the dynamics and impact of CBPP will continue to be collected through general disease reporting, outbreak reports and investigations and participatory disease searching with follow up field and laboratory investigations.

The project will provide limited amount of laboratory equipment, consumables and diagnostic reagents for diagnosing of CBPP. Training, field investigations and the collection of epidemiological data will be facilitated.

3.2. Develop strategies to control identified priority diseases

The project will facilitate the efforts of the AH&EDC Department to develop strategies for the control of other identified priority diseases, like FMD, PPR, ECF and other tick-borne diseases, to be implemented by the Federal Ministry of Animal Resources & Fisheries. This includes the provision of diagnostic reagents and consumables, and the facilitation of sample collection and testing.

- The budget required for the implementation of the activities of result 3 described above amounts to € 200,933 (=100%) of which € 183,333 (= 91%) will be contributed from GoS funds, and € 17,600 (= 9%) will be paid from EDF. About 83% of funds are allocated to support the local production of good quality vaccines against priority diseases. For more details see: detailed cost estimate of northern sub-project, table 8 & 9.

2.4 RESULT 4

Result 4:
Project is managed efficiently

4.1 Integrate project management structures to implement ESS and emergency preparedness in a sustainable way.

- The project will maintain adequate capacity for effective project management and implementation and will facilitate the smooth handing over of project management unit to the AH&EDC Department/ FMAR&F to sustain project activities facilitated by the PACE project.
- The project will contribute to provide personnel, resources and running costs through the PMU in Khartoum, which will provide accounting, procurement and logistical support to the overall project implementation.
- The PMU will facilitate an effective and transparent project implementation through the conduction of regular meetings of the Technical Committee and Steering Committee. Temporary task forces will be formed and supported to elaborate strategy papers and concepts.
- The project will support the activities of the Community Animal Health (CAH) Unit at the AH&EDC Department/ FMAR&F to enhance the linkage between CAHWs and government veterinary services and to harmonize the training of CAHWs.
- The GOS has to prepare adequate budget allocations to take over all recurrent and management costs of project implementation after 31st July 2006.
- The project will provide (1) short term consultant (funded from respective GTZ-IS budget line of addendum # 3 of the service contract with AU/IBAR) to facilitate the self-evaluation of the veterinary service in Sudan (or, if prioritized: the development of a new project proposal within the AH&EDC Department/ FMAR&F).
- Furthermore, the project will facilitate the provision of up to (2) consultants for continuous training of relevant veterinary personnel in epidemiology/ diseases surveillance if funds will be available in the respective GTZ-IS budget line.
- Concerted efforts will be made to acquire additional funds for the completion of rinderpest eradication in Sudan.
- The northern and southern sub-projects will continue their cooperation to coordinate and harmonize all rinderpest surveillance activities until the eradication of the disease.

➢ The budget required for the implementation of the activities of result 4 described above amounts to € 79,978 (= 100%) of which € 54,978 (= 69%) will derive from EDF, and € 25,000 (= 31%) will be paid from GoS. For more details see: detailed cost estimate of northern sub-project, table 8 & 9.

➢ IMPLEMENTATION SCHEDULE

Table 6: Schedule of Implementation

ACTIVITY	Nov 2005 – Oct 2006			
	11/05 – 1/06	2/06 - 4/06	5/06 – 7/06	8/06 – 10/06
Result 1				
1.1 Make self-declaration of provisional freedom from rinderpest on country-wide basis by December 2004: **already completed**				
1.2 Apply for country-wide freedom from rinderpest disease by September 2005: **already completed**				
1.3 Investigate stomatitis-enteritis reports whenever they occur	X	X	X	X
1.4.1 Conduct participatory disease searches in high risk areas	X	X	X	X
1.4.2 Conduct 2nd random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2006	X	X		
1.4.3 Conduct 1st random sample sero-surveillance survey in zones A3 and in zone B to be completed by June 2006	X	X		
1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations	X	X		
1.5 Maintain rinderpest outbreak emergency preparedness – contingency plan and supplies. Receive regular updates of developments in the Somali ecosystem and respond accordingly.	X	X	X	X
Result 2				
2.1 Support passive surveillance, in particular monthly general disease reporting	X	X	X	X
2.2 Complete country-wide introduction of ARIS and provide reports regularly to IBAR and OIE	X	X	X	
2.3 Prepare budget for maintenance of epidemio-surveillance system and lobby government to allocate funds.	X		X	
2.4 Train veterinarians, auxiliaries (including CAHWs) on relevant subjects to maintain ESS.	X	X	X	
2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services	X	X	X	X
2.6 Provide resources to support ESS	X	X	X	
2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories	X	X	X	
2.8 Co-ordinate with neighboring countries on surveillance and trans-boundary disease control through border harmonization meetings and PACE co-ordination meetings.	X	X	X	X
Result 3				
3.1 Facilitate implementation of the control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE	X	X	X	
3.2 Develop strategies to control other identified priority diseases (FMD, PPR, ECF and other tick-borne diseases)	X	X	X	
Result 4				
4.1 Integrate project management structures to implement ESS and emergency preparedness in a sustainable way	X	X	X	X

4. BUDGET

A budget of € **1,139,145** (= 100%) is required for the implementation of this work plan (see table 7 below).
The Government of Sudan will contribute € 666,667 (= 59%) which is equal **to** 200,000,000 Sudanese Dinar, and € 472,478 will be paid from EDF.

Table 7: Budget required for the period 01/11/2005 – 31/10/2006

Result	Cost category	EDF	GOS	Total
Result 1: Sudan is recognized by OIE as free of RP	personnel	0	0	**0**
	equipment	41,800	33,333	**72,533**
	running cost	191,700	154,667	**346,467**
	subtotal 1	**233,500**	**188,000**	**419,000**
2. ESS is strengthened	personnel	0	0	**0**
	equipment	81,350	90,000	**171,350**
	running cost	77,150	180,333	**259,983**
	subtotal 2	**158,500**	**270,333**	**431,333**
3. Control of CBPP & other priority diseases improved	personnel	0	0	**0**
	equipment	15,500	0	**15,500**
	running cost	10,000	183,333	**193,333**
	subtotal 3	**25,500**	**183,333**	**208,833**
4. Project is managed efficiently	personnel	5,400	0	**5,400**
	equipment	1,000	15,000	**16,000**
	running cost	48,578	10,000	**58,578**
	subtotal 4	**54,978**	**25,000**	**79,978**
GRAND TOTAL 1-4		**472,478**	**666,667**	**1,139,145**

The following table 8 summarizes cost estimate for each activities and indicates the financial contribution of the GoS and the EDF funds, while table 9 displays the detailed cost estimate of the EDF fund allocation.

Table 8: Cost estimate of activities of Result 1 – 4

Activity	EDF FUNDS				GOS FUNDS					TO-TAL (€)
	Person-nel (€)	Equip-ment (€)	Run-ning cost (€)	Total (€)	Perso nnel (€)	Equip-ment (€)	Run-ning cost (€)	Total (€)	Total (1000 SDD)	
RESULT 1: SUDAN IS RECOGNIZED BY OIE AS FREE OF RINDERPEST										
1.1 Make declaration of provisional freedom from RP .... by December 2004	0	0	0	0				0	0	0
1.2 Apply for country-wide freedom from rinderpest disease by Sept. 2005	0	0	0	0				0	0	0
1.3 Investigate stomatitis-enteritis reports whenever they occur	0	0	32,710	32,710			30,000	30,000	9,000	62,710
1.4.1 Conduct participatory disease searches in high risk areas	0	1,200	21,600	22,800			38,000	38,000	11,400	60,800
1.4.2 Conduct 2nd random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2006	0	10,000	74,750	84,750			40,000	40,000	12,000	124,750
1.4.3 Conduct 1st random sample sero-surveillance in zones A3 and B to be completed by June 2006	0	7,500	56,750	64,250			40,000	40,000	12,000	104,250
1.4.4 Conduct purposive sero-surveil. in cattle in contact with wildlife	0	0	5,890	5,890			6,667	6,667	2,000	12,557
1.5. Maintain rinderpest outbreak emergency preparedness plan & supplies. Receive regular updates on ..	0	23,100	0	23,100		33,333		33,333	11,000	56,433
Total 1	**0**	**41,800**	**191,700**	**233,500**	**0**	**33,333**	**154,667**	**188,000**	**56,400,**	**421,500**
RESULT 2: ESS IS STRENGTHENED										
2.1 Support passive surveillance, particu-larly monthly general disease reporting	0	4,650		4,650			2,000	2,000	600	6,650
2.2 Complete country-wide introduction of ARIS and provide reports regularly to IBAR and OIE	0	8,250	500	8,750			2,500	2,500	750	11,250
2.3 Lobby government to allocate funds	0	0	0	0			1,000	1,000	300	1,000
2.4.Train veterinarians, auxiliaries(including CAHWs) on relevant subjects to maintain ESS	0	1,000	45,600	46,600			4,500	4,500	1,350	51,100
2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services	0	0	11,250	11,250			2,000	2,000	600	13,250
2.6 Provide resources to support ESS	0	5,750	5,700	11,450		73,333	156,667	230,000	69,000	241,450
2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories	0	61,700	4,500	66,200		16,667		16,667	5,000	82,867
2.8 Co-ordinate with neighboring coun-tries on surveillance and trans-boundary disease control through border harmoni-zation- & PACE co-ordination meetings.	0	0	9,600	9,600			11,667	11,667	3,500	21,267
Total 2	**0**	**81,350**	**77,150**	**158,500**	**0**	**90,000**	**180,333**	**270,333**	**84,100**	**428,83**
RESULT 3: CONTROL OF CBPP & OTHER PRIORITY DISEASES IMPROVED										
3.1 Facilitate implementation of control strategy for CBPP	0	10,500	6,000	16,500			16,667	16,667	5,000	33,167
3.2 Develop strategies to control other identified priority diseases	0	5,000	4,000	9,000			166,667	166,667	50,000	175,66
Total 3	**0**	**15,500**	**10,000**	**25,500**	**0**	**0**	**183,333**	**183,333**	**55,000**	**208,83**
RESULT 4: PROJECT IS MANAGED EFFICIENTLY										
4.1 Integrate project management structures to implement ESS in a sustainable way	5,400	1,000	48,578	54,978		15,000	10,000	25,000	7,500	79,978
Total 4	**5,400**	**1,000**	**48,578**	**54,978**	**0**	**15,000**	**10,000**	**25,000**	**7,500**	**79,978**
TOTAL 1 – 4	**5,400**	**139,650**	**327,428**	**472,478**	**0**	**138,333**	**528,333**	**666,667**	**200,000**	**1,139,1**

Notes on the budget

- All budget estimates on lump sums, funds/state, cost/course, cost/ workshop, etc. are based on expenses disbursed during previous WP/CEs.
- Disbursement of funds, including lump sums, are supported by vouchers and documented according to EDF accounting rules; accounting is supervised and controlled by GTZ-IS accounting unit Nairobi.
- Recurrent and running cost for units at AH&EDC Department, vehicles, etc. will be only utilized when GOS funds are deficient in order to ensure smooth continuation of project implementation. The GOS has to increase progressively funding of the PACE activities to fully take over recurrent costs of units and vehicle operation during the implementation of this WP/CE.

1. Rinderpest eradication:
€ 421,500 (= 37% of budget); GoS contribution: € 188,000; EDF funds: € 233,500

1.3. The funds are available for immediate investigation and following-up of stomatitis- enteritis cases when ever they occur. This includes travel allowances for investigation teams (2 vets, 2 technicians, 1 driver) transportation (if needed) and cost for packing, sending and investigation of samples.
1.4.1. Funds will be used for the conduction of at least 12 participatory diseases search (PDS) missions in 'high risk areas'. Each mission lasts for about 10 days; each PDS team consists of 2 vets, 1 technician and 1 driver. All teams will be briefed and supervised by HQ staff. Funds are allocated for transportation, field equipment, allowances and supervision.
1.4.2 – 1.4.3. The project supports the collection and serological investigation of blood samples from non-vaccinated cattle of 314 herds in zone A and zone B. Funds are available for briefing and supervision of field teams, sampling equipment, travel allowances, transportation, sending and testing of approximately 15,000 blood samples at national, and if the necessary, at an international reference laboratory.
1.4.4. The funds will be used for the facilitation of purposive sero-surveillance in areas of Dindir, Pribor and Random where cattle herds had been in contact with wildlife concentrations.
1.5. The funds will be utilized for the procurement of equipment and consumables for sero-sample collection, identification of animals, medicine and emergency preparedness to respond adequately to disease outbreaks that may occur in the country.

2. Epidemio-surveillance system:
€ 428,833 (= 38% of budget); GoS contribution: € 270,333; EDF funds: € 158,500

2.1. The funds support the improvement of passive surveillance network at state level (monthly diseases reporting, and outbreak reporting). This includes funds for improving the communication between states and DMEU in Soba and bonus payments for those states that report adequately and timely. Some funds are allocated for procurement of OIE literature.
2.2. The funds are allocated to complete the country-wide introduction of the PID/ARIS (PACE integrated data base/ animal resources information system) at state level. Funds will be utilized mainly for provision of the required computers and software to the remaining (3) states.
2.3. No EDF fund allocation.
2.4. The funds will be used to conduct up to (13) local training courses for veterinarians and CAHWs on relevant topics of diseases surveillance, diseases diagnosing, reporting and data processing. Furthermore, funds for the participation of (2) veterinarians in regional training activities on the OIE (rinderpest) pathway and disease surveillance are allocated.

2.5. The project will improve the communication and exchange of information on the control important animal diseases between livestock keepers and government veterinary service. Therefore, the funds are allocated to facilitate the conduction of (3) task force meetings of relevant stakeholders at central and state level, and (1) North/ South strategy workshop. Furthermore, funds will be utilized for production and dissemination of communication materials (PACE news letter, leaflets, poster).

2.6. The funds are allocated to support partly the DMEU (Diseases Monitoring & Evaluation Unit) at Soba. This includes limited provision of office supplies & consumables, funds for emergency maintenance (of communication equipment) for about (6) months.

2.7. The funds are allocated for the improvement of diseases diagnosing capacity of (14) veterinary laboratories at state level, the Central Veterinary Research Laboratory in Soba and the rinderpest diagnostic unit at FMAR&F. This includes the contribution to procurement of ELISA- and field test kits for rinderpest disease, laboratory equipment & consumables and for testing of samples in local laboratories.

2.8. The funds are allocated for the conduction of (1) cross border harmonization meetings with neighbouring countries (Ethiopia & Chad) and (2) regional coordination meetings on rinderpest eradication.

3. Control of CBPP and other priority diseases:
€ 208,833 (= 18 % of budget); GoS contribution: € 183,333; EDF funds: € 25,500

3.1. The project facilitates the control of high priority diseases, in particular CBPP. The funds will facilitate the conduction of (1) training workshop and up to (3) task force meetings with relevant experts and decision makers. Funds will be also provided for improvement of diagnostic facilities (ELISA test kits, laboratory equipment, testing of specimen), sample collection and data processing.

3.2. The allocated funds will support the development of national control strategies for FMD, PPR and ECF and other tick-borne diseases. This will be done in collaboration with FAO and steering committees of other on-going diseases control projects (RVF, ECF, PPR) implemented by the FMAR&F.

The majority of GoS funds are preferably allocated to support the production of urgently needed vaccine for the control of priority diseases (CBPP, BQ, HS), to procure essential diagnostic reagents and test kits, to facilitate field mission for collection of specimen and for laboratory testing of samples.

4. Project Management:
€ 79,978 (= 7% of budget); GoS contribution: € 25,000; EDF funds: € 54,978

4.1. The funds are allocated for maintaining the PMU including its staffing [1 secretary, 1 driver], for covering of its recurrent costs, regular conduction of meetings and participation of counterparts (and senior decision makers) in regional PACE events.

Furthermore, few funds are available to facilitate priority activities of the Community-based Animal Health (CAH) Unit, particularly the efforts to strengthen the role of CAHWs and to link them closer to veterinarians.

In order to sustain the established project management structures, the GOS has to take over progressively all recurrent costs to ensure a smooth continuation of rinderpest eradication and disease surveillance activities.

Table 9: Detailed cost estimate of EDF funds for the period 01/11/05 to 31/10/2006

RESULT 1: SUDAN IS RECOGNIZED BY OIE AS FREE OF RINDERPEST									
Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€)			Tota (€)
						person-nel	equip-ment	running cost	
1.1 Make declaration of prov. freedom from RP by December 2004	1.1.1	preparation of OIE declaration	lump sum		0			0	
	Subt. 1.1					**0**	**0**	**0**	
1.2 Apply for country-wide freedom from RP disease by September 2005	1.2.1	task force meetings	lump sum/ meeting	0	0			0	
	1.2.2	preparation of OIE dossier	lump sum		0			0	
	Subt. 1.2					**0**	**0**	**0**	
1.3 Investigate stomatitis-enteritis reports whenever they occur	1.3.1	1-week field investigation missions of state vet., laboratory staff & others	lump sum / state	26	485			12,610	12,6
	1.3.2	1-week field investigation missions of HQ vet. staff	lump sum / month	13	1,150			14,950	14,9
	1.3.3	operational cost (transport, equipment,..)	lump sum / state	26	150			3,900	3,9
	1.3.5	sending & testing of samples	lump sum		1,250			1,250	1,2
	Subt. 1.3					**0**	**0**	**32,710**	**32,7**
1.4.1 Conduct participatory disease searches in high risk areas	1.4.1.1	conduct PDS in high risk areas	lump sum/ state	12	1,350			16,200	16,2
	1.4.1.2	monitoring & supervision of PDS teams	lump sum/ state	12	300			3,600	3,6
	1.4.1.3	operational cost of PDS vehicles	lump sum	12	150			1,800	1,8
	1.4.1.4	field equipment of PDS teams	lump sum/ team	12	100		1,200		1,2
	Subt. 1.4.1					**0**	**1,200**	**21,600**	**22,8**
1.4.2 Conduct 2nd random sample sero-surveillance in zones A1, A2 and A3 to be completed by June 2006	1.4.2.1	2-week field missions of sampling teams	lump sum/ team	20	2,250			45,000	45,0
	1.4.2.2	supervision of sampling teams	lump sum/ state	20	250			5,000	5,0
	1.4.2.3	operational cost of sampling vehicles	lump sum/ vehicle	20	200			4,000	4,0
	1.4.2.4	field equipment of sampling teams	lump sum/ team	20	500		10,000		10,0
	1.4.2.5	sero-surveillance re-fresher training workshops	lump sum/ training	2	8,000			16,000	16,0
	1.4.2.6	in-country samples testing	lump sum		3,000			3,000	3,0
	1.4.2.7	sending & testing of samples at international reference labs	lump sum		1,750			1,750	1,7
	Subt. 1.4.2					**0**	**10,000**	**74,750**	**84,7**
1.4.3 Conduct 1st random sample sero-surveillance in zones A3 and B to be completed by June 2006	1.4.3.1	2-week field missions of sampling teams	lump sum/ team	15	2,250			33,750	33,7
	1.4.3.2	supervision of field teams	lump sum/ state	15	250			3,750	3,7
	1.4.3.3	0perat cost of PACE vehicles	lump sum	15	200			3,000	3,0
	1.4.3.4	field equipment of sampling teams	lump sum/ team	15	500		7,500		7,5
	1.4.3.5	sero-surveillance re-fresher training	lump sum/ meting	1	12,500			12,500	12,5
	1.4.3.6	in-country samples testing	lump sum		2,500			2,500	2,5
	1.4.3.7	samples testing at int. reference labs	lump sum		1,250			1,250	1,2
	Subt. 1.4.3					**0**	**7,500**	**56,750**	**64,2**

Continuation of table 9, Result 1:

RESULT 1: SUDAN IS RECOGNIZED BY OIE AS FREE OF RINDERPEST									
Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€)			Tota (€)
						person-nel	equip-ment	running cost	
1.4.4 Conduct purposive sero-surveillance in cattle in contact with wildlife concentrations	1.4.4.1	Dindir area	lump sum		990			990	99
		Pribor area	lump sum		2,500			2,500	2,5(
		Random area	lump sum		2,000			2,000	2,0(
	1.4.4.2	sample testing at national & int. reference lab.	lump sum		400			400	4(
	Subt. 1.4.4					0	0	5,890	5,8
1.5. Maintain rinderpest outbreak emergency preparedness plan & supplies. Receive regular updates on developments in the Somali ecosystem & respond accordingly	1.5.1	veterinary emergency equipment for (23) states							
		automatic syringes	unit	0	10		0		
		cool boxes	unit	0	100		0		
		GPS devises	unit	10	250		2,500		2,5(
		Medicine	lump sum		5,000		5,000		5,0(
		Consumables (needles, gloves,...)	lump sum/ state	26	200		5,200		5,2(
		clinical examination equipment	lump sum/ state	0	100		0		
	1.5.2	sampling equipment	lump sum/ state	26	100		2,600		2,6(
	1.5.3	animal identification equipment	lump sum/ state	26	300		7,800		7,8(
	1.5.4	outbreak emergency activities	lump sum					0	
	Subt. 1.5					0	23,100	0	23,1(
Total 1						0	41,800	191,700	233,5

RESULT 2: ESS IS STRENGTHENED									
Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€)			Tota (€)
						person-nel	equip-ment	running cost	
2.1 Support passive surveillance, in particular monthly general disease reporting	2.1.1	scheme for timely & accurate diseases reporting	lump sum/ state	26	0			0	
	2.1.2	facilitation data collection in states	lump sum/ state	26	0			0	
	2.1.3	improve communication network	lump sum/ state	26	100		2,600		2,6
	2.1.4	consumables for computers & comm. equipment	lump sum/ state	26	50		1,300		1,3
	2.1.5	provide literature on OIE pathway & major epizootics	lump sum				750		7
	Subt. 2.1					0	4,650	0	4,6
2.2 Complete country-wide introduction of ARIS and provide reports regularly to IBAR and OIE	2.2.2	PID/ ARIS follow-up missions of HQ staff	lump sum/ state	26	0			0	
	2.2.3	ARIS & other software	lump sum				1,500		1,5
	2.2.4	computers & accessories	unit	3	2,250		6,750		6,7
		Consumables for computers	lump sum					500	5
	Subt. 2.2					0	8,250	500	8,7
2.3 Lobby government to allocate funds	2.3.1	sensitize senior decision makers	lump sum					0	
	Subt. 2.3					0	0	0	

Continuation of table 9, Result 2:

RESULT 2: ESS IS STRENGTHENED									
Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€) personnel	Subtotal (€) equipment	Subtotal (€) running cost	Total (€)
2.4.Train veterinarians, auxiliaries(including CAHWs) on relevant subjects to maintain ESS	2.4.1	in-country training on relevant subjects							
		regional awareness workshops for ARIS	lump sum/ course	3	2,500			7,500	7,5
		refresher training on diseases reporting (ARIS)	lump sum/ workshop	2	4,000			8,000	8,0
		training on PDS (2 weeks)	lump sum/ course	1	8,000			8,000	8,0
		training on PE for field vets of mobile vet units	lump sum/ course	1	4,000			4,000	4,0
		training of laboratory staff	lump sum/ course	1	3,600			3,600	3,6
		training of CAHWs	lump sum/ course	2	2,500			5,000	5,0
		training materials					1,000		1,0
		training on epidemiology/ data management	lump sum/ course	1	4,000			4,000	4,0
	2.4.2	Regional training							
		… on disease surveillance (2 weeks, 2 participants)	lump sum/ participant	2	2,750			5,500	5,5
	Subt. 2.4					**0**	**1,000**	**45,600**	**46,6**
2.5 Ensure communication and exchange of information between livestock keepers and government veterinary services	*2.5.*	*support to Commun. Unit*							
	2.5.1	office supplies	lump sum/ month	9	0			0	
		communication (Tel. Fax)	lump sum/ month	9	0			0	
		emergency maintenance	lump sum/ month	9	0			0	
	2.5.2	other office running cost	lump sum/ month	9	0			0	
		production of communications materials	lump sum					5,000	5,0
		video tapes & consumables	lump sum					250	2
		office equipment	lump sum						
	2.5.3	facilitate task force meeting at central & regional level	lump sum/ meeting	5	300			1,500	1,5
	2.5.4	diseases surveillance meetings	lump sum/ meeting	0	1,250			0	
	2.5.5	North/ South workshop	lump sum					4,500	4,5
	Subt. 2.5					**0**	**0**	**11,250**	**11,2**
2.6 Provide resources to support ESS: transport, office equipment and supplies, salaries and incentives for personnel	*2.6.1*	*support to DMEU*							
	2.6.1.1	office supplies	lump sum/ month	6	250			1,500	1,5
	2.6.1.2	communication (tel. e-mail)	lump sum/ month	6	200			1,200	1,2
	2.6.1.3	emergency maintenance	lump sum/ month	6	300			1,800	1,8
	2.6.1.4	other office running cost	lump sum/ month	6	200			1,200	1,2
	2.6.1.5	Equipment							
		communication equipment	lump sum				500		5
	2.6.2	support (26) PACE state offices							
		provide office supplies & consumables	lump sum/ state	26	0			0	
		provide photocopiers	lump sum/ state	3	1,750		5,250		5,2
	2.6.3.	operational costs of (15) new PACE vehicles	lump sum/ vehicle	15	0			0	
	Subt. 2.6					**0**	**5,750**	**5,700**	**11,4**

Continuation of table 9, Result 2:

RESULT 2: ESS IS STRENGTHENED									
Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€)			Tota (€)
						person-nel	equip-ment	running cost	
2.7 Improve laboratory diagnostic capacity at field level and in regional and central laboratories	2.7.1	support to RP ELISA Unit at FMAR&F							
		ELISA test kids	unit	2	8,500		17,000		17,0(
		ELISA & other laboratory equipment	lump sum				4,000		4,0(
		laboratory consumables	lump sum				4,000		4,0(
		testing of samples	lump sum					2,250	2,2
	2.7.2	support to RP lab at CVRL	lump sum						
		ELISA test kids	unit	1	8,500		8,500		8,5(
		ELISA & other equipment	lump sum				4,000		4,0(
		laboratory consumables	lump sum				4,000		4,0(
		testing of samples	lump sum					2,250	2,2
	2.7.3	support to regional (14) laboratories	lump sum/ lab	14	1,200		16,800		16,8(
	2.7.4	provide field test kits	lump sum	2	1,700		3,400		3,4(
	Subt. 2.7					**0**	**61,700**	**4,500**	**66,2(**
2.8 Co-ordinate with neighb. countries on surveillance and trans-boundary disease control through	2.8.1	(1) cross border harmonization meetings	lump sum/ meeting	1	5,000			5,000	5,0(
	2.8.2	regional coordination meetings	lump sum/ meeting	2	2,300			4,600	4,6(
	Subt. 2.8					**0**	**0**	**9,600**	**9,6(**
Total 2						**0**	**81,350**	**77,150**	**158,5**

RESULT 3: CONTROL OF CBPP & OTHER PRIORITY DISEASES IS IMPROVED THROUGHOUT THE COUNTRY									
Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€)			Tota (€)
						person -nel	equip-ment	runnin g cost	
3.1 Facilitate implementation of the control strategy for CBPP in agreement with the recommendations made by the technical consultations of FAO and PACE	3.1.1	facilitate diagnosing of CBPP							
		CBPP ELISA test kits	unit	1	3,000		3,000		3,(
		other diagnostic materials	lump sum				2,500		2,5
		laboratory equipment	lump sum				2,500		2,5
		Consumables	lump sum				2,500		2,5
		facilitate laboratory testing	lump sum		1,000			1,000	1,(
	3.1.2	facilitate task force meetings at central & regional level	lump sum/ meeting	3	500			1,500	1,5
		workshop on CBPP	lump sum	1	2,500			2,500	2,5
	3.1.3	facilitate field investigations & collection of data	lump sum		1,000			1,000	1,(
	Subt. 3.1					**0**	**10,500**	**6,000**	**16,**
3.2 Develop strategies to control other identified priority diseases (FMD, PPR, ECF & other tick-borne diseases)	3.2.1	provide diagnostic reagents & test kits for priority diseases	lump sum	1	5,000		5,000		5,(
	3.2.2	facilitate development of control strategies for priority diseases	lump sum		2,000			2,000	2,(
	3.2.3	facilitate field investigations & collection of data	lump sum		1,000			1,000	1,(
	3.2.4	facilitate laboratory testing	lump sum		1,000			1,000	1,(
	Subt. 3.2					**0**	**5,000**	**4,000**	**9,**
Total 3						**0**	**15,500**	**10,000**	**25,**

RESULT 4: PROJECT MANAGEMENT IS MANAGED EFFICIENTLY

Main activities	Fin. code	sub-activity/ means	Unit	No. of units	Unit cost (€)	Subtotal (€) personnel	Subtotal (€) equipment	Subtotal (€) running cost	Total (€)
4.1 Integrate project management structures to implement ESS & EPP in a sustainable way		secretary (1)	man month	12	300	3,600			3,6(
		driver (1)	man month	12	150	1,800			1,8(
	4.1.2	PMU office equipment	lump sum				1,000		1,0(
	4.1.3	PMU office supplies	lump sum/ month	12	400			4,800	4,8(
	4.1.4	PMU office communication costs	lump sum/ month	12	300			3,600	3,6(
	4.1.5	other PMU office running cost	lump sum/ month	12	150			1,800	1,8(
	4.1.6	committees & task forces							
		Steering Committee	lump sum					4,200	4,2(
		Technical Committee	lump sum					8,000	8,0(
		task forces	lump sum					2,150	2,1!
	4.1.7	development of strategy papers	lump sum					1,500	1,5(
	4.1.8	int. & regional travel (5 events of 1 week, 2 - 3 persons/ event)	lump sum/ person/ event	12	1,750			21,000	21,0(
	4.1.9	support Field Operation Unit	lump sum						
		office equipment	lump sum				0		
		office supplies	lump sum/ month	9	0			0	
		communication: tel., fax, e-mail	lump sum/ month	9	0			0	
		emergency maintenance	lump sum					0	
	4.1.10	CAH Unit							
		office equipment	lump sum				0		
		office supplies	lump sum/ month	9	0			0	
		communication: tel., fax, e-mail	lump sum/ month	9	0			0	
		emergency maintenance	lump sum					0	
	4.1.11	facilitate revision of legislation & linkage of CAHWs	lump sum					1,528	1,5
	Subt. 4.1					5,400	1,000	48,578	54,9
Total 4						**5,400**	**1,000**	**48,578**	**54,9**
Total 1 - 4						**5,400**	**139,650**	**327,428**	**472,4**
Contingencies									
Grand Total						**5,400**	**139,650**	**327,428**	**472,4**

SIGNATURES

PROPOSED BY THE NATIONAL PACE CO-ORDINATOR

Signature: .....

Date: 18/10/2005

دكتور/ بشير طه محمد
DR. BESHIR TAHA
Date 18/10/05 :التاريخ

وزارة الثروة الحيوانية والسمكية
المشروع الافريقي لمكافحة الوبائيات
PACE
Pan African Programme For The Control Of Epizootics
Ministry Of Animal Res. & Fisheries

APPROVED BY THE NATIONAL AUTHORISING OFFICER

Republic Of Sudan
Ministry Of International Cooperation

Signature: .....

Date: 19/10/2005

ENDORSED BY THE DELEGATION OF THE EUROPEAN COMMISSION TO SUDAN

Signature: .....

Date: 20/10/05

DELEGATION OF THE EUROPEAN COMMISSION
SUDAN

SUPPORTIVE DOCUMENTATION

I. ESTIMATE ON BUDGET REMAINING AFTER 31/10/2006

II. IMPLEMENTATION PROCEDURES OF PMU

III. TERMS OF REFERENCE: TECHNICAL ASSISTANCE TO THE PMU IN SUDAN

IV. SERVICE CONTRACT BETWEEN AU/IBAR AND GTZ-IS

I. ESTIMATE ON BUDGET REMAINIG AFTER 31/10/2005

FUNDS RECEIVED		
tranch 1	1,200,000	Euro
tranch 2	19,879	Euro
tranch 3	472,478	Euro
TOTAL RECEIVED	**1,692,357**	**Euro**
FUNDS SPENT		
1. April 2003 - 30. June 2003	99,766	Euro
1. July 2003 - 30. April 2004	394,499	Euro
1. May 2004 - 31. October 2004	364,662	Euro
1. November 2004 - 31. October 2005	360,952	Euro
TOTAL SPENT	**1,219,879**	**Euro**
EDF funds available to 31/10/2006	**472,478**	**Euro**

SUPPORTIVE DOCUMENTATION

II. 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 ofbank 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

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

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.

SUPPORTIVE DOCUMENTATION

III. TERMS OF REFERENCE: THE TECHNICAL ASSISTANCE FOR THE PMU 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.

SUPPORTIVE DOCUMENTATION

IV. SERVICE CONTRACT BETWEEN AU/IBAR AND GTZ-IS

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

-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.

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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

13/12/02

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 13/12/02

Endorsement for financing

Head of the Delegation of the
European Commission in Kenya

Date 20/12/02