

Pre-appraisal mission of the
panafrican rinderpest campaign

PROVISIONAL REPORT

JULY 1996

This present report, financed by the European Development Fund has been made by Mr Jean-François RENARD for the Commission of the European Community.

This report does not express necessarily the opinion of the Commission.

The English version is the translation of the original French edition which remains the reference for any discussion.

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ACRONYMS

BAD	:	Banque Africaine de Développement
CIRAD-EMVT	:	Centre de coopération Internationale en Recherche Agronomique pour le Développement - Elevage et Médecine Vétérinaire Tropicaux.
CTP	:	Conseiller Technique Principal
ECU	:	European Currency Unit (monnaie européenne)
FAC	:	Fonds d'Aide et de Coopération
FAD	:	Fonds Africain de Développement
FAO	:	Food and Agricultural Organisation (organisation pour l'alimentation et l'agriculture).
FCFA	:	Franc de la Communauté Financière Africaine
FED	:	Fonds Européen de Développement
IBAR	:	Bureau Inter-africain des Ressources Animales
IDA	:	International Development Agency
ILRI	:	International Livestock Research Institute
JP15	:	Projet conjoint 15
ODA	:	Overseas Development Agency
OIE	:	Organisation Internationale des Epizooties
ONG	:	Organisation Non Gouvernementale
OUA	:	Organisation de l'Unité Africaine
PANVAC	:	Pan African Veterinary Vaccine Center
PARC	:	Pan African Rinderpest Campaign (projet de campagne panafricaine de vaccination contre la peste bovine).
PB	:	Peste bovine
PIB	:	Produit Intérieur Brut
PIN	:	Programme Indicatif National
PIR	:	Programme Indicatif Régional
PNB	:	Produit National Brut
PNUD	:	Programme des Nations Unies pour le Développement
PPCB	:	Péripleumonie contagieuse bovine.
PPR	:	Peste des petits ruminants
RCA	:	République Centre-Africaine

SIDA	:	Swedish International Development Agency
UC	:	Unité de Coordination
UE	:	Union Européenne
USAID	:	United States Agency for International Development.

FOREWARD

The Pan-african Rinderpest Campaign (PARC) has as its objective the improvement of revenues which the livestock farmers and the African states could expect from the livestock sector. It seeks to achieve this objective through stimulating production by the eradication of rinderpest, the improvement of services provided to the livestock farmers and by co-ordination, on a pan-African scale, of the fight against epizooties.

The programme has been financed since 1986 by the European Union, principally by regional and national programmes of the European Development Fund (EDF). It consists of two parts: one part is support for the Interafrican Bureau of Animal Resources (IBAR) of the Organisation of African Unity (OAU), which is responsible for co-ordination of the programme ; and the other part is a collection of programmes at a national level which have been negotiated on a case by case basis with the different countries. In total 35 countries from West, Central and East Africa have been in or are involved with the programme (Annex 1). For the moment 13 national programmes are in progress (Annex 5.7) and 10 others are ready or are being prepared.

The Co-ordination Unit (CU) for the project is based at Nairobi at the headquarters of IBAR/OAU. It relies on two regional sub-offices at Bamako and Nairobi. The financing of the CU should, according to the terms of the current agreements, end in June 1977.

The programme has given rise to various funding agreements, as much vis a vis OAU/IBAR as for the different countries. Certain countries are however still in the preparation stage of their first phase while other are already running their third. The funding and consequently the concerns of the CU have been running since the 4th and 5th EDF (the 6th was postponed) up to the 7th ; they are governed by LOME Conventions II and III (24 national components) and LOME IV (11 national components). The totality of PARC represents funding aid from the EU, which is continuous and difficult to divide up, with convention commitments of more than 109 million ECU from various funds (principally EDF, but also ECHO, Egypt). Other fund providers (UNDP, FAO, Japan, USAID) and including certain EU member states (France, Great Britain, Italy, Belgium) have or still are working towards the same objectives through the CU or one or other of the PARC national components.

The only evaluation of these was done in 1990 for the part financed by EDF. A new in-depth evaluation is planned for 1996.

The present 'pre-evaluation mission' had as its role the analysis of the general concept of the programme, to identify the needs, and to propose terms of reference for the evaluation of national components before doing it. It was asked to concentrate on (Annex 2).

- the global approach of the programme and the complementarity between the regional and national components ;
- the epidemiological framework for rinderpest ;
- the role of the programme for the development of the overall livestock sector ;
- the co-ordination function of the OAU/IBAR and the sub-regional structures.

The mission was led by Mr J-F RENARD, who was joined from Kenya onwards by Doctor P. BLANC. It began in late May 1996 with an analysis of available documents and meetings with those responsible for the programme at DG VIII in Brussels. This was followed, on 3-7 June 1996, by participating in the annual meeting for national co-ordinators of West Africa and Central Africa as a prelude to studying the national components in, successively, Senegal, Mali, Chad, Kenya and Ethiopia. The mission worked for a week in Nairobi and Bamako with those responsible for the programme's co-ordination. This was followed by a short visit to Zimbabwe in order to compare the PARC methods and organisation with those followed by other regional animal health programmes in force in southern Africa. On 17 July the mission handed over to DG VIII/C/3 an "aide-memoire" summarising its observations and the outline of their recommendations which had been discussed on this occasion. (Annex 4 : mission calendar).

In view of the shortness of the visit to each country the mission gathered, for each country, as much documentation and information on key points as possible. This included the use of a questionnaire sent out ahead. A summary of the documents and information received for the countries visited is shown in Annexes 5.2 and 5.6. The time spent in the countries concerned was concentrated on meetings which enabled the mission to gather the opinions and impressions of the different people involved in the running of the programme (Annex 3). There was no prospect of having time to conduct detailed investigations in the field.

The mission members would like to express their gratitude to the large number of people who helped to make this mission possible by their friendly co-operation and understanding.

1. SUMMARY

1.1. Conception and preparation of the project

Rinderpest is a contagious viral disease of large ruminants, both domestic and wild, which is frequently fatal. No curative treatment exists but prophylaxis based on vaccination and quarantine allows it to be controlled and then eradicated.

A campaign of vaccination before 1976 considerably reduced its incidence in Africa. However, the disease remained endemic in East Africa and showed epizootic resurgences in West Africa at the end of the 1970s. The idea of **eradicating the disease** by a co-ordinated pan-African campaign was born at the beginning of the 1980s.

The PARC programme was conceived with this specific objective as well as the **improvement of the services provided to the livestock farmers** and the **pan-African co-ordination of animal healthcare**. Since 1986 it has been financed by the European Union (EU) and consists of two parts : the first part is support to the co-ordination by the Organisation of African Unity (OAU) through its specialist organisation, IBAR ; the second part is a group of national components which have been negotiated on a case by case basis with the different countries.

The Co-ordination Unit (CU) is based at Nairobi at the headquarters of IBAR. It is responsible for the co-ordination of the group of components and for tasks of common interest whose need has been identified either in the course of operations or by the only global evaluation of the programme to date, in 1990.

In total 35 countries have been involved during the different phases of the programme and 13 national components are still running. Beside the **organisation of mass vaccination programmes** and the means which are linked to it, the programme is clearly conceived as a **tool for policy reform**, seeking to have implemented by the various Governments measures which will ensure a better financial foundation for the services provided to livestock farmers. To prepare and follow up these national components the CU systematically practices a **dialogue** approach with the countries, based on their **previous political commitment** obtained within the framework of the OAU and complemented by sub-regional **annual information sharing meetings**.

This method is adapted to the conditions of traditional livestock rearing and the diversity of
A Since However, it induces large delays in preparation and a stepping of the timing of

operations which is sometimes unfavourable to the overall coherence. It makes possible a competent level of technical cover, but can lead to taking account of concerns which are sometimes way outside the specific objectives of the project or other EDF programmes.

1.2. The relevance of the project

The 3 specific objectives mentioned above all seem pertinent in view of the global objective of **the improvement of revenues earned from the sector by the livestock farmers and the Governments**, itself considered a sound objective. Their progressive change towards taking account of **other epizooties** and the notion of **disease control** is also appropriate.

1.3. Efficiency

The **regional funds (PIR) have been 92.4 million ECU**, allocated in four large stages: 50 million ECU in 1986, 7.5 in 1990, 10.4 in 1993 and 25.0 in 1995. Of this 78.6 million ECU (85.1 %) were used for intervention in the countries, 4.3 million (4.6 %) for co-ordination, and 9.3 % (10.1 %) for the common services.

With effect from 1993, the various activities systematically involve National Indicative Programme funds (NIP, for 13.1 million) ; other EU funding was also involved. The total community aid over 10 years was a minimum of 109.7 million ECU. A close collaboration exists with the other fund providers involved in the sector.

The project is beginning to only now take into consideration any economic evaluation and no cost-benefit analysis is yet possible.

Despite operating in a manner which is globally satisfactory the **staggering in timing** or the **breaks in financing** of the different activities at the CU level have damaged the coherence of its technical organisation. Moreover, the **standardisation of statistics and the systemisation of reporting is faulty** and hinders detailed comparative analyses.

The financial follow-up functions has functioned well since 1993, but a consolidation of the previous period should be done at the headquarters (DG VIII). Moreover a clearer division between RIP and NIP would allow for better involvement by the individual countries.

At the CU level, its **activities** are concerned with technical assistance for animal health, epidemiological follow-up, the control of vaccine quality, research, economic evaluation, and support for communication. In the national components they are concerned with the fight

specific “funds”), privatisation of veterinary medicine, communication and sundry activities such as fodder crops and wells. In general **they are run effectively** except perhaps for the ‘sundry activities’, for which the programme has neither a real vocation nor the technical skills, and the reform of the services, which suffers from the inertia of administrations faced with the constraints of the changes being advocated. Privatisation is slower than planned because of the changes in regulations and mentality which it implies; sometimes it also strays from its objective of improving the services to livestock farmers.

1.4. Effectiveness

At the level of IBAR the **co-ordination of national policies on animal healthcare and funding** of them is satisfactory. Important progress have been achieved in the co-ordination of the fight against disease (diagnostic laboratories, training) ; but important gaps remain in terms of co-ordinating information. Moreover, the CU no longer has available the financial capabilities to respond to an emergency situation at the time when several countries are being encouraged to stop rinderpest vaccination.

At the country level, **the programme has largely reduced the incidence of rinderpest** on the continent and particularly in the endemic zones. But the widening of the war zones, the relationships of certain countries with the EU, the insufficient controls in others and the emergence of less virulent strains has allowed a **worrying enlargement of the contaminated area** compared to 1990 (5 countries instead of 2).

The implementing of national systems of epidemio-surveillance is in progress but few are yet functioning in a satisfactory manner.

The rationalisation of the public livestock services is hardly encouraging in terms of reducing costs or personnel and the financial viability of the public services.

The efficiency of the private sector in comparison with the public sector has been demonstrated by the programme in terms of the quality of the services to livestock farmers and their cost to the community. **The liberalisation and privatisation of veterinary medicine now seems irreversible**, principally due to PARC. The effect on the livestock farmers has yet to be analysed.

PARC has not led to any significant improvement in the management of natural resources.

1.5. Effects

The improvement of animal healthcare, the disappearance of the disease from West and Central Africa, the improvement in livestock policies and, where they are effective, the services to livestock farmers have probably had a very positive effect on the revenues which the farmers and the State derive from livestock. Thus PARC has so far obtained **significant results**.

1.6. Economic and financial analysis

The absence of any prior analysis, either global or of the national components, and current monitoring which is essentially technical does not make possible an economic and financial evaluation for justifying the project.

1.7. Viability

The PARC scheme has made it possible to obtain the **support of national policies**; but, aside from the regulatory measures, their application and control are sometimes difficult. On the other hand the cessation of PARC activities in a country, even momentarily, for political reasons or because of civil unrest is sometimes enough to put at risk the viability of work in other countries.

The project integrates perfectly with the socio-cultural habits of the target populations. In light of the development of livestock practice over 15 years, **it does not seem to represent a risk to the environment** ; on the contrary, there is no doubt that it constitutes an essential framework for the intensification of production, and even on its own can be an effective response to the future environmental challenges.

The eradication of rinderpest and the surveillance of animal healthcare are long, **drawn out operations which must be continued to their proper conclusion to avoid losing the previous gains**. They also represent the best guarantee of ensuring the integration of Africa's livestock development into the world economy. Lacking their own resources, principally because of the state of world markets, they will still need outside funding for several years.

1.8. Recommendations

1.8.1. Rinderpest

The fight must be continued, principally in East Africa, until eradication has

- the improvement of knowledge about the situation in the endemic zone ;
- detailed evaluation of the efficiency of the services in this zone ;
- the continuation of mass vaccination in a *cordon sanitaire* which is larger and takes into account the new zones at risk ;
- the continuation of action in all the countries of the endemic zone ;
- continuing research, particularly into less virulent strains and the role of wildlife across the whole of the risk zone.

1.8.2. Animal healthcare

It should remain, on a wider basis, the principal objective of the project. The following action is recommended :

- strengthen and complement the national health monitoring networks, extending them to other diseases than rinderpest ;
- set up a strengthened epidemiosurveillance support capability for West Africa;
- improve the reporting and, standardising information systems, and centralising it at the IBAR level;
- ensure closer co-ordination with other regional animal health programmes and with southern Africa.

1.8.3. The public services

Rather than focusing on the politics of their funding, in the future PARC should insist more on the necessary concentration of the services' resources on only certain of their present tasks, particularly health monitoring, and on public funding more related to the sector's place in the national economy.

It should also calculate the economic and financial effect of the policies at the level of the individual livestock farmers and the profitability of private investments both in the current sector and as it becomes intensified.

1.8.4. Privatisation of the services

The activities should be re-focused within a framework based on entrepreneurialism and not just seen as a substitute for public funding.

They should also be assessed uniquely from the perspective of the aim of providing a better service to livestock farmers.

Bearing in mind that liberalisation and privatisation are political orientations which have already been achieved, it would be more appropriate to support them via national funding (NIP) in order to take account of particular national conditions and to involve the Governments more.

1.8.5. Organisation of the programme

The Co-ordination Unit being located within IBAR, the sub-regional units and PARC's method of working with the countries should be maintained until the achievement of the long term objectives of the eradication of rinderpest and a satisfactory level of epidemio-surveillance on a continental scale.

The mission recommends that the activities should be concentrated exclusively on those fields which have a real need of regional co-ordination, particularly animal healthcare, also be enlarged to include other pathologies than rinderpest, and the co-ordination of national policies.

In view of the delays in preparation and implementation, an alternative funding of 18 to 24 months should be sought for the CU. Moreover the mission recommends that the EU continue the funding of this programme, because no alternative solution to eternal funding seems likely in the short term.

An "emergency fund" should be rapidly created and managed jointly by the CU and the EU representatives.

The CU should have the possibility of sub-contracting directly to other operators the actions necessary in certain countries : it would benefit from at last having more direct and continuous management of its own components.

1.8.6. Management and follow-up of the programme

The widening of responsibility leads to the recommendation of the creation of a technical "Steering Committee", charged with the responsibility of regularly examining the direction of the programme which the CU is implementing. This committee should be widened to other fund providers contributing to animal health on a regional scale.

The CU should also design and systematically apply a programming protocol and take account of the activities in associated countries, whether or not they are targeted by a current component, as well as working with the "Steering Committee"

Rather than global evaluations, which can be very resource-consuming, the "Steering Committee" should have at its disposal a framework agreement which authorises it to commission short appraisal studies done externally. They could cover any aspect, according to the progress of the project.

In the immediate future it would seem important to evaluate in a very precise manner the status of rinderpest and the services for fighting against it in the areas suspected of still being endemic.

2. PREPARATION AND DESIGN OF THE PROJECT

2.1. Identification and design

2.1.1. The origins of the PARC programme

The concept of a co-ordinated campaign against rinderpest at a pan-African level took shape at the beginning of the 1980s during various meetings and seminars organised by the EU and its partners (OIE, FAO) and attended by those responsible for livestock in Africa. The principle of such a campaign had already been decided on, separately, by the OAU as early as 1981.

It should be remembered that rinderpest, a viral disease of ungulates and particularly ruminants, is recognised as a scourge by all livestock professionals. It was introduced into Africa at the end of the last century, when it is said to have eliminated 90 % of the continent's cattle and wild ruminants. Although it had disappeared from southern Africa by the end of the century, it remained endemic in West, Central and East Africa.

Previous efforts to control the disease, and particularly Joint Project No 15 (JP15), undertaken between 1962 and 1967, significantly reduced the incidence of the disease. However, it was not able to prevent either the continued existence of endemic zones in East Africa or the epizootic resurgence of the disease in west Africa from the end of the 1970s. The emergency vaccination campaigns organised in different countries during 1978-1985 should have made it possible to arrest the spread of the disease. But it had become evident that only a campaign co-ordinated at a regional level could make it possible to establish effective control of rinderpest and even give some hope of eradicating it.

Annex 5.1 sets out in more detail the disease and the successive strategies adopted to fight it.

2.1.2. Project definition

An initial financing project for a pan-African rinderpest campaign (the PARC project) was finally approved by the EU and an agreement signed between the EU and the OAU on 3rd July 1986 for a total of 50 million ECU through an EDF regional programme (RIP). It was followed up by regional funding (RIP) of two other global financing proposals in 1990 and 1995 as well as 3 proposals in 1993 relating to supplementary components. The global agreements were supplemented by other agreements which were specific to the different countries for the national components which they were running. From 1993 onwards, the

agreements provided for these same national components to have recourse to regional funds and funds for EDF's national indicative programmes (NIP), so that the countries would become more involved.

In parallel with the fight against rinderpest the programme was designed to “support, through a dialogue with the countries concerned, the defining and implementation of policies better suited to contributing to stimulating production, the improved running of the livestock services and better control of the risks of desertification”.

Even if the objectives remained the same between 1986 and 1995, the means of achieving them evolved significantly between these dates. The first agreement indicates that the principal objectives were the setting up of the rinderpest campaign with the intention of eradicating the disease and, through this campaign, the encouragement of livestock policies appropriate to stimulating production.

With effect from 1990 clearly there was a wish to increase the financial autonomy of both the livestock and veterinary services by means of a better coverage of the costs and increased shift of many activities of the public livestock service to the private sector. It is considered that the return of the disease after JP15 was due to the lack of efficiency of the national livestock services as a result of their underfunding. The last global agreement (1995) emphasises optimal control of the disease where it persists, while at the same time maintaining the objective of eradication and the launch of procedures aimed at declaring the country free of the disease. The objective is moreover matched with the necessity to introduce reforms of policies and structures in order to enable these services to benefit more directly from the sector's own resources and to ensure their viability through to completion. Finally, this last agreement explicitly mentions the fight against other epizooties even if the specific actions of this fight are not defined ; contagious bovine pleuropneumonia (CBPP) and PPR.

2.1.3. Preparation and components of the programme

The programme which was defined in 1986 and consisted of six principal components, all essentially focused on the control of rinderpest :

- technical assistance to IBAR ;
- establishment of vaccine banks ;
- immediate action in the areas where rinderpest was at that time endemic ;
- programmes of research ;
- a reserve fund (3 million ECU) for possible emergency action ;

- direct action (25 million ECU) in the countries not covered by the activities mentioned above.

In addition, there was provision for a contingency of 5 million ECU. This brought up to a total of 38 million ECU (76 % of the agreed funding), together with the emergency reserve and the bilateral direct actions not otherwise specified, the funds available for action not identified in advance. This availability allowed for valuable subsequent flexibility, in particular for the financing of IBAR and technical assistance in the intermediate phase. Similarly, it put the projects management team in a position of strength, particularly during individual negotiations with the different countries. Unlike a usual project, it became essentially a question of the choice of a policy for developing a sector, a policy whose implementation method had not yet been, in large part, studied in detail.

A) The Co-ordination Unit

The 1986 convention concentrated IBAR's co-ordination role on the complementarity and the coherence of the fight against rinderpest. The 1995 agreement, on the other hand, enlarged its role in terms of economic support, epidemiology, communication and the production of vaccines and defined more clearly the CU's technical support role. The CU currently has the various means necessary for its objectives, based on its previous experience or following the recommendations of the evaluation made in 1990.

In particular, the CU is at last equipped for making economic evaluations. It is a pity that, as for the global programme, the preparation of the national components (and their follow up) was not done there rather than being based on economic analyses which were merely summary, if not non-existent.

The choice of the OAU as the headquarters of the CU would seem to be opportune because of the political support required by the "PARC method" described below. IBAR is the organisation which has effectively been given the mandate by the OAU for the purposes of the programme.

B) The national components

These activities were to be defined on the basis of a dialogue between the projects co-ordination team and those responsible at a national level in the different countries. This dialogue would cover the political measures to be taken on order to ensure the best financial basis for the livestock services and to avoid the risks of desertification. This dialogue relied on common political decisions taken at the highest level at the time of the meetings held by

the OAU ministers responsible for livestock. This seeking dialogue and political involvement of the African states has been supplemented by annual briefing meetings of the national representatives of the project during which it was possible to exchange experiences. These three procedures constitute the basis of the "PARC method" of preparing the project's national components. This method is still being used.

The advantages of the method are undeniable for ensuring the effective commitment of the countries to the regional financing objectives, as separate from their individual needs. Moreover, it makes it possible to improve the common purpose and co-ordination at a sub-regional level which is essential for animal health because of the movement of cattle linked to transhumance and commercial activity.

Lastly, and most importantly, the convergence of livestock policies which has thus been created across 35 countries makes it easier to take into account the realities of traditional cattle owners who are often still nomadic and for whom political frontiers constitute no limit to their activities.

At a more localised level, as much for the local nationals as for the EU delegations, the method permits an exchange of information and decision-making which is often felt to be consensual. The frequent visit of the CU technicians in the course of the preparatory process is, what is more, perceived, particularly amongst the Delegations, as providing an efficient and reassuring coverage. Amongst the inconvenient aspects of this method should be highlighted the slowness of the process of preparing the national projects, to which should be added that of the decision-making procedures of financing by the EU : the national components need a minimum of 3-4 years from the start of their preparation to the point of realisation. It should also be noted that sometimes there is, at the level of the Delegations in particular, a certain lack of involvement in those regional programmes which have been conceived and discussed by outsiders. This can create insufficient coherence, even contradictions, with certain national indicative programme (NIP)^{1,2} projects. Finally, and above all, the dialogue leads naturally to taking into account the varying national preoccupations ; certain national programmes vary according to different components (wells, the cultivation of forage - Annex 5.7) or radically different methods of tackling a similar problem (privatisation of veterinary medicine). This flexibility can be considerable but can sometimes be comparably dangerous to the coherence of the overall plan. In some cases it

¹ In Central Africa for example, the EU participates on a NIP basis to a sectorial programme which starts from the observation that there is a serious and growing impoverishment of the livestock farmers ; one could therefore ask the question whether there is indeed an opportunity to recover the costs of vaccinations, which PARC, in its turn wants to introduce simultaneously, even if it contributes in only a small way to this impoverishment.

² In Burkina Faso PARC was prepared independently of a livestock sector support programme with NIP

involves drifting into areas for which the programme has neither a particular ability nor adequate human resources in the co-ordination and follow-up team.

In the course of preparatory discussions for the national components, the CU seems to have constantly taken account of the participation of other funders and their interests in the sector's policies (IDA, FAC, FAO). This close contact with other external sources of finance has given more weight to steps to define the sector's policies which have been sought under the "PARC method".

PARC was thus led to take over from or work in synergy with other projects (See the example of Chad, Annex 5.4). This convergence complicates, however, the continuous evaluation of the results specific to the project.

It should also be noted that for decisions about livestock policy PARC limits itself to asking for declarations of intention, in contrast to other funders (IDA for example) who sometimes impose conditions to their financing. This approach, admittedly, makes for a more calm and continuous dialogue but can lead to disregard for the agreements (for example, "the livestock fund in Mali and Senegal", Annexes 5.2 and 5.3), the blocking of certain activities (for example the privatisation component in Kenya Annex 5.5) and indeed, even to making some components unrealisable (the privatisation component in Ethiopia Annex 5.6).

2.2. The coherence and realism of the project design

The PARC programme was conceived and set-up before the adoption by the European Union of the system of project management based on the logical framework method. Such a logical framework can however be reconstituted, on the basis of documents from the Co-ordination Unit, which has been forced in recent years to integrate the system's demands in its follow-up activities. Based on this work and the different agreements, the mission reconstructed the framework below, which seemed to them to summarise the characteristic principles of the PARC programme which will serve as a basis for analysis.

The double approach used across a programme of regional co-operation and several national programmes and built up on a dialogue with the countries seemed to be well adapted to the disparity of local conditions which are characteristic of a problem of regional dimension such as animal health.

The staggered timing of the different national components as well as the evolution of relations between the EU and certain states (Zaire, Sudan, Nigeria) upset the coherence, at a regional level, of the programme's implementation. This is particularly important in terms of epidemiology and the strategy of combating rinderpest. As is shown in Annex 5.1, these

restrictions are at the root of serious gaps in the *cordons sanitaires* which are already in place and of some of the delays in achieving eradication. The project's problems in some countries could, moreover, jeopardise the positive results obtained in others.

<p><u>GLOBAL OBJECTIVES</u></p>	<p>Increased livestock farmers income and states income by increased livestock productivity.</p>
<p><u>SPECIFIC OBJECTIVES</u></p>	<ol style="list-style-type: none"> 1. Eradication of rinderpest from the African continent and animal health improvement. 2. Improved services to livestock farmers. 3. Improved Pan-African coordination for livestock development and animal health in particular (fight against epizootic diseases, evolution of animal health policies and privatization of the veterinary services).
<p><u>RESULTS</u></p>	<p>A. <u>At OUA/IBAR level</u></p> <ol style="list-style-type: none"> 1. Effective and lasting coordination of the fight against animal diseases ; 2. Setting up of a reaction force to cope with emergency situations in terms of animal health (emergency funds) ; 3. Coherent policies for animal health for the whole continent ; 4. Coordination of the African livestock sector's funding sources. <p>B. <u>At country level</u></p> <ol style="list-style-type: none"> 1. Eradication of rinderpest ; 2. Creation of regular monitoring systems for animal diseases ; 3. Rationalization of the livestock public services ; 4. Private sector development for services and supplies to farmers ; 5. Improvement of the natural resources management.

ACTIVITIES

A. At OUA/IBAR level

1. Creation of a permanent service to provide technical assistance to participant countries ;
2. Set up of a central unit for epidemiological monitoring ;
3. Keeping vaccine banks ;
4. Permanent and independant control of vaccine quality ;
5. Research programmes implementation to improve means of combatting animal disease ;
6. Creation of a service to evaluate economically and financially :
 - the incidence of animal diseases
 - control programmes.

B. At country level

1. Implementation of vaccination campaigns according to each country's priorities ;
2. Reinforcement of the livestock services and particularly development of systems for disease monitoring and surveillance and systems to control services offered to farmers ;
3. Setting up of credit systems for livestock services using the sector's own resources ;
4. Creation of an institutional and statutory framework to favour the liberalization of services offered to farmers ;
5. Setting up of finance systems for the privatization of services to farmers ;
6. Support in structuring professional farmers' associations ;
7. Support for better rangeland management techniques ;
8. Communication improvement between the actors involved and the countries ;
9. Marketing back up.

3. THE RELEVANCE OF THE PROJECT

3.1. The global objective

The improvement of the livestock farmers' revenues and their living conditions as well as the revenues to the State are derived from the improvement in productivity of the herds. For the owners, these revenues are generally very low compared to the social and physical restrictions which are involved in this sort of business under traditional conditions (fragile habitat necessitating trans-humance and nomadism, children and female labour, arduous working conditions). The very low levels of productivity observed, due particularly to the serious pathological pressures, are justification alone of this objective.

At the Government level, livestock is often an important component of GNP and sometimes a key source of exports. An added factor is that these countries are confronting strong demographic growth and increased pressure on the land. They are, therefore, obliged to increase production, based on improving and intensifying livestock productivity.

Preservation of the environment and more specifically the struggle against desertification, is linked to the increase in productivity and intensification of rearing as well as more rational commercialisation.

These measures will guarantee the resulting revenues to all the players without the necessity to increase the herds.

In this context, a project such as PARC, which focuses on improving the productivity of livestock and to creating a health structure which allows for the intensification of production, would seem to be entirely pertinent.

The different Governments are now, at the political level, moving in this direction. This has happened, first of all, at the OAU where they have mandated IBAR to this effect, and subsequently, on an individual basis through the method of dialogue which focuses on obtaining commitment to the recommended policies of the programme before any intervention.

Other funders, in particular the World Bank and France, have been working towards the same end.

Generally speaking, the different funders get involved in the sector at the structural level and in the area of the organisation of professionals. By its activities on the health framework and co-ordination PARC seems therefore to be a particularly opportune complement.

3.2. The specific objectives

3.2.1. Rinderpest and animal health

The eradication of rinderpest from the African continent is seen to be indispensable and particularly timely. The persistence of endemic areas in East Africa and the epizootic resurgence of the disease in various parts of the continent at the end of the 1970s and the beginning of the 1980s, together with the rapid decline in the efficiency and motivation of the animal health services in the majority of countries, would fully justify the importance given to this objective.

The technical feasibility of the programme and the very significant progress which has been made since it started, attests to the realism of this objective. The existence of a reliable vaccine, of effective serological diagnostic techniques and an understanding of the way the disease spreads, allow one to think of it as a reasonable strategy for control and eradication on a continental scale.

From an economic point of view, the data which have been sometimes put forward have not been the result of convincing evaluations. It should be admitted, however, that taken together the serious losses that have been recorded, the risks of the disease spreading to countries that are free from it, the effect of commercial restrictions and the high recurrent cost of the necessary control measures, are probably acceptable factors for explaining the difference between the objective and the situation as observed.

There is no question that the incidence of the disease would currently be less in a herd which has been largely vaccinated. But, without the definitive eradication of the disease from the continent, a return to the previous situation and a loss of all the efforts which have been agreed to becomes possible, not to say probable : the objective of eradication, therefore, remains pertinent.

Finally, one must take into account the fact that the fight against rinderpest as a principal or secondary objective of **animal health protection activities** has often been shown to be as motivating a factor for the public services as it has become recently for private veterinarians. The systems of monitoring and of serosurveillance of the disease set up in certain countries are, what is more, suitable as an example and a skeleton for the setting-up of a national or regional network of epidemiological surveillance for the other animal pathologies. The objective of the eradication of rinderpest thus remains in line with the development of the situation on the ground and its validity has been reinforced by the broader direction which has been given to the programme in the last few years.

This development, which has been noted in the most recent agreements, towards an epidemio-surveillance objective not limited to rinderpest, responds well to the needs of countries freed from the burden of rinderpest and naturally preoccupied by other pathologies. In addition, the worrying progression in the course of the last few years of contagious bovine pleuropneumonia (CBPP) risks being accelerated by the stopping of anti-rinderpest vaccination campaigns. The vaccinations were often done together, through a bivalent vaccine, and the campaigns were also the occasion to intervene with preventative measures against other pathologies. The stopping of the campaigns has made it necessary to set up, urgently, monitoring systems which take into account the other existing pathology risks.

3.2.2. Services to livestock farmers

The **improvement in animal health services to livestock farmers** is also adequate in view of the realities of life in the majority of the participating countries. In general, the share of public investment in the sector remains largely inferior to the sector's place in the national economy.

The reduction of budgets for the public services in real terms, leading to the quasi disappearance of their operating resources, had profoundly affected the motivation and the professionalism of their personnel. Some compensation for the short-comings of the services was essential from the point of view of the continuing global objective of the improvement of productivity. Consequently, it was clear that dialogue with the countries relating to their national activities (the source of equipment and resources in the short-term for these services) logically became an ideal means of dealing with their reorganisation and the reform of the livestock policies. These changes are in practice often restrictive from a political point of view, take a long to negotiate and ratify, sensitive from the social point of view, and necessitate the setting-up of a coherent judicial and institutional framework.

3.2.3. Pan-African co-ordination

The definition of the objective of **improvement of Pan-African livestock co-ordination** has undergone over the years a fortunate conceptual change from the notion of "control" of the disease (1986) to that of "monitoring" (1995). From then onwards the accent was placed on the need for surveillance, without which the control activities remain incomplete and their effects uncertain. Since the 1995 agreement the role of the PARC Co-ordination Unit, apart from the fight against rinderpest which must still be continued to the every end, covers the epidemio-surveillance and the promotion of specific measures to combat other diseases.

Taking into account the movements of herds in the traditional rearing systems, it is clear that epidemic surveillance should have a supra national dimension in order to be effective. In

addition, to limit the control to a single disease such as rinderpest, which one hopes will disappear in several countries, would rapidly be demotivating for the services concerned. Pan-African co-ordination of general health monitoring would thus appear particularly pertinent. Other factors in the development of the sector have a similar supra-national, sub-regional or even continental dimension. This applies in particular to monitoring the commercial flows and to global commercial negotiations (for example, with the EU or the United States on the subsidies for their exports). A structure for co-ordinating certain research, such as that for CBPP, seems justified in order to avoid duplication.

On the other hand, it is difficult to see any interest in co-ordination on this scale for activities which directly support production. The ecological, genetic and socio-economic conditions lead to production systems or opportunities for intensification and commercialisation which vary a great deal. This type of activity could well come within the national or even local domain. They are very often the province of private initiatives. Moreover, it is difficult to see any interest in the eventual creation, as is sometimes suggested, of a “pool of expertise” in these areas at the level of IBAR while numerous authorities are already established elsewhere. At the very most, one could envisage the improvement in the circulation of technical information, which would attract more national interest than a programme of pan-African co-ordination.

The convergence of policies on privatisation is also essential, both for the livestock farmers and for the practitioners. But, apart from political decisions, the setting up of such measures would have to happen in widely varying situations. These situations vary between, for example, the “high potential” areas of Kenya and the sahel of Chad (Annexes 5.5 and 5.4) or between very different conditions in terms of fiscal framework or the capacity to control. Implementing privatisation would get only limited benefit from pan-African co-ordination. In contrast the exchange of information on the methods and results obtained elsewhere is of great interest for the operators, particularly if you take account of the still novel character of these changes.

The pan-African co-ordination should, therefore, concentrate on those activities in which it can provide some reciprocal interest for the member Governments

4. EFFICIENCY

4.1. Resources and costs

Several accounts still need to be consolidated (see § 4.2). However if you take into account the diversity of the components and of specific objectives from one country to another, qualitative results such as policies, and the synergy between the national components of the programme and other projects it becomes impossible to make a cost-efficiency analysis broken out across the whole of the Community's aid programme.

Based on the programme's annual reports and the regional funding agreements, the mission has created the table on the following page. This estimates the Community's aid at not less than 109.7 million ECU, of which 92.4 million (84 %) are RIP regional funds, 13.1 million (12 %) are national programmes (NIP) linked to preceding ones and at least 4.2 million are other types (counterpart and compensation funds).

The regional funds were allocated in 4 important stages : 50 million ECU in 1986, 7.5 million in 1990, 10.4 million in 1993, and 25 million in 1994. Summarised, one can split the commitments between 78.6 million for involvement at country level (85.1 %), 4.3 million (4.6%) for co-ordination and associated technical assistance and 9,3 million (10.1 %) for other common services (research, vaccine control, epidemiology, communication)³.

The other funds have all been used directly in the countries.

³ Using the same sources, complemented by the CU secondary commitments such as those managed by

AGREED COMMITMENTS : AMOUNTS

AGREEMENTS	EX 5 ACP RPR 317 RPR205 (4)	EX 5 ACP RPR 917 RPR246	VARIOUS(2)	PIR1993 (3)	PIN1993 (3)	RPR375	P.I.N./RPR 375	TOTAL
<u>IMMEDIATE ACTIONS</u>								
- BURKINA	1,358	-	-	-	-	-	-	1,35
- ETHIOPIA	4,512	-	-	-	-	-	-	4,51
- MALI	1,8191	-	-	-	-	-	-	1,819
- NIGERIA	1,917	-	-	-	-	-	-	1,91
- SUDAN	3,575	-	-	-	-	-	-	3,57
SUB-TOTAL	13,1811	0	0	0	0	0	0	13,181
<u>EMERGENCY OPERATIONS</u>								
- KENYA	0,695	-	-	-	-	-	-	0,69
- UGANDA	0,572	-	0,205	-	-	-	-	0,77
- TANZANIA	0,19	-	-	-	-	-	-	0,1
- TOGO	0,09	-	-	-	-	-	-	0,0
- ERYTHREA	0,15	-	-	-	-	-	-	0,1
SUB-TOTAL	1,697	0	0,205	0	0	0	0	1,90
<u>BILATERAL OPERATIONS:</u>								
- BENIN	-	0,6	-	-	-	-	-	0
- BURKINA FASO	-	0,35	-	-	-	2,6	1,3	4,2
- BURUNDI	0,6	-	-	-	-	-	-	0
- CAMEROON	1,8	-	-	-	-	-	-	1
- CENTRAL AFRICA	-	-	0,2	-	-	1,2	0,6	-
- IVORY COAST	2,1	-	-	2	1	-	-	5
- DJIBOUTI	0,7	-	-	-	-	-	-	0
- EGYPT	-	-	2,7	-	-	-	-	2
- ERYTHREA	-	-	-	-	-	-	-	-
- ETHIOPIA	4,3	-	-	6	3	-	-	13
- GABON	-	0,8	-	-	-	-	-	0
- GAMBIA	1	-	-	-	-	-	-	-
- GHANA	-	1,6	-	-	-	-	-	1
- GUINEA-BISSAU	-	0,7	-	-	-	-	-	0
- GUINEA-CONAKRY	-	-	0,323	-	-	4,1	-	4,42
- KENYA	2,4	-	-	-	-	-	-	2
- LIBERIA	-	0,75	-	-	-	-	-	0,7
- MALI	-	0,6	-	2,4	1,2	-	-	4
- MAURITANIA	0,055	-	0,2	-	-	2	1	3,25
- NIGERIA	-	1,6	?	-	-	2	1	4
- RWANDA	0,7	-	-	-	-	-	-	0
- SENEGAL	2,2	-	-	-	-	2,4	1,2	5
- SIERRA LEONE	-	-	-	-	-	-	-	-
- SOMALIA	1,7	-	-	-	-	-	-	1
- SUDAN	-	-	?	-	-	-	-	-
- TANZANIA	3,72	-	?	-	-	-	-	3,7
- CHAD	2,57	-	0,569	-	-	3,1	1,5	7,73
- TOGO	-	0,5	-	-	-	-	-	0
- UGANDA	2	-	?	-	-	2,6	1,3	5
- ZAIRE	-	-	?	-	-	-	-	-
SUB-TOTAL	25,845	7,5	3,992	10,4	5,2	20	7,9	80,83
<u>JOINT OPERATIONS</u>								
- A.T. to OUA/IBAR	1,2	-	-	-	-	1,79	-	2,9
- VACCINE BANK	1,012	-	-	-	-	0,02	-	1,03
- RESEARCH	1,6064	-	-	-	-	-	-	1,606
- VACCINE CONTROL	-	-	-	-	-	0,8	-	0
- EPIDEMIOLOGY PROJECT	-	-	-	-	-	1,41	-	1,4
- ECONOMY PROJECT	-	-	-	-	-	0,345	-	0,34
- STUDIES	-	-	-	-	-	0,2	-	0
- OTHERS	-	-	-	-	-	-	-	-
SUB-TOTAL	3,8184	0	0	0	0	4,565	0	8,383
CONTINGENCIES	5	0	0	0	0	0,435	0	5,43
TOTAL	49,5415	7,5	4,197	10,4	5,2	25	7,9	109,733

It should be noted that the costs of the co-ordination and its associated technical assistance represented less than 4 % of the total of the Community financing (subject to confirming other commitments closed during the interphase of 1991 to 1995). This cost seems very reasonable in view of the onerousness of the CU's tasks, notably in the preparation process. For example the different members of the CU and the regional co-ordinators have clocked up over the past 3 years an annual average per person of about 100 days "on mission".

In terms of sustainability, the annual recurring cost of this CU would be in the order of 2.7 million ECU, spread across what are considered essential activities covering technical assistance, epidemiology, PANVAC vaccine control (topping up some measure of financial self-sufficiency), communication and economics.

At the country level it is difficult, in the absence of regular and consistent reports, to get an idea of the comparative costs. An enquiry in 1991 indicated that EU financing varied between 0.16 and 18.75 ECU per cow, with the average cost being less than 1 ECU per cow for the countries which had a relatively numerous or dense herd.

For vaccination campaigns (a component which one finds everywhere) costs would be of the order of 0.32 to 0.39 ECU per head in those countries for which the mission has been able to obtain information. It should be noted that when these vaccinations are done by private practitioners under a health mandate (Chad, Annex 5.4) or by professional healthcare assistants the cost per head appears to be, at about 0.15 ECU, clearly less. These costs are, however, strictly limited to a campaign and so do not cover the practitioner's costs of a permanent operation, such as the purchase of a vehicle.

For the privatisation of veterinary practice, another component which one finds in all the national programmes, the costs vary widely between over 50,000 ECU per practitioner to 17,500 ECU, according to the country. But, these components are in their early stages and are looking to the creation of autonomous "revolving loan funds" which, once they are in place, will significantly lower the unit cost. It is therefore premature to draw any conclusions about the use of EU funds for these components.

Finally it should be noted that the majority of national components also benefit from direct European technical assistance. In total 12 Technical Assistants (TA) are in place or planned for under Community financing of the current 13 national components (Annex 5.7). In the majority of cases their main role is either the setting up of structures for the privatisation of veterinary functions or providing support to producers ; the public services have better experience of vaccination campaigns, which have been running for longer. It is worth noting the serious disparity between for example Guinea Rissau with 1xTA for 350 000 head of

cattle and its neighbour Guinea Conakry with 1xTA for 1, 800,000 head. Within the framework of the regional programme some grouping may be desirable, provided that its members have a similar profile.

4.2. Organisation, management and follow up

The IBAR Co-ordinating Unit has played, during the whole period of PARC, an original and dominant role as co-ordinator, whether it be for the design and setting up of the anti-rinderpest strategy or the reform and harmonisation of livestock policies at a country level⁴. In general, this co-ordination, which in the final analysis has been the effort of only a small group of people, made it possible to guarantee that the programme was being continuously promoted and was able to initiate activities as soon as the conditions permitted. This work relied at first on a series of visits to the countries concerned in order to establish the policy of dialogue and to assist in preparing and following up the national components. These visits made it possible, more often than not, to ensure a common approach to the fight against rinderpest, but were not always sufficient to ensure the desired level of coherence in terms of design and implementation of national projects.

Planned, initially, for two years the technical assistance element of the co-ordination has been maintained to the present, albeit with several changes. The number of co-ordination personnel has remained relatively low, with 2 co-ordinators and 3 technical assistants (of which one was financed by the ODA up to 1995) plus a secretariat. These were supplemented by epidemiology units (financed by the FAO up to 1994 and now set up by them under EU financing) and communications (financed initially by FAO and now run by them under EU financing. To this must be added the PANVAC vaccine quality control laboratories set up by FAO (with UNDP funds) from 1988 to 1994 at Dakar and Debre-Zeit and taken over with PARC funding (for Debre-Zeit) since 1996. It should be noted that a rinderpest serosurveillance network was established from 1987 onwards by a FAO/AIEA joint venture, using various funds. Finally, since 1996 the CU has added on an economics unit which is sub-contracted to ILRI under EU funding.

Although the different units have been financed by different funders, the personnel have generally worked harmoniously together. IBAR has thus fulfilled its role of organising funding for co-ordination of livestock activities and, despite certain hiatuses (PANVAC), the handover between the various sources of funds has passed off relatively well. It is regrettable, however, that with the exception of the posts financed by the EU the other units have been

⁴ The absence of political support for co-ordination is strongly felt in southern Africa where a regional

discontinued.

From an organisational viewpoint it would be worth reflecting on the nature of any opportunity for the EU to multiply the number of regional programmes which have the same objectives, such as animal health, by having them managed either by separate units right at the centre in OAU/IBAR (tsetse fly project in East Africa) or by other structures (tsetse fly project in southern Africa, SADC Animal health project).

The CU management includes a “Regional Ordonator” who is the Director of IBAR and works with the Delegation at Nairobi for work plans and annual budgets. A certain number of components are sub-contracted to international development organisations such as the FAO (epidemiology, communication, PANVAC) or the ILRI (economics). In the particular case of FAO there were differences, when the mission was there, between the procedures of the EU and those of FAO ; despite the agreements and provisional contracts these problems were creating a blockage in the implementation of these components (apart from the simple business of making technical assistance available).

The Bamako sub-regional co-ordination office is monitored by the Regional Ordonator and the local Delegation on the basis of annual budget programmes and commitments written into the operating of the CU by the Delegation at Nairobi.

At the level of the national components the project is directed, in each case, by a Regional Co-ordinator who is often either the Director of Livestock or the person responsible for animal health services. He is responsible for the project’s management and is governed by the usual operating rules for EDF programmes, with annual work schedules and a budget, under the control of the local Delegation.

The project’s technical follow up is essentially done on one hand by field missions from the CU staff , which are good occasions for gathering information, and on the other hand, at annual meetings which are the occasion for exchanging information and opinions. With the exception of a reporting format for rinderpest which is rarely used, there is no formal system for the regular exchange of information between the national components and the CU and even less standardisation of information and the way to present it, let alone make any calculations. Even if the mission reports of the CU staff are rightly well regarded, including by the EU Delegations, the CU does not seem able to always produce summarised comparisons between the countries or continuous series on the different countries which would indicate the progress of the project. This includes the “objectively verifiable indicators” of the logical framework such as statistics on commerce, animal health, number of private veterinarians, development of public service budgets, or the role of livestock in the economy

On the other hand, the organisation of work schedules and the missions of particular components (communications, epidemiology, economics) seems to be more the fruit of informal exchanges at the initiative of the person responsible for the component rather than part of a common process of reflection and planning at the level of the whole body of IBAR. At this level, also, the system of reports and exchange of information still needs to be organised.

The financial monitoring of the CU is controlled at the level of the Nairobi Delegation, while that of its national components is done by the Delegations of each country. At this level and in particular for the first programmes and because of the regional character of the funds, there is a certain lack of involvement by the Delegations. This is sometimes exacerbated by the impression that certain decisions are taken externally (“Brussels or Nairobi”) and sometimes by the failure to send the summary accounting documents (project sheet) to the Delegations.

Those at Brussels who attempted to make the point with the first Community financing (RPR205 and 246) only received partial responses, according to the Delegations. The mission has elsewhere stated that there is some divergence between the information available in the documents which are accessible, and sometimes incomplete, from the Delegations and those of the central services. The balances which are available on these agreements for the running of the CU are not, for example, known by the Delegation at Nairobi which manages them.

The delay in transmitting certain documents, and the complexity and the number of years since the financing was agreed make necessary some complementary work at the headquarters (DG VIII) if one is to establish a link between the accounts and any archives relative to the programme, particularly for secondary commitments and payments.

The financing from 1993 onwards seems easier to follow. However the introduction of NIP funding between these funds. Thus, in the countries visited (Annex 5), one had begun by using the NIP funds (Senegal), another the RIP funds (Ethiopia), while a third proposed a split on the basis of the type of expenses (Chad) and a fourth proposed a split according to the programme’s components. The lack of coherence is clear and the anticipated effect of involving the countries thus loses its power.

4.3. Activities

4.3.1. Co-ordination

4.3.1.1. Establishing a permanent technical assistance capability

As mentioned above this capability now exists for some activities : preparation of projects and policies, co-ordination, epidemiology, communication, vaccine quality and animal healthcare economics. Animal production, financial aspects, and in general anything which does not directly affect animal health is not covered.

Different start dates and durations for the components make it difficult to maintain any group coherence. Certain components, moreover, will still be in operation and indeed only fully operational at the end of the financing of the PARC co-ordination (operating costs and technical assistance). This poses the problem of what will become of the overall structure of the programme co-ordination. The principal problem concerning this activity is to ensure its permanence from the financial point of view. (See § 8.6).

4.3.1.2. Central epidemiology cell

This cell has been recently given its own technical assistance and has just submitted its first annual work schedule. Over and above the need to resolve the problems of procedure (that of being an FAO sub-contractor funded by the EU), this cell is going to have to deal with the problem of establishing and forwarding the reports mentioned above.

Moreover it will have to integrate and run the activities set up by the FAO/AIEA epidemiosurveillance programme which was created in a framework of 23 national diagnostic laboratories.

It is going to, also, find itself confronted by some very different problems: firstly, the monitoring of rinderpest in East Africa ; then the broader epidemiological surveillance in the countries of West and Central Africa, who would like to declare themselves free of rinderpest and are in practice preoccupied by other epizooties ; and, finally, the need for communication and co-ordination with the neighbouring area of southern Africa whose priorities are sometimes different. There is a real risk of seeing the cell attach priority to a single problem area (notably rinderpest) and neglect the others, because of an awareness that human resources are limited and that choices have to be made.

4.3.1.3. Vaccine bank

It was noted that the laboratories stored a sufficient stock of vaccines for it not to be necessary to build up other reserves. At the time of its visit to Debre-Zeit (Ethiopia) the

mission confirmed that the vaccine production laboratory had a policy of always holding a stock of about a year's supply (15 million doses) in case of production problems. With this one laboratory there is already comfortably more than the estimated needs (3 million doses) of Phase III of the programme.

A study of different vaccine production centres was planned, but has not been started. It seems that there remain numerous local sensitivities about maintaining this type of activity, independent of their economic opportunity. Where these activities are not financed by the project and where there is no real demand from the countries, the mission sees no reason to undertake, at any cost, this consultancy.

4.3.1.4. Permanent and independent control of vaccine quality

This activity was set up by FAO at Debre-Zeit (Ethiopia) and Dakar (Senegal) with financing from UNDP which was finalised in 1994. The delay in setting up financing from the EU via PARC led to the closing down of the component for a year (1995). Only the PANVAC laboratory at Debre-Zeit is in operation today.

The results of the quality control have been, since the beginning (1988), very noticeable: it has allowed the strength of the rinderpest and CBPP vaccines to be increased so that they now meet the OIE norms ; and as a result of greater care various risks of contamination have been eliminated. The PANVAC activities now cover a network of 24 African laboratories which are currently submitting their vaccine production for quality certification. This certification is systematically required for vaccines used for PARC.

PANVAC's analytical capacity is largely adequate, but its experts are for the moment still FAO contractors. However a new Principal technical Adviser is planned for six months of the year for the purpose of ensuring complementary personnel training, once the problems of the unit's status and funding are regularised.

The first problem which must be resolved, and as quickly as possible, is that of the status of the unit. It is presently located in premises kindly made available by Ethiopia, who also contributes part of the operating costs (water, electricity, technicians). However no decision has been taken concerning the source and the status of the people who will run it beyond the current financing. It is therefore, for the time being, no more than a project run by FAO permanent staff. On this basis it does not meet the legal requirements necessary to open a currency account. On the other hand, it is issuing its first invoices even though its legal, and thus financial, status has not yet been settled or even tackled.

The principal problem of the components remains that of surviving beyond the present funding. A study and a financing plan have been done by FAO in order to achieve self-financing of PANVAC in 3 years. It continues with its vaccine quality certification activities, for which the principle of a progressive tariff has been accepted by the national producing laboratories, and offers its expertise (training, consultancy) on a fee basis. The mission confirmed that the present volume of services rendered and the proposed tariffs should effectively allow the organisation to survive. Its receipts remain narrowly dependent on the client countries and thus the financing of vaccination campaigns (rinderpest, CBPP) in these countries. Despite its unquestioned usefulness and its results to date, this makes the enterprise extremely vulnerable, as does the lack of a status which would allow it to diversify its activities and its receipts. Its longer term survival without any subsidy therefore seems difficult, without including the current transformation towards a private type of enterprise.

4.3.1.5. Animal healthcare research

Several research proposals have been completed or are still running with regional funds from the first global agreement. They have dealt with technical problems linked to the eradication of rinderpest and, more recently, to those concerning CBPP control.

The research programmes dealt with :

- the role of wildlife in the persistence of endemic areas and the spread of the disease (it seems that wildlife cannot act as a reservoir for the disease) ;
- researching any eventual immunodepressant effect from the rinderpest vaccine ;
- creating a thermostable vaccine in order to facilitate vaccination in difficult areas and to reduce cost ;
- creating new vaccines and diagnostic methods for CBPP.

The first two are old programmes which are now completed. They lead to important conclusions which were integrated into the PARC strategies.

The thermostable vaccine was developed and tested in Chad on a large scale ; a final serosurveillance control still needs to be done. It is more than justified when set against the costs of maintaining cold chains and the problems of future short term emergency intervention where no cold chain may exist.

CBPP is the major animal healthcare problem in East Africa now that rinderpest is more under control : it is also a grave threat to Southern Africa. With the stopping of

rinderpest vaccinations and thus the associated mass vaccination against CBPP it could extend to West and Central Africa where the disease remains endemic. There is thus abundant justification for equipping oneself with the tools for fighting this scourge, and this is one of the objectives of PARC.

The current programme groups 11 laboratories, 6 European and 5 African, under the co-ordination of CIRAD-EMVT (France). It has 4 components :

- create a new and more effective vaccine which can, in particular, reduce the risk of the allergic reactions which at present cause the traditional livestock farmers to sometimes reject the vaccinations ;
- improve diagnostic techniques ;
- more fundamental research on the mechanisms which lead either to the disease or to the appearance of immunity in infected animals ;
- training for African scientists and scientific reunions.

4.3.1.6. Creating an economic and financial evaluation capability

The economic evaluation component, sub-contracted to ILRI, is only just being set up because it still has to formally recruit its senior expert.

At present an initial work schedule has been established on the basis of the previous identification of problems ; an initial annual budget should be present within the next few weeks.

The approach followed attempts to provide the CU with resources to assess the economic effect of animal healthcare policies and to do this over successive years. It is however above all a macro-economic approach and should allow the Co-ordination Unit to finally have at its disposal economic indicators which show how its activities are progressing. This is provided that a system of reporting and the submission of standardised information is set up in parallel.

However, there are fundamental questions about the future of livestock for which economic models and aids to decision-making are missing in all countries and which risk being addressed only on the margins. The most notable are :

- the impact of privatisation policies and the recovery of costs on family economies in the traditional livestock sector where one knows that work (particularly by women and children) is poorly paid .

- the effect of the project on the commercial attitude of the traditional producers (in particular the pastoralists), who have been little inclined until now to opt for a productivity based outlook which may conflict with the security of the risk-averse subsistence character of their present system ;
- the profitability of capital invested in livestock and in particular in the different forms of intensive production.

4.3.2. National programmes

4.3.2.1. The fight against rinderpest

The rinderpest situation in Africa has been considerably improved in the course of the past fifteen years. The number of countries which have had outbreaks has passed from 18 at the end of the 1970s to just a handful today, all concentrated in East Africa (see map). The PARC programme cannot claim responsibility for the decline of the disease between 1978 and 1986. However it can be credited with the quality and the extent of the control activities and the follow-up established across the group of countries in its area of activities from the beginning. It has also been responsible for the considerable improvement of the situation in East Africa in terms of frequency and the impact of the disease. No new outbreaks have been registered since 1988 (Burkina Faso and Nigeria) in West or Central Africa and there is, as at today, no reason to believe that hidden outbreaks could exist in these areas. However the disease is still present in East Africa where, as a result of civil war and general insecurity in the endemic zones, it has not been possible to carry out the programmes of vaccination and control in a systematic manner. (See Annex 5.1).

In extremely difficult conditions, the PARC programme has been able to achieve conclusive results by the considerable flexibility of its activities and continually adapting strategies and ways of getting involved according to the changing situations on the ground, as can be seen from Annex 5.1. The setting up and the maintenance of *cordon sanitaires*, the running of both emergency and systematic vaccination campaigns (inside and outside countries which remain persistently endemic : Ethiopia and Sudan) made it possible to maintain varying intensities of pressure on rinderpest almost everywhere. These operations were set up either directly through emergency programmes and national projects or indirectly through NGOs present on the ground. The development of viable systems of serological monitoring and sero-surveillance of the disease have shown that these activities, though incomplete, have considerably reduced the effect of the disease and the epizootic risk in several regions (for example Ethiopia : Annex 5.6).

In the countries which are associated with the programme there were about 200 million vaccinations between 1988 and 1993 (Annex 5.1), with probably about 300 million between the start of PARC in 1986 and today. The PARC programme allowed a good part of these to be done through emergency campaigns or national projects. However, unlike the JP15 programme, these programmes of mass vaccination and protection were accompanied by complementary programmes to ensure the follow up, the efficiency and the improvement of the fight, particularly through :

- **a network for serological monitoring and serosurveillance** designed to verify the efficiency of the vaccinations by measuring the level of immunisation in the endemic zones and the *cordon sanitaires* and to confirm the absence of the virus in both the epidemic zones and those declared free of the disease. This network was set up in 23 countries by the FAO/AIEA joint project in Vienna. It constitutes one of the major successes of the PARC programme, which had rightly put in place during Phase III a central epidemiological unit and continuous support to the national diagnostic laboratories ;
- **reinforcing the systems for notification of the disease**, which remain insufficient;
- **establishing vaccine banks and using the Panafrican Centre for Vaccine Quality Control (PANVAC)** ;
- **setting up a communications unit**, designed to implement communications strategies and to develop supporting material specific to improving understanding of the different components of PARC by the livestock farmers and the dialogue between the public services, the private sector and the decision-makers ;
- **research projects on rinderpest.**

These activities moreover played a role in revitalising the majority of the animal healthcare services, which until then had been deprived of even the basic resources for doing the job, by means of the equipment and financial means which were allocated to them.

4.3.2.2. Re-structuring livestock services and reforming policies

Since the beginning of its activities in 1986 the PARC programme has directed its efforts towards the improvement of animal health care through two principal activities : strengthening the public service activities and promoting the privatisation of the veterinary profession.

Having established that the public services could not cope on its own with all the tasks which it tried to deal with, the dialogue which was being conducted on how to strengthen

the public services was based on a redefinition of their tasks and their concentration on activities of public interest while the others were assumed by the private sector. Budgets for the services being generally insufficient and unbalanced, it was considered essential to have an increased rate of recovery of costs for the services rendered. So that the receipts from the sector should be effectively allocated to the relevant public services, the establishment of new financial procedures were also considered : “livestock development funds” should centralise these receipts and ensure the financing as well as the viability of the services.

Finally, to correct the imbalance which existed between the costs of personnel and the costs of operating the services, it was necessary to re-organise the animal health care services. In the majority of cases, this implied as a minimum a halt to recruitment and often the implementing of a system for encouraging people to retire from the public sector.

In practice, in the majority of countries where these changes had been promoted by the system of dialogue, the PARC came up against difficulties in the modification or the preparation of new regulations designed to control the respective roles of the private and public sectors.

On the other hand, the adoption of cost recovery systems, which were often presented as a prior condition, had been achieved in most of the countries involved, even for “obligatory” vaccinations against rinderpest and pleuropneumonia (except Ethiopia). The rates of recovery, however, remain at present mixed, sometimes without any clear justification, and rarely cover the totality of costs (between 20 % - 75 %). The effect of cost recovery on the attitude of livestock farmers and the efficiency of the vaccination campaigns, particularly for obligatory campaigns such as rinderpest (the prime objective of the project) have, however, never been measured objectively. Lastly, the establishment of funds specific to the livestock sector often came into conflict with principles of orthodox budgetary management or the proliferation of these funds (Senegal, Mali, Annexes 5.2 and 5.3). Other problems were insufficient funds, problems with modes of payment and fraud (Chad Annex 5.4).

4.3.2.3. Privatisation of services to the livestock farmers

The privatisation of the animal healthcare sector is part of the general policy of disengagement applied by the Governments and supported by the funders through the structural adjustment programmes. It is closely linked to the objective of strengthening the services in order to ensure better incomes for the producers. It is primarily concerned

with those activities for which there exists a spontaneous demand : the importation and distribution of medicines and other veterinary inputs, curative treatment and non-obligatory vaccinations. Other aspects which affect production can also be included, such as reproduction (artificial insemination, production of young), feed (provender, mineral and vitamin concentrates), advisory and extension activities, and training.

Implementing privatisation needs real political support and a favourable economic and legislative climate, as well as the cessation of corresponding activities by the public services. It has often, along with the recovery of costs, been made a prior condition for setting up PARC national programmes which have sought to promote the following stages :

- creation of a regulatory environment favourable to the modifying of existing laws ;
- privatisation of the wholesale importation and distribution of medicines and other livestock inputs ;
- implementing an adequate system for the structure and promotion of a programme (support to professional organisations ; identification of participating financial organisations ; the negotiation of conditions for financing ; training and project evaluation ; and the management of the enterprise) ;
- support for setting up private practices on the ground ;
- participation by the administration in the promotion of the programme (no unfair competition, allocation of official health mandates).

The activities which have been completed to date are not inconsiderable, far from it, but should be a proper part of the private sector and not a substitute for public financing. Without that, their effects will be only transitory. Annexes 5.2 and 5.6 illustrate the following remarks :

- the importation and distribution of medicines and inputs has been privatised almost everywhere, albeit incompletely in some countries, with a consequently better adaptation of the quality of supplies to demand. However the statistics fail to show the effect of these measures on the actual consumption of these inputs, where devaluation of the currency has often created strong price inflation ;
- a legal framework has been prepared and adopted in many countries in order to allow for the establishment of private practices. However either because they were badly or insufficiently prepared, or because they were shown to be not applicable in some geographic contexts, or even because they were found to be contrary to the interests of certain members of the administration they only rarely constitute the sort

of long term legal framework which is essential to the healthy growth of the private sector;

- the principle of granting health mandates has been adopted by some countries, but has not yet been made really effective except in one or two of them ; this is despite a definite interest in the effect on costs and the services to the owners (Chad, Annex 5.4) ;
- participation in the process of privatisation by other livestock professions (veterinary assistants, breeding professionals) pose serious legal and regulatory problems in terms of differentiating responsibilities ;
- the aim of the livestock service has sometimes shifted to a secondary agenda of benefiting the interests of the profession and particularly assisting in the struggle against the unemployment of young graduates ;
- the system of funding has been discussed with the financial institutions of certain countries, but rarely with professional funders or private enterprises. The result is conditions which vary greatly according to the country, are often very favourable to the banks, and are sometimes excessively subsidised by the borrowers ;
- only the healthcare activities have been supported by the Community's financing, even though often the technicians or professionals could be a resource for the extension of intensification and/or could by this means improve the profitability of their business, particularly in the areas where the animal healthcare activities are insufficient.

Overall, and even though applied in a very variable manner, the process of privatisation can be considered irreversible in the context of the structural adjustment taking place in the economies, supported by various fund providers⁵. Even if it seems to have been slow, for having only started at the end of the 1980s (it involved only about 400 veterinary doctors across the project zone, outside Egypt), PARC has certainly acted as the engine for the activities of other fund providers. There has been a general policy theme for which the exchanges of experience and information between countries is invaluable. In contrast,

⁵ Another fund provider, France, which supported the process, has recently engaged in an in-depth evaluation of 4 other countries (Burkina Faso, Guinea, Niger, CAR) : "Processus de privatisation en santé animale (The process of privatisation animal healthcare)". VSF/CIEDEL.1995. The conclusions tally with the mission's observations in terms of the profitability of practices, the effect on the budgets of the

the diversity of situations and restrictions as well as the variously acknowledged secondary agendas suggest that it is preferable to implement policies through national programmes.

Rather than being seen as a panacea which reduces public expenses, it is better to evaluate the process in terms of the improvement in services which it brings to the livestock farmers. Kenya's example shows clearly that it is effective in terms of services to these owners when it is applied where the client base has the financial resources and it is managed on the basis of financial goals. However this suggests that without artificial external support the formula is not viable across vast areas and in particular where the grazing is most extended or the potential clients are less densely located.

Moreover the improvement in the service is more often a consequence of opening up to competition than the sole fact of privatisation ; an important part of the inefficiency for which the public services are reproached undoubtedly comes from the monopolistic situation in which the staff find themselves. It is important, therefore, to avoid re-creating with privatisation other monopolistic sources of income by creating veterinary, or other types of, practice which are protected to the extent that the same result happens. The mission considers that in terms of improving the services to the clients the liberalisation of veterinary medicine, and the competition which it will create, is undoubtedly more important than privatisation alone.

Re-focusing this programme on services to livestock farmers and on an entrepreneurial approach should make it possible to add more value to the efforts made to date.

4.3.2.4. Communication

The programme has developed an important, though intermittent, strategy of communication between the players on the ground (vaccinators, livestock farmers) and, horizontally, between those responsible at a national level.

Each of the current national components has committed a part of their budget to these aspects and often nominated a responsible person, or even team. There are some important problems ; for example to make the livestock farmers understand that the recovery of costs is not a consequence of privatisation ; or to explain to public sector staff which responsibilities must be abandoned (together with the associated remunerations of varying legality) in the process of privatisation.

At the CU, including the sub-regional unit at Bamako, a technical assistance service is

in process of being established : 2 FAO experts and 2 junior experts appointed by Belgium and Italy. The work schedules and the annual budgets have been prepared, but their implementation has come up against the procedural difficulties which persist between FAO, responsible for carrying it out, and the EU which finances it.

The mission noted on a number of occasions the importance and effectiveness of certain “products” of this component (booklets, presentations, flip charts) : the users whom the mission met also confirmed the merits. Various other themes linked to livestock (for example, protection of the soil) have been developed in one or other country as a result of this component. It seems that in its present and planned form to be well matched to the needs of the programme.

4.3.2.5. Other activities

The project has, through its national components, sporadically developed other activities in order to respond to particular local needs : sales of forage seeds, wells, herbaceous biomass, commercial studies.

Without questioning the good intentions of these aspects of the development of the sector, the mission noted on each occasion that they were activities which were marginal to the rest of the project and that over and above there being no serious motive for them they were outside the typical sphere of any technical assistance from the National Coordinators. The results were, moreover, often open to question (Annexes 5.2 to 5.6) and it would seem more opportune for these types of activity to be taken over by other programmes with which they would fit.

5. EFFICIENCY

5.1. At the level of OAU/IBAR

5.1.1. Co-ordination of the fight against animal disease

The activities of the EU within the framework of OAU/IBAR have undoubtedly constituted an essential factor in the co-ordination of the fight against rinderpest across the whole continent. They have contributed particularly to centralising the statistics about the disease and publicising them, implementing and adapting strategies for action, and co-ordinating the time and place of activities in the various participating countries. In this respect the PARC programme has made an essential contribution to the control of the disease over the past 10

years. However, although 23 ELISA test units have effectively been installed by the FAO/AIEA joint venture, and the necessary personnel trained in their use, the results of the serological follow up submitted to the CU in 1994 only involved fewer than 10 countries in 1994 and only three in 1995. This shows the importance of communication at this level.

The PARC contribution was normally limited to rinderpest during the programme's Phases I and II which made this their objective. However it has broadened out today, especially as a result of the wider aims given to Phase III, to the whole gamut of cattle disease and particularly contagious bovine pleuropneumonia.

As far as the other animal diseases are concerned, the results obtained have sometimes been not inconsiderable even though they have been obtained as a result of secondary activities (vaccinations against CBPP by Neobiseq in Ethiopia, vaccinations against PPR and blackquarter during rinderpest campaigns), but normally they have been occasional and discontinued. It is only with Phase III that control of the whole gamut of animal diseases has been clearly and specifically cited as one of the objectives of the programme. It has mostly been through the surveillance activities, in the areas where they have been best managed (Chad, Senegal, Ethiopia...), that PARC has been able to make a particular contribution by being able to take faster and more targeted action based on precise diagnoses. But at present many countries are still deprived of these global systems of epidemiological alert.

It is therefore desirable that the PARC expertise in collecting healthcare statistics and epidemiological monitoring should realise its potential and be developed in order to extend its sphere to the whole group of diseases which are either epizootic or are of economic importance, without in any way taking its eyes off the uncompleted objective of the eradication of rinderpest. Several courses of action (well described elsewhere in certain documents issued by the CU) could be developed in the framework of Phase III, at same time as anti-rinderpest measures are intensified :

- strengthening the system of notifying and registering pathological incidents occurring in participating countries ; priority should be given to systems of serological monitoring and serosurveillance for rinderpest, extended to CBPP and other diseases, particularly in countries outside the rinderpest endemic and epidemic zones ;
- continued support to the operations of diagnostic laboratories in relation to the reinforcing of national notification systems ;
- the development of an epidemiological database at IBAR and the strengthening of relationships between them and national services in terms of communicating data;

- improvement of information systems between IBAR and the other regional co-ordination structures (such as SADC) in order to reinforce at a pan-African level the setting-up and carrying out of common strategies for control (particularly for CBPP, foot and mouth disease).

Although these systems will remain indispensable until the eradication of rinderpest, it is clear that the availability of the resources used cannot continue except in a larger context of supporting operational structures on the ground. These structures would have to be aimed, at the same time, at assessing the importance of existing diseases or the impact of any “battle plan“, and to detect any eventual appearance of serious exotic diseases or confirm the emergence of new pathological phenomena. The effectiveness of these activities represents one of the principle criteria of the strengthening of public animal health care services.

5.1.2. Constitution of an emergency action capability

The PARC programme has committed itself from the beginning to put in place an emergency intervention capability against rinderpest through setting-up a vaccine bank, putting in place systems for early diagnosis and alert, and the creation of funds for emergency intervention. This emergency response capability becomes yet more important in light of the likely cessation of vaccination in the majority of the countries in Central and West Africa at the same time as the risks of the disease spreading from the endemic zones seems to be increasing and it may be necessary to have the ability to take on the management of the risk inherent in this policy. At the present time, the vaccine banks are no longer the object of any particular involvement by PARC because it no longer seems a major constraint (See § 4.3.1.3) but above all, the project no longer has a central financial capacity for emergency action nor procedures to mobilise such funds within the delays which are compatible with the disease (some emergency funds are provided for in certain national components such as Chad or CAR). The warning systems are essentially based on the encouragement of the notification of out-breaks, the installation of sero-surveillance networks and the control of cattle movements at the frontiers. Today, the effectiveness of the PARC programme cannot yet be evaluated in this respect except in the context of the design of systems to be developed. The setting-up of these emergency response capabilities will thus depend in large part on the effectiveness of the new epidemiology unit established within the framework of Phase 111 and its capacity to mobilise the national services for centralising statistics and the operation of diagnostic tools which have been put in place.

5.1.3. The coherence of animal health policies in Africa

The PARC Co-ordination Unit, with the aim of improving services to livestock farmers, has

sought to promote reforms to livestock policies and the structure of public services. The dialogue with the Governments has been based from the beginning on a group of so-called "soft conditions" presented as being non-obligatory.

It is to the credit of the joint regional and national approach of PARC that all the participating Governments have taken on proposals for equivalent reforms and have continued the debate about what measures to promote. Moreover, PARC has encouraged as much at the political as at the technical level a regular communication between the Governments which could not have happened without its involvement. Thus the programme has had at its disposal, thanks to regional financing and the permanent dialogue, a powerful tool for harmonising national policies at a continental level. On the other hand, in the implementation of national programmes, it can seem unfortunate that the accent has more often been put on the recovery of the costs of the public services than on the restructuring of the administrations charged with delivering them in light of the concentration and the professionalism of these services. Thus there is a global coherence about the direction of the current reforms, at the same time as there is a wide difference between the structures and the capacity for action on the ground.

5.1.4. Co-ordination of the sector's finance sources

Ever since the early days of its preparation and becoming operational, PARC has encouraged the interest and co-operation of various funding sources, of which many have participated with varying degrees of continuity in the financing of important components linked to the programme. FAO and UNDP, who had supported a number of emergency actions against rinderpest at the beginning of the 1980s, have participated directly in the financing and the implementation of components dealing with PANVAC, communication and epidemiology (in association with AIEA from Vienna). SIDA financed the epidemiology unit during the first years of the programme. FAC participated in several research programmes and provided complementary technical assistance (CAR). The ODA provided a technical assistant for several years. USAID took part in epidemiological investigations. In parallel, a permanent dialogue has been maintained with various important fund providers (particularly the World Bank and FAC), which has encouraged a real synergy in the implementation of development projects which are of interest to the livestock sector of participating countries. The participation of these funders at numerous technical reunions and the personal contact kept up by the IBAR Co-ordination Unit have created a climate of co-operation clearly favourable to the cohesion of the financing put in place, the appropriate policies, and the strategies developed in line with PARC's global objective.

5.2. At the country level

5.2.1. The eradication of rinderpest

Despite the undeniable positive contributions of PARC the objective of eradicating the disease appears, unfortunately, to be a long way off. The difficulties of control in the areas where there is fighting or where access is difficult (Sudan, Somalia, parts of Ethiopia and Uganda and Kenya, Eastern Chad), the negligence or the demoralisation of certain national services (Kenya, Zaire) and the impossibility of the programme getting involved in certain sensitive areas (Zaire, Nigeria, Central Africa, Cameroon) still leaves important breaches in the system of control which has been put in place. Recent outbreaks identified in Uganda, Kenya and Somalia, which bring to 5 the number of countries which are probably still infested (which it was thought had been reduced to 2 only in 1990) are evidence to this. The map on Page 51 illustrates this development which is detailed in Annex 5.1. Finally, the appearance of low virulence strains of the virus in the region of Mandera, Kenya, and in the South West of Somalia, and the still puzzling eruption of outbreaks amongst the wildlife in Tsavo, rightly cause doubt to be cast on the convictions held until now about the 'simplicity' of the disease's biology.

These different factors demonstrate the necessity of a heightened vigilance about the risks of the disease spreading into the areas which are still considered clear or which become clear thanks to the efforts made over the last 15 years. One view, which must be pessimistic if one refers to the risks incurred, but does not query the opportuneness or the feasibility of the objective of eradication, leads to concern about (Annex 5.1.) :

- commercial traffic and existing transhumance between the South and the West of Sudan which involves the possibility of infection of the areas situated to the East of Chad and the North and West of Central Africa (where there have not been any vaccinations this year) and between these areas and with the uncontrolled commercial movement from at various places along the Chad/Central African frontier, North Cameroon and Nigeria ;
- the grazing areas of North-East Zaire which have not be the focus of any recent investigation, even if it seems that the recent troubles have created a drastic decline of the herd. Although theoretically separated from South Sudan by a barrier created by Tse-tse fly infestation, they are not protected from contamination from across the badly controlled zones of Western Uganda and could in their turn infest the troubled zones of Goma and Kivu, as well as Rwanda and Burundi, and from there, Tanzania ;
- The South West of Somalia where. although there are still questions about this,

numerous cases of “low virulence” rinderpest have been noted in 1996 in uncontrolled areas. It is not difficult to think that they could expand from here to not only East of the river Juba, but also into the Oromo provinces of Southern Somalia and the South-East of Ethiopia, which is at present considered to be disease-free and therefore not vaccinated for several years ;

- In Tanzania which, despite a high level of seropositivity in the herd in the areas close to Tsavo, cannot be considered completely protected from contamination by the wildlife present in the frontier region, and lastly ;
- from the sprawling so-called ‘area of civil unrest’, from East Tsavo at Wajir, along the river Tana as far as Marsabit in Kenya. Some studies of the situation as it is today and was back to 1980, tend to show that in this area the disease has remained endemic since then and would have therefore escaped the attention of the Kenyan authorities as much as those responsible for the PARC project (See Annex 5.5).

Taken together these risks show that the strategy adopted, which consists of establishing a 200 km wide *cordon sanitaire* around the endemic zones in 1990 (south Sudan and Ethiopia) is probably insufficient or too difficult to implement by the methods adopted to guarantee the containment, in the first place of the disease, and then its final eradication.

The results obtained so far within the PARC programme have therefore contributed very largely to reducing the incidence of rinderpest on the continent and the establishment of the means for follow up and effective surveillance of the disease. There remains much to be done in order to establish control, in an unfavourable social and political climate, over the various factors which should allow the disease to be eliminated with certainty in a number of areas which are at present inaccessible. Above all it is necessary to prevent it spreading again through areas which are for the moment uncontrolled, to find a way of getting involved effectively in these areas and to rigorously counter the risks inherent in the possibility of the virus spreading through the wildlife and, in low-virulence forms, the domestic herd.

5.2.2. Establishing systems for monitoring animal healthcare

Although important progress has been made in several countries and viable diagnostic resources are in place, the monitoring of animal healthcare has above all involved rinderpest. Even if definite investigative activity has been agreed to for certain countries (Ethiopia Chad), much remains to be done in order to have available at a continental level a homogenous network for monitoring animal diseases, and particularly those which have most effect on livestock productivity. The healthcare monitoring activities, though one of the primary

responsibilities of the public animal healthcare services, have often been amongst the first to suffer from budgetary restrictions.

The mission considers that the setting up of viable systems and networks for diagnosis and epidemiosurveillance should become one of the primary criteria for the evaluation of Phase III of the PARC programme and any subsequent developments.

EVOLUTION OF RINDERPEST DISTRIBUTION IN AFRICA

(1980 - 1996)

1988

10 INFECTED COUNTRIES



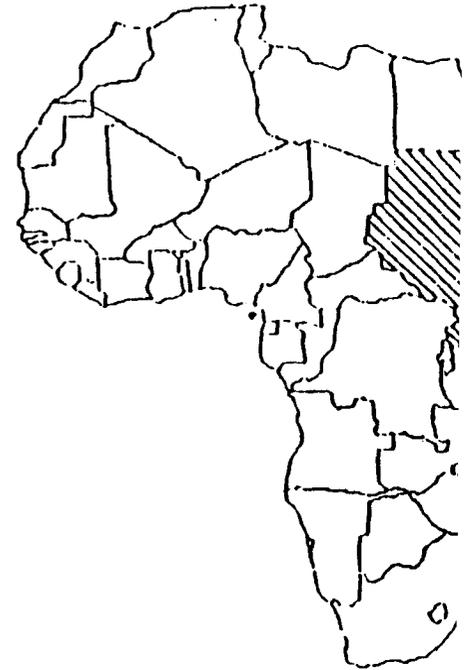
1989 - 1990

2 INFECTED COUNTRIES



1993 - 1996

5 INFECTED COUNTRIES
(PROBABLY)



5.2.3. Rationalisation of public livestock services

The establishment of new financial procedures to allow the services to be financed by the sector's own resources has often run up against a difference of ideas between the country's financial authorities and certain fund providers (Senegal, Mali). These differences have either been for reasons of principle about the common management of fiscal receipts, or concern about the conditions for running a revolving fund, or even about the sheer increase of in the number funds created. New problems have been created, such as the recovery, the routing and the management of sums collected, or even the control of any fraud created. The livestock development funds, considered indispensable to the viability of the public services, have been established in only very few countries (Chad, Central Africa) and represent but a small part of the actual needs (Chad, Annex 5.40).

On one side, the efforts of PARC and other fund providers are the basis of the real progress which has been made in freezing recruitment by the public services which ought now, by the normal process of people leaving, lead to a progressive reduction in staff. Some countries, (Guinea, Central Africa) have even introduced an extensive programme of forced redundancy for their staff. Apart from these few exceptions, the results obtained to date are hardly encouraging in terms of reducing staff or the reduction of public sector budgets and have not to date achieved the objective of viability which was sought⁶ (Annexes 5.2 to 5.6). Moreover freezing recruitment can also become a constraint by limiting access by the services to the very skills which are needed.

In that essential area of the effectiveness of the public livestock services, it seems that the efforts developed in the framework of the PARC programme (and, moreover, by other important fund providers) have more often tended to treat the symptoms rather than the patient and to take more notice of the apparent effects than the basic problem. The reduction, (evident in real terms) of the funding of the services has in effect been considered the primary cause of the decline in their effectiveness and therefore justification for their involvement. On the other hand, little note has been made of the fact that it is often the addition of new responsibilities (often generated by provisional external financing⁷) and the willingness, for decades, of many of those responsible to use the Government (from convenience or for reasons of the client's politics) as the favoured employer, which better explains the inflation in personnel, the dilution in skills and the progressive imbalance of budgets to the benefit of

⁶ These conclusions are also those of the in-depth evaluation done by VSF/CIEDEL, mentioned above, commissioned by France and relating to other countries than those visited by the mission.

⁷ In this context, see the share of projects in the funding of the services or the personnel employed in Chad

the salaries⁸. There has been more insistence on the recovery of the cost of the services (either essential or accessory) to compensate for the apparent insufficiency of funding in the present form than on the restructuring of the public services on the basis only of their particular tasks. This necessary concentration of their mandates on activities derived exclusively from the public sector would have made it possible to redefine their needs, which alone need adequate financing from the State.

In this context, one has often overlooked the essential professionalism of public service employees for tasks which only come within their duties which should be undertaken with all the required competence and reflected in their rate of pay.

5.2.4. Development of privatised services to livestock farmers

The development of privatisation is still in its first stages and the services provided by the private sector still remain marginal with regard to the potential demand (which remains normally very badly covered by the public sector). Where these private services are now available, the problem for the professionals is more often the coexistence with government employees than taking on services previously provided by the public sector. The following two pages refer to a Summary Table created by the CU on the present split between the public and private sectors.

The comparative efficiency of the public and private sectors can hardly be measured except in the rare cases where the health mandates have been issued (where a slight improvement in costs and vaccination cover is noticed) and in the context of imports and distribution of livestock inputs. In this last area, the private sector has shown itself to be unquestionably more sensitive to demand and thus to the concerns of livestock farmers, which has led to a better availability of products in the countries. As for the quantities, there are no statistics which are really useful, particularly in light of the effect of the almost widespread devaluation of currencies.

Finally, on the subject of costs of privatisation the effects of payments (recovery of costs, margins, taxation) on the economy of livestock farmers has not yet been measured or included in an overview of an improvement in their production and their revenues (the global objective). The effect on their commercial performance or their investment in systems of intensification, for example, is certainly not non-existent but has not yet been evaluated.

⁸ In Zimbabwe, whose animal healthcare services can be considered as a model for the continent, the share of personnel costs (4500 employees) only represents 35 to 40 % of the services' budget over the past 10

In the absence of convincing evidence, one has to keep to simplistic reasoning which relates the increase in the consumption of medicines and veterinary services to the increase in productivity, which itself creates an increase in commercialisation and the income of livestock farmers and from this point, of the private veterinarians who supply them. Too many unknowns exist about the socio-economic performance of traditional producers and the markets in this new area.

The problem of areas which are less profitable because of lower population density continues to be acute whether, moreover, it applies to the private or public sectors.

As for health mandates, whatever may be results in terms of quality of revenues or economics of the profession, it only provides a limited security to private practitioners because they can be terminated. They are generally very aware of this and essentially look on them either as an opportunity to build up their funds and client confidence in order to create a private clientele, or as a supplementary income for their business, or as just the seizing of a good, but, temporary opportunity.

LEGAL STATUS OF ANIMAL HEALTH SERVICES

COUNTRIES	RECOVERY OF VACCINATION COSTS PB-PPCB	PRIVATIZATION	ORDERS AND ASSOCIATIONS OF VETERINARIES	EDF	IMPORTATION AND WHOLESALE OF MEDICINE			SANITARY MANDATE	PARC CREDIT LINE FOR PRIVATIZATION (1)
					Gouvert	Gouvert et privés	privés seuls		
BENIN	+	+	+	-		+	-		
BURKINA FASO	+	+	+	+		+	+**	+	
BURUNDI	+	+	+	-		+	-		
CAMEROON	+	+	+	+*			+	-	
COTE D'IVOIRE	+	+	+	+		+	+	+	
DJIBOUTI	+	-	-	(+)		+	-		
EGYPT	+	+	+	-			+	-	
ERITREA	+	-	-	-		+	-	-	
ETHIOPIA	+	+	+	-			+	-	
GABON	+	-	-	-			+	-	
GAMBIA	(2)	+	+	-			+	-	
GHANA	+	+	+	-		+	-		
GUINEA-BISSAU	+	-	-	-		+	-		
GUINEA-CONAKRY	+	+	+	-		+	+**	+	
KENYA	-	+	+	+			+	-	
MALI	+	+	+	-			+	+	
MAURITANIA	+	+	-	-		+	-	+	
NIGER	+	+	+	+*			+	+	
NIGERIA	+	+	+	+			+	+**	
UGANDA	+	+	+	+			+	-	
RWANDA	+	-	-	-			+	-	
CENTRAL AFRICA	+	-	+	+			+	-	
SENEGAL	+	+	+	+			+	(+)	
SOMALIA	+	+	-	-			+	+	
SUDAN	-	-	+	-		+	-	-	
CHAD	+	+	+	+			+	+	
TANZANIA	+	+	+	+		+	-	+	

5.2.5. Improvement in the management of natural resources

Few of the national components (Mali, Ethiopia) include specific actions in this area and the results obtained in terms of support to livestock farmers' associations and the improvement of grazing areas, and thus the fight against desertification, have remained negligible compared to the size of the PARC programme. For Ethiopia, the effectiveness of the production of forage seed and their purchase exclusively by programme funds, does not allow for a reasoned judgement to judge the level of commitment of the farmers who cultivate neither from the point of view of the propensity to use them as animal feed supplements, nor the validity of even discounted results. In Mali, the situation needs above all a system of observing and measuring.

6. IMPACT OF THE PARC PROGRAMME

6.1. Eradication of rinderpest

The principle merit of the PARC programme has certainly been to put in place a policy of co-ordinated activities against rinderpest, relying on a structure capable of providing appropriate international political support and complemented by worthwhile national activities. Even if the much sought-after eradication of the disease has not been achieved so far and if risks of a relapse still persist, the effect which has so far been obtained on the income of the livestock farmers can be considered a consequence of a considerable reduction in the mortality which had been feared without the project. It is estimated that the losses resulting from the disease between 1980 and 1985 had been of the order of 1 million head of cattle. It is a pity that a precise estimate has not been made using statistics as precise as were available in Kenya through the public services and in Sudan through the information from the NGOs present on the ground. It is reasonable to think, however, that since the start of PARC, the annual losses have fallen to several thousands of head of cattle at the most, if not only several hundreds. This significant impact on the income of a very large number of livestock farmers has been possible to achieve principally through the system of surveillance which was created and the capacity for adapting intervention strategies which it made possible.

The disappearance of rinderpest in the countries of East Africa, although it is not the only pathology problem responsible for the exclusion of this region's meat from exportation to outside the continent, can be considered a first step towards opening up outside markets.

6.2. Improvement in the services supplied to livestock farmers

The improvement of the services supplied to livestock farmers is still too diffuse and dispersed to have played a measurable role in the productivity of the herd. The public services, have, in general, barely improved their effectiveness, outside vaccination campaigns, nor yet put at the disposal of livestock farmers diagnostic tools which are useful at their level (apart from rinderpest). The establishment of private practices is too recent to have really helped to develop the stock, even on a local scale (except for a few exceptions) and still remains too marginal in geographical terms for one to be able to hope for a visible effect. In quality terms, however, private veterinarians have already shown their effectiveness in several countries, if only by making available, in such areas as they exist, products well adapted in both quality and quantity, but in the best case by supplying regular, competent services which the State no longer provides (artificial insemination in Kenya). The private practice of veterinary medicine and the secondary employment which it supports, indeed the development of a specially trained group of auxiliaries is, what is more, a not unimportant source of employment for the future.

6.3. Improvement of livestock policies in Africa

The PARC programme is the only project to have sought, since the era of Independence, a systematic dialogue between itself and the Governments at a regional level and to have systematically preferred meetings for the harmonisation of action and the finalisation of strategies agreed upon by the Governments themselves. It has, moreover, taken encouraged these Governments to involve themselves more closely at a world level by convincing them to strengthen their membership of international institutions such as the Office International des Epizooties - OIE (International Office of Epizooties) or for technical purposes to make better use of international reference laboratories (Pirbright, CTVM). As far as livestock policy is concerned PARC has been a particularly useful tool, by reason of both the originality and complementarity of its approach, in a globally coherent development of policies in close collaboration with the other providers of funds to the sector. Although its impact on revenues is not quantifiable in the short term, these objectives have produced not inconsiderable effects on the recent landscape of the livestock sector in Africa.

7. ECONOMIC AND FINANCIAL ANALYSIS

The PARC programme was not the subject of any prior economic analysis, either globally or of its national components, which could be used as a base for evaluating the costs and benefits of the project. The internal evaluations have been conducted, to date, on the

technical aspects. The 1990 evaluation, at the half way stage, could only recommend the inclusion in any future analysis of economic and financial aspects. This gap is in the process of being filled with the creating, within the framework of Phase III in collaboration with ILRI, of an economic monitoring unit for the project. Amongst other things which it has done, and way ahead of the rest, the economic and financial evaluation of the strategies chosen for the definitive eradication of rinderpest or any other epizootic condition and the problem of the viability in terms of recurrent costs of the structures and permanent activities implemented or recommended by PARC.

Various studies and reflections have attempted to determine the financial viability of the professions which the privatisation policy has given rise to. What has come out of this is that even if the professions of importer and wholesaler of livestock inputs are likely to rapidly flourish (provided that there is no unfair competition), the financial viability of private veterinary practices is strongly dependant on the environment and the livestock methods normally used in that region. Thus the practices which are established in the areas of high potential (the highlands of Kenya, cotton growing regions) benefit from significant and sedentary concentrations of animals with intensive and productive rearing methods which consume services and inputs. In contrast, the extended and mobile livestock of the Sahel or Sudanese regions, where methods more related to subsistence than productivity, are only small consumers of inputs and services. The viability of a practice in these areas, if indeed such exists, is then dependant on the proximity of large concentrations of cattle and/or the existence of tasks delegated from the State in order for there to be sufficient work.

8. VIABILITY

8.1. Accompanying measures

In general, the PARC approach of dialogue and co-ordination at the level of OAU has made it possible to obtain a convergence of national policies.

Despite differences in conception between the countries, and in some cases imperfections, numerous legislative and regulatory measures have been taken in the form of the sought after structural reforms. The table on pages 55 and 56 illustrate this.

This unquestioned viability must nonetheless be tempered by two observations. Firstly the application of the exact wording of the law, and particularly its control, are sometimes difficult or even impossible in view of certain structures or conditions which still prevail in vast areas of Africa's grazing. Secondly the problems of civil unrest and the relations between the Governments or between them and the EU can cause breaches in the system set up by the project and so threaten its viability.

8.2. Economic and financial viability

At the co-ordination level the pursuit of external financing is an important condition for ensuring in the medium term the viability of a number of desirable components (see §8.6).

At the level of the national components, there is certain economic interest in the majority of countries where livestock is an important component of the national economy. The financial viability is strengthened by the ending of the costs related to the vaccination campaigns and the concentration of expenses on healthcare monitoring. Thus it essentially depends on firstly running the programme right up to the time when the disease is effectively eradicated and, secondly, on re-focusing the efforts and activities of the public services on the only tasks which are still their particular domain, particularly the surveillance of animal health. This is why these are the objectives towards which PARC III should principally be evolving

8.3. Technological viability

The techniques employed have been tested and normally mastered by the national services which used them. Further training is certainly necessary, in particular at the level of the epidemiosurveillance networks, but the better integration achieved between the Governments in the international networks should make it possible to compensate for this.

Specific complementary research remains to be done in order to ensure the overall viability; for example the role of wildlife in transmitting the disease, or the indication of certain viral forms.

Finally the results obtained can only be preserved to the extent to which emergency intervention makes it possible to deal with any outbreak which appears in the zones declared provisionally disease-free. Such intervention often substantially exceeds the financial and sometimes even technical capacity of the national services. Although the capability exists, notably at the CU level, and though emergency intervention plans are in the process of being established in many countries, neither a reserve fund nor action procedures have yet been installed or planned at the CU level.

8.4. Socio-cultural integration and the role of women

Anti-rinderpest vaccination and, apart from that, healthcare monitoring, are frequent requests from groups of livestock farmers. Thus, they have constituted essential preliminary actions for the NGOs, because they were asked for by the beneficiaries, before humanitarian operations such as child vaccination campaigns (Sudan. Somalia). The benefit of integrating

this type of action into the lives of people living principally on livestock is clear and is linked to the multiple role of women.

The increase in livestock farmers' revenues, sparked off by an improvement in animal health as a result of the programme, is a very necessary supplementary factor for its integration into the socio-economic pattern and thus for the viability of the results of the project.

8.5. Protection of the environment

One of the fears that the programme legitimately gave rise to was whether it would lead to a degradation of the habitat (desertification) as a consequence of the overuse of natural grazing resulting from better health and therefore an increase in animal vitality. The fragility of the natural areas for traditional rearing, and notably the sahel, fully justifies this concern. This reticence was amplified by the general impression of a tendency by traditional rearers to systematically hoard their animals.

In general, it should be noted that herd sizes have not grown excessively in the sahelian countries since rinderpest was halted, which goes back in some cases over several decades. The number of cattle in these countries should, according to studies on the subject, and as far as one can estimate it, be almost the same as those during the 1960s. It seems to be climatic vagaries which have subsequently regulated the bovine population, between periods of crises (drought) and recovery.

This period was marked nevertheless by two periods of global phenomena, undoubtedly partially linked, in West and Central Africa : firstly, an important movement of cattle towards the wetter zones (cfr. Mali, Annex 5.3.) and secondly, an important change in the ownership of cattle. They would have been largely acquired by non-nomadic groups (farmers, businessmen, civil servants) during the dry years of the 1980s. For a large part of the herd, therefore, the grazing problems changed at the same time in terms of both ecology and rearing policy.

For that part of the herd which stayed in the traditional system, it is a mistake to think that there is a systematic approach increasing the stock. The stock on the hoof is mostly an attempt to find security in the face of the vagaries of rearing (drought, but also diseases, poisoning). Sometimes, it is merely waiting for a commercial opportunity. Only some large and rich owners can allow themselves to have an impressive amount of stock on the hoof, but that only involves a small part of the national herd. The recent devaluation of the FCFA was the opportunity to confirm this ; the devaluation was translated into an increase in exports of sahelian cattle of 60 % - 80 % in a year, according to the country. Such a phenomena

would be impossible if grazing was really motivated by business decisions directed towards hoarding for self-aggrandisement or personal whim. In contrast, it demonstrates that a commercial framework, and organised without question on an appropriately global scale, is necessary for a more intensive exploitation of the herd.

In the new areas with concentrated herds where the competition with agriculture for the land is stronger, in line with the attitudes of the new owners, and, eventually, to respond to the needs of a strongly growing population, livestock rearing will of necessity become more intensive. Such operations and investments can only be envisaged if they are relatively safe. In developing the essential health safety, the PARC programme is thus an important, indeed indispensable, link in the process of livestock intensification and indirectly the protection of open spaces.

For traditional rearers a better control of healthcare problems implies less need of stock to respond to pathological events.

Contrary to fears at the outset, the PARC programme, through the better health safety which it can produce, seems therefore to be an essential stage in the intensification of rearing and by implication to less exploitation of the drier and more fragile grasslands.

8.6. The institutional management capacity

The national components are now already run by National Co-ordinators experienced in the healthcare aspects and integrated into the public sector. The technical assistance at this level is in the form of advice or such new aspects as privatisation. In general, the institutional management capacity should not therefore be a limiting factor on the viability of these project components.

At the level of IBAR and the CU, things are different : for want of financial resources, the OAU has not been able to second the appropriate personnel to replace, at the end of its term, the technical assistance provided by the EU and the other funding agencies (cfr § 4.1.). Only, the Regional Ordinator and, since a few weeks ago, a sub-regional co-ordinator come under the OAU budget. This introduction in June 1996 of a sub-regional co-ordinator with OAU status was accompanied by a significant reduction in his remuneration, which bodes ill for what has been until now exceptional professional motivation of the CU staff if they have to work under similar terms.

The Co-ordination Unit therefore seems totally dependant on external funding and any interruption of this financing even temporarily leads as has been noted in the past to a halt

in activity, regardless of what stage has been reached and the effect on other components. Much thought has been given to the future of IBAR in terms of missions and its role in the future but this does not extend to other funding except in the form of projects with external funding. Basing the PARC programme at the heart of IBAR has created the opportunity, rare in development projects, for the exchange of information and the bringing together, through the intermediary of OAU, of the political authorities in the member countries with responsibility for the structural reform to be undertaken for the development of the sector. Despite this the Organisation of African Unity has not given priority to filling these vacancies in the programme. Its participation in funding the programme therefore remains minimal and there is very little chance that things can change significantly in the medium term.

Outside the co-ordination activities, the question of recurrent funding remains a problem for the majority of the CU's present components : epidemiology, communication, and economic analysis.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1. Eradication of rinderpest

The PARC programme has powerfully contributed, thanks to a effective strategy, to reducing the incidence of rinderpest in Africa. Since 1990, it has been possible to reduce animal losses and to reduce the risks of epizooties in the zones considered to be endemic. The installation of an epidemio-surveillance network, the support given to the control of vaccine quality and the results of research on rinderpest (thermostable vaccine, the role of wildlife) have been decisive factors in an overall greater efficiency, based on more flexibility in adapting to the evolution of the disease. However :

- the extension of areas of civil unrest into certain parts of the *cordon sanitaire*, the lack of control in certain countries (Kenya, Uganda, Somalia, Zaire) and the emergence of less virulent viral strains has allowed some contamination, still limited but nonetheless worrying, to spread to several countries on the edge of the 1990 endemic zone ;
- as a result, the present situation has allowed the appearance of new risks of varying intensities of contamination at the same time towards the West, the South and East of the endemic zone.

It is therefore essential to follow-up and intensify the fight against the disease until eradication has been achieved, without which the achievements of the programme will be irredeemably lost and for good. The new risks and the insupportable pressures on the old

system make one pessimistic about eradication. The efforts should be applied essentially to:

1. An improved understanding of the prevailing rinderpest situation in the countries where the disease is endemic or suspected ;
2. Conducting a detailed evaluation of the efficiency of the national services in terms of controlling the disease in the region ;
3. Strengthen the surveillance and intervention (vaccinations) in the endemic zones and in a much larger *cordon sanitaire* which takes into account all the new risk areas ;
4. Research in greater depth across the whole area on the risks from wildlife and the epidemiology of the less virulent strains recently evident and for which the wildlife could serve as an indicator ;
5. The extension of investigations and intervention to all the countries concerned, including the protection of others in which the political situation inhibits intervention.

In these cases, it is desirable that the CU should be able to eventually sub-contract its interventions, with the same objectives and duration, to organisations which do not have the same restrictions (FAO, Red Cross...) while retaining the overall co-ordination within IBAR.

9.2. The improvements in animal health care

The functioning of the existing epidemiosurveillance network is not yet satisfactory, whether this is the sampling on the ground or the exchange of information, so that the recommendations to stop vaccinations in a number of countries run increased risks to health. Moreover, the justification and the motivation of this network implies extending its use to other cattle diseases. This enlarged role implies new and strengthened capabilities which will constitute in the longer term the best guarantee of spotting new or exotic pathology phenomena. These networks should become the best protection for the neighbouring countries, and, if they are correctly integrated, the best guarantee of animal health for more distant regions, including Europe. Thus at this stage of development, PARC should :

1. reinforce and complete the national healthcare monitoring networks which should be considered a priority service to the livestock producers ;
2. put in place for West and Central Africa a capability, at the level of the Bamako sub-regional co-ordination office, to support epidemiosurveillance, bearing in mind the

specific characteristics of the area covered ;

3. to strengthen the information system in the form of reports and their standardisation, and create in Nairobi a data-bank on animal healthcare ;
4. to ensure better co-ordination and exchange of statistics with the countries of southern Africa in order to reinforce at the pan-African level the implementation of disease control strategies.

9.3. Improvement in public services

The progress made in this area to date is minimal. The programme insisted on the reform of policies relating to the financing of the services more than on their role and efficiency. The mission recommends that PARC insists more strongly in the future, in the framework of its dialogue with the countries, firstly on the necessary restructuring of the national services on the basis of concentrating their resources on certain of their current functions (See § 9.2 above) and, secondly, on a funding of the sector more equitably reflecting its importance in the national economy of the different countries. In this context, the systematic attempt, led by PARC, to have the services funded by the sector would not seem to be a priority and is often out of line with generally accepted practices of public financial management. Moreover, the effect of direct recovery of costs on the producers' performance still remains largely unknown and their interests could go, in certain cases, contrary to the results sought.

9.4. Privatisation of livestock services

The liberalisation of the importation and distribution of medicines has become reality in most countries, while the privatisation of services has developed more slowly than initially expected. The harmonisation of legislation is often still to be completed ; even where it is a necessary precondition of the process it is not enough, indeed far from it, to reassure practitioners in the face of fraudulent practices. In terms of general policy however, the double process of liberalisation and privatisation seems to be accepted by all the Governments. Where these private services are in place they are seen to be clearly more effective than the public services in terms of costs and the quality of what they do.

It is evident, today, that privatisation can only be developed on an entrepreneurial basis and by taking account of the local real-life requirements for their financial profitability. Thus one cannot expect to see complete veterinary coverage of the livestock areas because some of them are not attractive from a financial point of view if based solely on the classic veterinary practice of clinical services and the sale of medicines

The delegation of certain public service tasks (health mandates) is an effective method of accelerating this process, but provides only relative security to the private practitioner because they can be terminated and often have uncertain funding. Other activities run in parallel, production or commercialisation, could in certain cases complement veterinary practice by improving the profitability of the businesses created ; however these activities seem to be systematically ruled out by the aid given by the project.

The activities undertaken by PARC in this sphere would benefit, therefore, by being rationalised in a commercial structure, and not as a substitute for funding the public sector. In the future it would be necessary to re-focus the PARC activities by being more systematic about using lending and management capabilities rather than only animal health ones.

On the hand it is now imperative to give some consistency to the methods of promoting privatisation and to re-focus the aid given towards the objective of the type of better service sought by the livestock farmers.

In a simplified political context, taking into account the particular circumstances and different stages of development in each country, the regional character of these components would no longer be essential. The regional impact of the process would appear weaker where the vaccination campaigns are stopping and where the epidemiosurveillance is strengthened within the public sector. These components would doubtless gain in terms of involvement by the governments in obtaining national funding (NIP) from the EU. For all that it is worth keeping the regional character of the consultation/exchange of experiences and communication which is presently in operation.

9.5. Organisation of the programme

With such continent-wide objectives, the siting of the Co-ordination Unit at the heart of the OAU/IBAR enabled it to benefit from an important political support because it was essential to the development of the programme. The PARC method, based on political agreement, dialogue and consultation, showed itself to be adequate and the complementarity between the regional programmes managed by the CU and the national programmes whose management was decentralised, was opportune. It should be noted that the mandate given to IBAR by the OAU is far wider than the functions attributed to the CU, which were essentially focused on animal health but which, on their own, justify such a supra-national co-ordination.

The CU is moreover, since the last agreement, equipped with the tools which would seem necessary to the job. In parallel, it should be noted that EU finances, both within and out with IBAR other regional programmes which are interesting from the animal health point of view

The PARC method was seen to lead to very long delays in implementation and a staggering in timing which harms the consistency of the programme's execution. The components, either CU or national, have themselves varying durations, sometimes exceeding the co-ordination support planned until June 1997 ; this in itself raises problems about their follow-up. Finally, the sub-contracting to other agencies of the execution of certain essential CU components leads to administrative difficulties and discontinuity which magnifies the lack of homogeneity in the timing of the implementation of these components.

The programme no longer has available at a central level the financial capability for emergency intervention ; only some countries have provided for this in their national components. And yet, for controlling rinderpest, the governments are strongly dependant on each other, regardless of whether they are the focus for the moment of a PARC component. What is more, the halt which has been recommended to vaccinating in several countries in West and Central Africa adds to the risk of emergency intervention in these regions. However much such a situation must be deplored, it is essential, as much for the countries as for their neighbours, that intervention can be carried out very quickly, and much more quickly than would be possible with the usual delays in mobilising funds within the EU.

The mission recommends that the Co-ordination Unit should stay within IBAR and that its activities should be concentrated on those areas which are relevant to its capabilities and have a real need of regional co-ordination, to wit animal healthcare. The mission considers that this role should be extended to other animal pathologies and, for those which justify it, to the whole continent. It would seem desirable, moreover, to seek at the EU level a better integration of the management of the various regional animal healthcare programmes because stronger co-ordination of these programmes would allow for a greater synergy amongst the resources already in use. Finally the programme execution would gain greater consistency from greater autonomy of execution by the CU through a more direct management role in its components.

The creation of an emergency fund, in currency and at the disposal of the CU, is also recommended for rinderpest. Such a fund could be managed by the Regional Controller, who would respond to the appeals of individual countries via a request from their delegation as well as on the advice and under the control of the CU epidemiology unit. As mentioned before (§ 9.1), the Regional Ordonator would have to have the possibility of resorting to outside agencies for implementation. Finally the permanence of the emergency fund could be guaranteed if any countries who had received help were to replenish the common fund from their NIP, once the usual procedure for mobilising the funds allowed them to.

9.6. Management and follow up of the programme

The management and the technical follow-up of the programme's components has been done by the Co-ordination Unit and to date to the satisfaction, in general, of the EU delegations as much as to the national co-ordinators. This organisation, which is built essentially on individual relationships, is guilty, in the eyes of the mission, of a certain lack of administrative rigour. This is shown in the insufficient amount of systematic statistics on the progress of the project in the countries, the absence of regular reports on the operation of the national components and faulty consultation in the planning of CU activities. This aspect of follow up, which is doubtless linked in part to the limited number of participating people at the CU, causes concern about a certain amount of vulnerability in the management system. Moreover, the absence of a cell for follow-up evaluation and the fact overall programme evaluations are too spread out does not enable adequate control to be had by those responsible at the EU, nor for any compensation for these drawbacks to be made at the level of the CU.

In light of the expansion of allocations which is proposed above, the mission recommends that the CU should be complemented by a "Steering Committee" on which could be found adequate technical skills ; such a committee could be expanded to other fund providers involved, something which would strengthen the CU's role of funds co-ordinator for animal healthcare. It would have as its primary task the regular technical follow-up and the definition of the CU's policies of intervention.

The mission similarly recommends that the CU designs and implements a more systematic system of programming and reviewing activities as well as follow-up in the countries concerned, whether or not they are the object of a current national component.

It is also recommended that the economic evaluation procedures which are being perfected at present should be complemented by the systematic consideration of the impact at the level of livestock farmers.

Finally, it is not at all clear that it is worthwhile to have frequent global evaluations of the routine running of a programme which is of such breadth and long duration. On the other hand, the "Steering Committee" should, of necessity, rely on periodic, short evaluations of one or other component, as needed, and on a continual basis.

It is therefore recommended that the "Steering Committee" should have an ongoing agreement with an external organisation for running these such evaluations, as they may require for the preparation of meetings.

From the point of view of funding, the introduction since 1993 of funds which issue from the National Indicative Programmes in parallel with those of the Regional Indicative Programmes has made possible a greater involvement by the countries and the Delegations in the financial management of the national projects. Nonetheless a heterogeneity has been noted, sometimes contrary to this involvement, in the use of funds thus allocated. The redefinition of PARC's tasks and of matters of a regional responsibility, animal healthcare and epidemiosurveillance, should be the occasion for a new and systematic split between the regional and national budgets. The pre-1993 funding needs a consolidation of accounts, before the preparation of subsequent funding, in order to determine the eventual balances.

9.7. Durability and financing of the programme

The experience acquired and the results obtained show that the realisation of essential objectives necessitates the continuation of the efforts undertaken : the eradication of a disease such as rinderpest is a long and drawn-out operation. Strengthening the healthcare surveillance networks and their operations also represents a long term effort. Privatisation is still in its early stages. It would, therefore, be unthinkable at this stage to discontinue the programme's funding, because it would risk the loss of all that has been achieved to date.

It must be said that it is not realistic, in the medium term, to hope to find the funding of these activities within the OAU or from the recipient countries. One must also recognise that the difficulties of a number of countries in meeting their obligations are in part due to the unfavourable state of the market for livestock products which is linked to the import of subsidised products. The mission recommends therefore that the EU provides this funding while foreseeing a study of an eventual substitution mechanism at such time as it becomes possible to make more profitable the framework within which African livestock functions.

Moreover, the procedure for preparing a funding a programme is such that the CU would necessarily recognise such a break. The mission recommends from then on an alternative financing for the CU's liaison role in order to permit it to prepare and present a new phase of the project, based on discussions following the evaluation. A delay of 18 to 24 months would be necessary and the corresponding funding has been estimated at 2.1 to 3 million ECU, taking into account the current components.

9.8. Evaluation needs

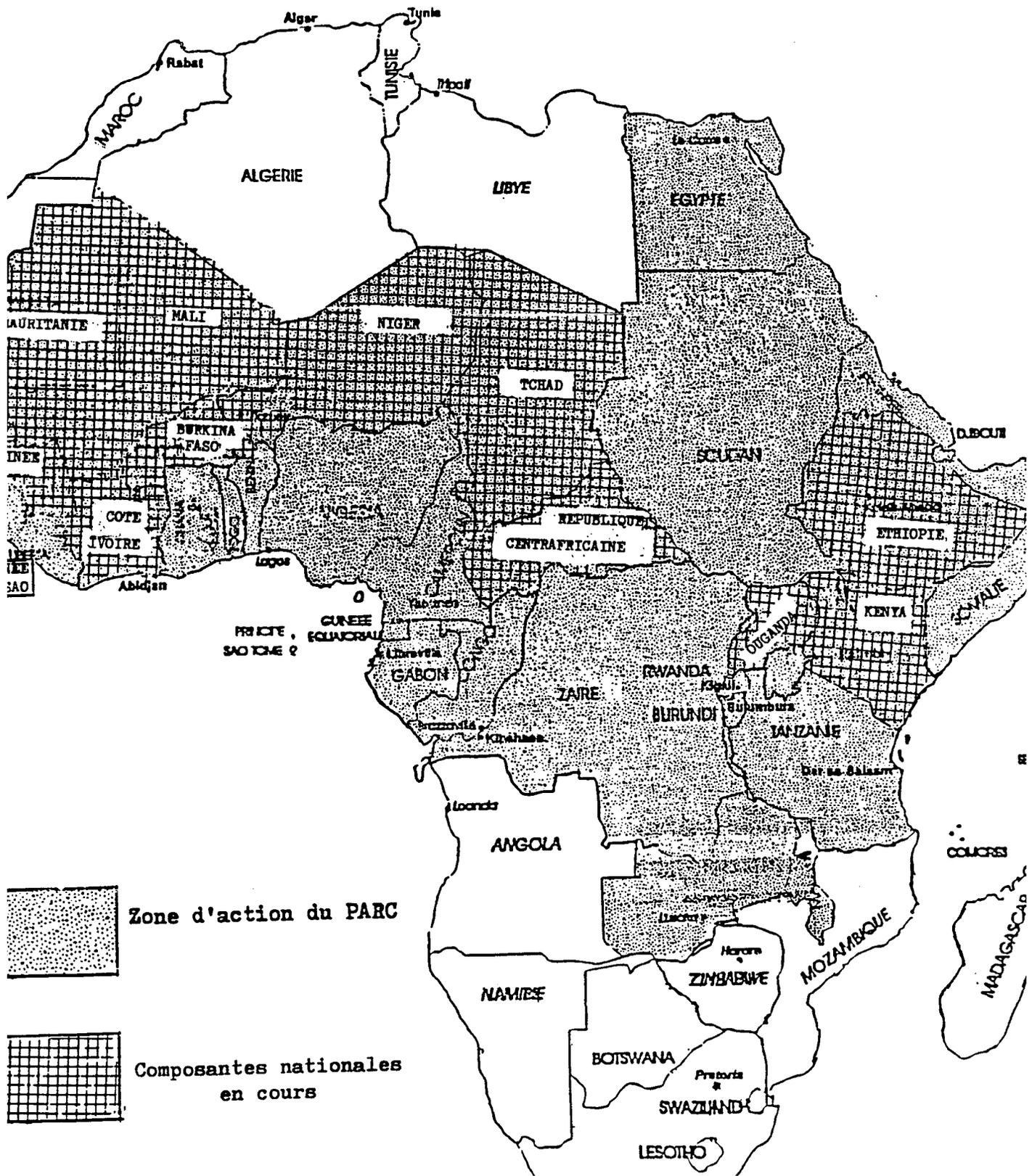
This pre-evaluation has been done in order to examine the role of PARC in the development of the livestock sector, as set out in the terms of reference. Other fund providers, with whom PARC works in synergy on policy and the development of the sector, have been through a

similar process. In the light of these observations, the mission recommends that at the regional level there should be a re-focusing and increased development of activities related to animal healthcare. The mission has, moreover noted that the tools for follow-up and monitoring at the global level (components for economic support, standardising and regularising information) are presently only at the stage of being created. In consequence the evaluation of one or other of the national components would come, in part, outside PARC's future sphere of action, and would seem to be less of a global interest and to be more a national concern.

The mission recommends instead, in light of the objective of the project, a detailed analysis of the current situation of rinderpest and the fight against it in East Africa. (§9.1). The terms of reference for such a project are summarised in Annex 5.8

Finally, as indicated, the future "Steering Committee" should have at its disposal an appropriate capability for external evaluation, to be divided according to the needs of the project's progress.

ANNEXES



ANNEXE 2

Termes de référence

1. TACHES A ACCOMPLIR

1.1. Objectifs de l'évaluation

L'évaluation en objet ne considère pas le Programme PARC dans son ensemble, mais doit être considérée comme une première phase d'une activité qui sera complétée par les évaluations des composantes nationales. Cependant, il sera nécessaire de se concentrer sur les éléments suivants :

- l'approche globale du Programme PARC et la complémentarité entre composantes régionales et nationales ;
- le cadre épidémiologique de la PB ;
- le rôle du Programme dans la mise en oeuvre des actions de développement de l'ensemble du secteur élevage ;
- la fonction de coordination de l'OUA-IBAR et des structures régionales.

Le consultant devra analyser l'efficience et l'efficacité du programme PARC au-delà des aspects strictement liés à la PB. Dans ce sens, sans entrer dans les détails de chaque composante nationale, il tiendra compte du contexte général et spécifique dans lequel a été mis en oeuvre le programme.

Pour ce faire, des visites de terrain seront réalisées dans les pays suivants :

Kenya : Siège de l'OUA-IBAR, de l'UC et d'une de ses représentations sous-régionales, de l'ILRI (composante d'appui économique), des composantes de communication et épidémiologique ; pays inclus

Ethiopie : Pays connaissant encore des foyers de PB ; base du PANVAC.

Zimbabwe : Pays indemne de PB, centre de la mise en oeuvre d'autres financements sous-régionaux du secteur élevage (trypanosomiase, recherche).

Mali : Pays indemne de PB où l'élevage est d'une grande importance socio-économique à l'échelle nationale, siège de la deuxième représentation sous-régionale de l'UC.

Tchad : Pays du cordon sanitaire où l'élevage est une ressource nationale majeure.

Ces visites de terrain seront précédées par une analyse documentaire et d'entretiens approfondis avec les responsables du PARC à la DG VIII à Bruxelles. Si nécessaire, la collecte des informations sera complétée avec une mission à Paris, siège d'une des composantes de recherche.

1.2. Conception du projet et analyse du contexte

La cohérence et le réalisme du programme seront analysés en tenant compte du contexte général de la politique du secteur de l'élevage mise en place dans les pays concernés par le programme même.

Dans ce cadre, la cohérence entre les objectifs du programme, l'accord entre la CCE et l'OUA et les composantes nationales devront être considérés.

Le consultant remettra un inventaire des différentes actions financées par le Programme et des composantes nationales.

1.3. Efficacité et efficacité

L'analyse de la relation entre activités et résultats, les éléments qui caractérisent l'efficacité du programme seront considérés en tenant compte :

- de l'organisation interne et l'efficacité de la structure de coordination, soit pour les fonctions centralisées au niveau de l'IBAR, soit pour l'UC et ses antennes sous-régionales ;
- de la gestion financière de la mise en oeuvre du programme ;
- des modalités d'administration des financements FED au niveau global, régional ou national ;
- de l'efficacité des procédures de travail et de concertation déployées par l'UC, et de la perception qu'en ont ses interlocuteurs directs (services nationaux, Délégations de la Commission, partenaires, sous-projets associés) ;
- des systèmes de suivi du programme, aux différents niveaux de l'UC, des deux unités sous-régionales et des différents pays.

L'analyse de l'efficacité tiendra compte des résultats obtenus par rapport aux objectifs spécifiques du programme. L'analyse sera centrée essentiellement sur:

- a. L'état actuel de présence de PB dans les pays d'intervention, les résultats obtenus dans le cordon sanitaire et l'efficacité du système de surveillance de l'épidémie,
- b. Les résultats obtenus dans l'amélioration des services nationaux de santé animale par rapport à :
 - l'évolution des budgets des services ;
 - le niveau de recouvrement des coûts des services, des mécanismes de collecte et d'utilisation des recettes ;
 - la définition des rôles Etat/privé ;
 - la surveillance épidémiologique dans les différents pays concernés ;
 - la capacité d'interventions en cas d'urgence ;
 - l'évolution des structures des soins de santé de base, et des dépôts de médicaments privés ;

1.4. Conclusions et recommandations

Sur la base des différents éléments collectés, le consultant dressera des

mentionnés ci-dessus.

Des recommandations ponctuelles seront formulées aussi bien sur la coordination générale du Programme PARC que sur le système de suivi au niveau de la coordination centrale, des coordinations régionales, et pour ce qui concerne le rôle des Délégations de l'Union Européenne.

Sur la base des résultats de l'évaluation, et en coordination avec les Délégations et les Services de la DG VIII, le consultant identifiera les pays prioritaires dans lesquelles seront réalisées les évaluations des programmes pays. Il proposera aussi un projet de termes de références pour cette évaluation.

2. ORGANISATION DU TRAVAIL

Le travail sera basé sur une série d'entretiens avec les différents partenaires et opérateurs du PARC. Une participation du consultant à une réunion de coordination sous-régionale du PARC serait très utile. A cet effet, la réunion de Dakar en juin 1996 constitue à ce propos une bonne opportunité.

Ces entretiens seront complétés par une évaluation documentaire à Nairobi de l'UC, ainsi que des résultats des différents pays concernés.

Outre les travaux d'évaluation et les recommandations générales pour le secteur élevage, le consultant prendra en considération la persistance du risque particulier que représente la PB. Une visite approfondie des opérateurs du PARC sera conduite dans un pays encore atteint et dans un pays du cordon sanitaire.

Le travail de terrain comprendra une visite dans les pays suivants :

Kenya : Siège de l'OUA-IBAR, de l'UC et d'une de ses représentations sous-régionales, de l'ILRI (composante d'appui économique), des composantes de communication et épidémiologiques ; pays inclus dans le cordon sanitaire pour la PB.

Ethiopie : Pays connaissant encore des foyers de PB : base du DANVAC

Zimbabwe : Pays indemne de PB, centre de la mise en oeuvre d'autres financements sous-régionaux du secteur élevage (trypanosomiase, recherche).

Mali : Pays indemne de PB où l'élevage est d'une grande importance socio-économique à l'échelle nationale. Siège de la deuxième représentation sous-régionale de l'UC.

Tchad : Pays du cordon sanitaire où l'élevage est une ressource nationale majeure.

Ces visites de terrain devront être précédées d'une analyse documentaire et d'entretiens approfondis avec les responsables du PARC à la DG VIII à Bruxelles. Au retour, le consultant complétera ses informations à Bruxelles et si nécessaire à Paris (siège d'une composante de recherche).

On effectuera une présentation synthétique de ses observations aux responsables du PARC à la DG VIII, pour avis et commentaires, une semaine après le retour du terrain, avant la rédaction de son rapport final.

ANNEX 3

LIST OF PARTICIPANTS

CENTRAL AFRICAN REPUBLIC (during a previous mission)

- Dr KLOTZ : T.A., Technical Adviser for the component 1 (animal health).
- Dr MERCY : T.A., Technical Adviser for the component 2 (mutualist animation).
- Mr BERKOUTOU : General Manager of the National Agency for Livestock Development, National Coordinating Officer of PARC.

CAMEROON (during a previous mission)

- Mr LEUNDA : Technical Adviser at the European Union Delegation, in charge of the PARC programme follow up.
- Dr SAIBOU : PARC National Coordinating Officer.

C.C.E./BRUXELLES

- Mr DAVERSA : DG VIII - Evaluation Unit / A6.
- Mr DALE : DG VIII - Senior Livestock Officer ; previously responsible of the PARC programme.
- Mr PIRONIO : DG VIII - G3 - Technical Adviser.
- Mr REITHINGER : DG VIII - Head of G3 Division.
- Mr SATTLER : DG VIII - C2 - In charge of the financial follow up of PARC.
- Mr CARREAU : DG VIII - G3 - Technical Adviser.

OTHERS

- Dr GEIGER : Technical Assistant FAO/AIEA, epidemiologic component.
- Dr SAWADOGO : CEDEAO - In charge of livestock productions department.
- Dr TULASNE : EMVT/France - In charge of the research on the foot and mouth disease.
- Various participants at the Dakar meeting.

CO-ORDINATION UNIT OF NAIROBI / IBAR

- Dr DOMENECH : Technical Assistant, particularly in charge of Western and Central African countries.
- Dr TOMPSON : Technical Assistant, particularly in charge of Eastern African countries.
- Dr MASSIGA : IBAR Director ; PARC Regional Authorizing Officer.
- Dr SOLOMON : Sub-regional Coordinating Officer for Western Africa.
- Dr ROSITER : Technical Assistant of the epidemiologic component.
- Mr D'HUYS : Senior Technical Adviser of the communication component.
- Mr MUKHEBI : ILRI, Technical Assistant of the economical component.
- Dr LEYLLAN : UNICEF Officer for South Sudan.
- Mr LUER : European Union Delegate in Somalia.
- Dr KABONTO : Tsetse fly component Officer.
- Dr POLITZAR : Technical Assistant for Tsetse fly component, previous PARC Technical Assistant.
- Mr AGUFAR : Administrative Officer IBAR.
- Mr KIARE : Accountant IBAR.

SUBREGIONAL CO-ORDINATION AT BAMAKO

- Dr SIDIBE : Subregional Coordinating Officer.

SENEGAL

- Dr NIANG : Livestock Director.
- Mr BOLLY : Technical Adviser at the European Union Delegation, in charge of PARC.
- Mr VAN HAVERBEKE : European Union Representative.
- Dr DIOP : PARC National Coordinating Officer.
- Dr ROUILLET : PRODEC Director.
- Mr DAFPE : Credit Officer at the CNCA.
- Dr GUEYE : President of the Private Veterinary Officer Union.
- Mrs AKBAGLA : Account Officer at the European Union Delegation.

MALI

- Mr SCHADEK : Adviser at the European Union Delegation.
- Dr DAMBELE : Representative of the Order in the Privatization Backstopping Unit.
- Dr DRAMANE BAGAYOGO : Privatization Backstopping Unit Officer.
- Dr ADAMA SEMAKE : Communication component Officer.
- Mrs ONGOIBA HADIZA : Private Veterinary Office.
- Dr DIAKITE : Private Veterinary.
- Dr MODIBO KOUEYATI : Private Veterinary.
- SIPROVET : Wholesaler in Veterinary Products.
- Dr MADY KEITA : Private Veterinary.
- Dr LASSINA DAMBIRO : Private Veterinary.
- Mr FONTANA : Adviser at the European Union Delegation.
- Dr KEITA : Livestock National Director.
- Dr WAGE : PARC National Coordinating Officer.
- Dr SOLEMANE FOFANA : Animal Production Division.
- Mr DJIBRIL TRAORE : Pastoral Hydraulic Division.
- Dr MAHAMADOU TOURE : Animal Production Division.
- Mr ABOUBAKARE MAIGA : Pastoral Hydraulic Division.

TCHAD

- Dr HENDRICKS : Technical Adviser at the Farcha Laboratory.
- Mr DURAZZO : Technical Adviser at the European Union Delegation.
- Mrs MORIN : Technical Adviser for the PARC component 2 (veterinary services privatization).
- Dr GOUDJA : PARC national Coordinating Officer.
- Dr IDRIS ALFAROUK : Director at the Farcha Laboratory.
- Mrs DIGUIMBAYE : Serowatching Officer at the Farcha Laboratory.
- Mrs CASU : Technical Assistant for ASETO project.
- Mr SMETS : European Union Representative.
- Mr PORNAYE : Account Manager at the European Union Delegation.
- Mr BOUYER : Technical Adviser at the DOP.
- Mr CAMAN BEDAOU : DOP Director.
- Mr ISSAKA OUSMANE : Livestock Development Fund Manager.
- Mr THONNAT : Technical Adviser at the DEFVRZ.
- Dr ADAMOU AMADOU : General Inspector at the Livestock General Direction.
- Dr MAMINI : Dope Principal Technical Adviser

- Dr ALLAYAM RAGANTA : Private Veterinary.
- Dr BIRHARA E.H. AKABA : Private Veterinary.
- Dr ADIL BECHIR : Private Veterinary.
- Dr IBRAHIM KABOUL : Private Veterinary.
- Dr NGARTOLA GABAROUA : Private Veterinary, President of the Chadian Private Veterinaries Union.
- Dr CHARRAY : Adviser of the Livestock Minister.
- Mr DELKASSIT MAHAMET : SAPROVET General Manager (importation of veterinary products).
- Dr MAMAHADEVAT : SAPROVET Technical Adviser.
- Mr ADAM BRAHIM : Administrative and Finance Services of Livestock Ministry.

KENYA

- Dr VIALATTE : Technical Advisor at the European Union Delegation.
- Dr KOCK : Kenyan Wildlife Service.
- Dr KIMANZI : Livestock Director.
- Dr BENGAT : Livestock Deputy Director.
- Dr MUYENGO : PARC Coordinating Officer
- Dr THUMBI : Private Veterinary.
- Dr NDENGERA : Private Veterinary.
- Mr OKWIRI : KVA, Privatization Support Component Officer.

ETHIOPIA

- Dr TEMESKE : PARC Coordinating Officer.
- Dr ABEBE : Animal Health Director.
- Mrs ADHERA : Animal Resources Director.
- Dr BERHANU : Epidemiologic Unit Officer.
- Mr TEGENGE : Foddercrops Unit Officer.
- Mr BASA : Communication Unit Deputy Officer.
- Dr MARINER : Technical Assistant Team Leader.
- Mr GEBEYE : Communication Unit Deputy Officer.
- Dr SOLOMON : Technical Assistant for the Privatization Component.
- Mr TADESE : Privatization Component Consultant.
- Dr MOLOGETO : Previous PARC Authorizing Co-officer, Private importer of veterinary medicine.

- Dr TESFAYE : Debre Zeit Laboratory Director.
- Dr ANTONYO : Vaccine production Officer at Debre Zeit.
- Dr MEBRATU : Vaccine Research Programmes Officer at Debre Zeit.
- Dr SYLLA : Senior Technical Adviser at the PANVAC.
- Dr LITAMOI : Expert at the PANVAC.
- Dr SENTAYEHU : Central Diagnosis Laboratory Director at Sebeta.
- Dr A. GOPILO : Virology Unit Officer at the Sebeta Laboratory.
- H.E. GETACHEU TEKHEMEDHIU : Deputy Minister of Agriculture.
- Mr BRANKAERT : Deputy Delegate of the European Union.

ZIMBABWE

- Mr RUNGE-METZGER : Adviser at the European Union Delegation.
- Dr PURVES : Director at the Price Waterhouse, Appraisal Team Leader of the Southern Africa Tsetse fly Programme.
- Dr CONNORS : Regional Coordinating Officer of the Southern Africa Tsetse fly Project.
- Dr OWOLO : Veterinary Sciences Department Dean at the University of Zimbabwe.
- Dr WOOD : Deputy Dean.
- Dr HOVE : Acting Deputy Dean.
- Dr IRVIN : Regional Coordinating Officer of the FAO programme for ticks and diseases transmitted by ticks.
- Dr HARGREAVES : Director of the Veterinary Services.
- Dr HANSELL : ODA Senior Technical Adviser for Natural Resources in Southern Africa.
- Mr SWIFT : President of the Commercial Farmer's Union.
- Dr GRANT : Adviser at the Commercial Farmer's Union.
- Mr AMYOT : Deputy Director, Commercial Manager of the Farmer's Union.
- Dr CHETA : Officer in charge of the Epidemiology Department of the Veterinary Services.

ANNEX 4

CALENDAR OF THE MISSION

- 28 and 30 May : Documents at the DG VIII - Brussels ; Briefings with Mr and Mrs DALE, PIRONIO, DAVERSA, DOMENECH, REITHINGER, SATTLER, CARREAU.
- 03 June : Flight Brussels-Dakar ; questionnaire preparation on the national components ; documentation.
- 04 June : Dakar Conference ; meeting with various national authorizing co-officers of PARC ; documentation on Senegal.
- 05 June : Dakar Conference ; meetings with Mr and Mrs DAFPE, ROUILLET, BOLLY, GEIGER ; documentation on Senegal.
- 06 June : Dakar Conference ; PARC account analysis at the European Union Delegation ; meetings with Mr and Mrs DIOP, GUEYE.
- 07 July : Dakar Conference ; meetings with Mr and Mrs DOMENECH, VAN HAVERBEEK, Mrs AGBAKLA.
- 08 June : Meeting with Mr SCHADEK ; flight Dakar-Bamako ; documentation on Mali.
- 09 June : Visit of the 4 private veterinary units at Bamako ; documentation on Mali; meetings with PARC officers.
- 10 June : Meetings with Mrs WAGE, SIDIBE, FONTANA ; meeting at the DNE.
- 11 June : Meeting with Mr WAGE ; flight Bamako-Abidjan ; documentation.
- 12 June : Flight Abidjan-Ndjamena ; documentation on Chad.
- 13 June : Meetings with Dr GOUDJA, Farcha laboratory team, Mrs MORIN and CASU ; documentation on Chad.

- 14 June : Meetings with Mrs DURAZZO, SMETS, PORNAYE, GOUDJA, ISSAKA ; general meeting at the Ministry ; meetings with DOP and DEFVRVZ ; documentation on Chad.
- 15 June : Meetings with Mrs CHARRAY, GOUDJA, DURAZZO, SAF ; meetings with private veterinaries and with the SAPROVET.
- 16 June : Flight Ndjamena-Addis Ababa-Nairobi.
- 17 June : Meeting at the European Union Delegation (Mr REITHINGHER, PIRONIO, VIALATTE).
Meetings with Mr DOMENECH, TOMPSON, SOLOMON.
- 18 June : Meeting with Dr MASSIGA ; PARC Presentation / Review.
- 19 June : PARC Presentation / Review ; general documentation.
- 20 June : Arrival of Dr P. BLANC ; synthesis with Dr BLANC ; PARC Presentation/Review ; meetings with Mr KIMANZI, BENGAT, MUGEGENYU, TOMPSON, DOMENECH, VIALATTE.
- 21 June : PARC Presentation / Review ; visit to the World Bank Office ; IBAR documentation.
- 22 June : Visit of 3 private veterinary units ; meeting with Mr OKWIRI.
- 23 June : General Documentation.
- 24 June : Documentation at the Delegation ; meetings with Mr TOMPSON, MASSIGA, DOMENECH, BENGAT, SOLOMON ; IBAR administration
- 25 June : Flight Nairobi-Addis Ababa ; meetings with MARINER, TEMESKEN, ABEBE ; documentation on Ethiopia.
- 26 June : Meetings with Mrs ADHERA and Mr BERHANU, TEGENGE, BASA, SOLOMON, TADESE ; documentation on Ethiopia.
- 27 June : Visits to the laboratory of Debre Zeit and to the laboratory of PANVAC
Meetings with Mr BRANKAERT, TEFAYE, ANTONYO, MERRATI

SYLLA, LITENOI.

- 28 June : Visit to the diagnosis laboratory of Sebeta ; meetings with Mr SENTAYEHU, GOPILO, the Vice Minister, TEMESKE, MARINER, Mrs ADHERA.
- 29 June : Vol Addis Ababa-Harare.
- 30 June : Synthesis on PARC.
- 01 July : Meeting at the Delegation ; discussion with Mr PURVES, RUNGE-METZGER ; documentation on Zimbabwe.
- 02 July : Discussion with Mr CONNOR ; meeting at the Zimbabwe University.
- 03 July : Discussions with Mr HANSELL, HARGREAVES, IRVIN.
- 04 July : Meeting at the "Cattle producers association" ; discussion with Mr MORTENSEN, CHETA.
- 05 July : Synthesis meeting at the European Union Delegation ; flight Harare-Johannesbourg-Brussels (arrival : 06 July).
- 17 July : Presentation of the memorandum and discussion on the conclusions with Mr REITHINGER.
- 22 July : Mr BLANC Departure.

ANNEX 5.1.

THE FIGHT AGAINST RINDERPEST

1. THE NATURE, SYMPTOMS AND TRANSMISSION OF THE DISEASE

Rinderpest is a contagious viral disease which is frequently fatal and behaves epidemically. It principally affects ruminants, domestic and wild. Although it disappeared from Europe in the last century, it has persisted to the present day in an endemic form in Asia and also in Africa, where it was introduced in about 1880.

In clinical terms, the disease starts, after an incubation period of 5 to 10 days, by causing pyrexia accompanied by agitation and depression, an increase in the respiratory rate, the appearance of lachrymal discharges, and serious spurring from the nose and the mouth which is initially clear and becomes muco-purulent. The animal shows signs of anorexia and of rumination difficulties which are accompanied by constipation and mucal congestion. The production of cows in lactation is strongly affected. After 2 to 5 days there appear the signs of erosion and of mucal necrosis varying from the size of a pinhead to a coalescent mass. These lesions begin on the lower lip and the gums and progressively spread to the internal papilla of the cheeks, the underside of the tongue, the palate and even, on occasion, to the nasal and urinary-genital mucuses. Foul-smelling diarrhoea mixed with blood, mucus and bits of epithelium, and often expelled explosively, is observed at the same time as the erosion of the mucus. These symptoms generally develop during a week at the most and normally end in the death of the animal. If the animal survives, the convalescence may stretch out for several weeks.

Infection from one animal to another is effected by direct contact in the pastureland, around watering points, in the markets and the cattle pens when the animals return for the night. In addition the discharges from individual sick animals may infect vulnerable animals. Unprotected herds can suffer very serious losses, which can spread to virtually all the animals in a herd, and there is no specific treatment for the disease.

2. DIAGNOSIS OF RINDERPEST AND THE CONTROL OF OUTBREAKS

In the field, the diagnosis of the disease is based on recognising the symptoms mentioned above. The first indications tend to be diarrhoea accompanied by mortality, with subsequent

investigations showing evidence of the necrotic lesions and pyrexia. The discovery of such clinical signs on bovines or buffaloes should lead to an initial conclusion that there is an outbreak and to mobilising immediately the actions which are necessary to confine it. The first diagnosis should be confirmed immediately by sending adequate samples, suitably chilled, to the laboratory. These samples should be taken from several ill or dead animals and could be lachrymal secretions, gum scrapings, ganglions, spleen, lesions and blood. The laboratory diagnosis can draw on several techniques. The most current techniques rely on the detection of antigens created by the virus (AGID or ELISA by collecting of the antigen), the isolation and identification of the virus, or the presence of antibodies to the disease in the serum (Virus Neutralisation Test or ELISA on monoclonal antibodies). Other tests, such as molecular or immunohistological techniques, although sometimes more sensitive, require specialised equipment and skills. Recently it has become possible, at last, to trace the different types of rinderpest virus and establish the phylogenetic relationships which exist between different strains encountered in the field. This information is clearly important in tracing the origin of outbreaks.

3. THE STATUS OF RINDERPEST IN AFRICA AND THE DEVELOPMENT OF COUNTERMEASURES

Since its introduction in the last century, the disease has killed, in some parts of the continent, something like 80 % of the ruminants, both domestic and wild. It has disappeared from southern Africa where the losses had been unquestionably the most severe at the beginning of the century. However the disease remained a major problem in all of tropical Africa, where the fight against the organisms which are responsible for it was to constitute the principal activity of the health services up the 1980s.

The methods of combating the disease were for a long time limited to controlling the movements of cattle and to administering a vaccine known as "goat pest vaccine" which was made on the spot from the serum of goats. Things became easier in the 1950s with the introduction of an attenuated vaccine made from a tissue culture. With the arrival of modern techniques of pasteurisation and the introduction of more economic techniques for tissue cultures it became possible during the 1960s to produce extremely effective vaccines at a low price and so make possible the idea of mass vaccination programmes across the continent.

From 1962 to 1976 there was a regional campaign of vaccination against rinderpest called Joint Project 15 (JP15). This project sought to progressively ensure, in three successive phases, that there was as complete a vaccine cover as possible in 22 countries of West Africa (1962 to 1967), Central Africa (1966 to 1971) and East Africa (1969 to 1976). The result

of JP15 was to allow the disease to be controlled, but unfortunately to leave at the end of the project pockets of infection which were still active in West Africa (parts of the interior delta of the Niger) and in East Africa (Sudan, Ethiopia, Uganda). With the decline of veterinary activities in the field, the level of immunity also declined and a new pandemic of the disease swept anew across equatorial Africa from 1978 to 1983, killing yet again hundreds of thousands of domestic and wild animals from Mauritania to the Sudan. Nigeria and Chad were the countries most seriously affected. Campaigns of emergency vaccination organised in the majority of countries from 1978 to 1985 with the help of various sources of funds (FAO, EU, France, World Bank, ODA, USAID...) enabled a stop to be put to the spread of the disease. However it had become evident that only a co-ordinated campaign at the regional level could ensure effective control of the disease, and indeed some hope of eradicating it.

4. THE PANAFRICAN RINDERPEST CAMPAIGN (PARC)

This campaign had been in preparation during the first part of the 1980s. An initial funding programme was finally approved by the European Union (EU) and an agreement signed between them and the Organisation for African Unity (OAU) in July 1986 for 50 million ECU. This was followed by other funding agreements in 1990, 1993, 1995. The programme is based on a two pronged approach, regional and national, combining the activities of a Co-ordination Unit, located in the Interafrican Bureau of Animal Resources (IBAR) of the OAU, and national projects negotiated individually with the countries wishing to participate in the programme.

Although various forms of vaccination were incorporated at the outset in most of the national projects, the principal objective was stated to be the revitalisation of the national breeding support services. This was considered an essential prior condition for the eradication of rinderpest. The fight against the disease thus became the excuse for modernising the public services, to make them more financially independent and to improve their efficiency by substantial reforms of policy and structure.

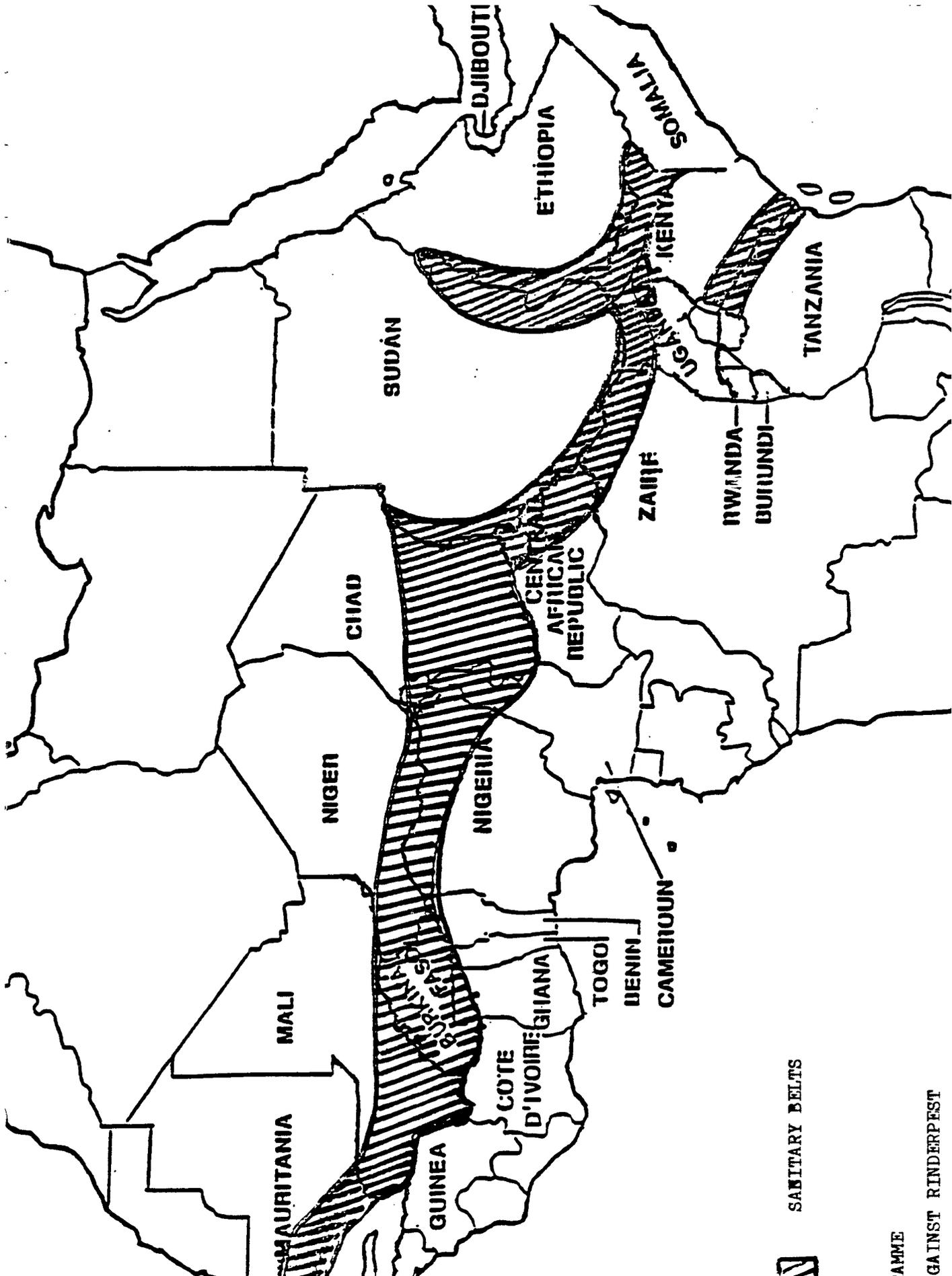
4.1. Evolution of the PARC programme strategies for fighting rinderpest

4.1.1. The initial PARC strategy

The PARC strategy was, at the outset, to institute a mass vaccination coverage in the countries where the disease was endemic and to move towards the eradication of the condition by campaigns for eliminating the virus. These campaigns would be supported, if necessary, by activities to control the movement of cattle, the quarantine of suspect animals

and the slaughter of infected animals. The main elements of the initial PARC strategy were:

- **The creation of higher levels of immunity in four *cordons sanitaires*** (see plan) intended to cover :
 - the Cameroon-Chad block in order to protect West Africa from the enzootic zones of East Africa ;
 - a West African wall stretching along Northern Nigeria, South-West Niger, Burkina Faso and the south of Mali and ending along the Senegal-Mauritania frontier in order to prevent any re-contamination of the adjacent countries by the sahel regions ;
 - an East African *cordon sanitaire* along Ethiopia and the Kenya-Tanzania frontier in order to prevent the infection of the south East side ; and
 - the South Sudan cordon which was designed to prevent the spread of the virus towards the adjacent countries (Central Africa, Zaire, Uganda, Kenya and Ethiopia).
- **an intensive sero-surveillance programme** including the use of ELISA tests with the aim of detecting the rinderpest antigens in domestic and wild animals, made more effective by strengthening the diagnostic support and the introduction of efficient reporting systems.




 SANITARY BELTS

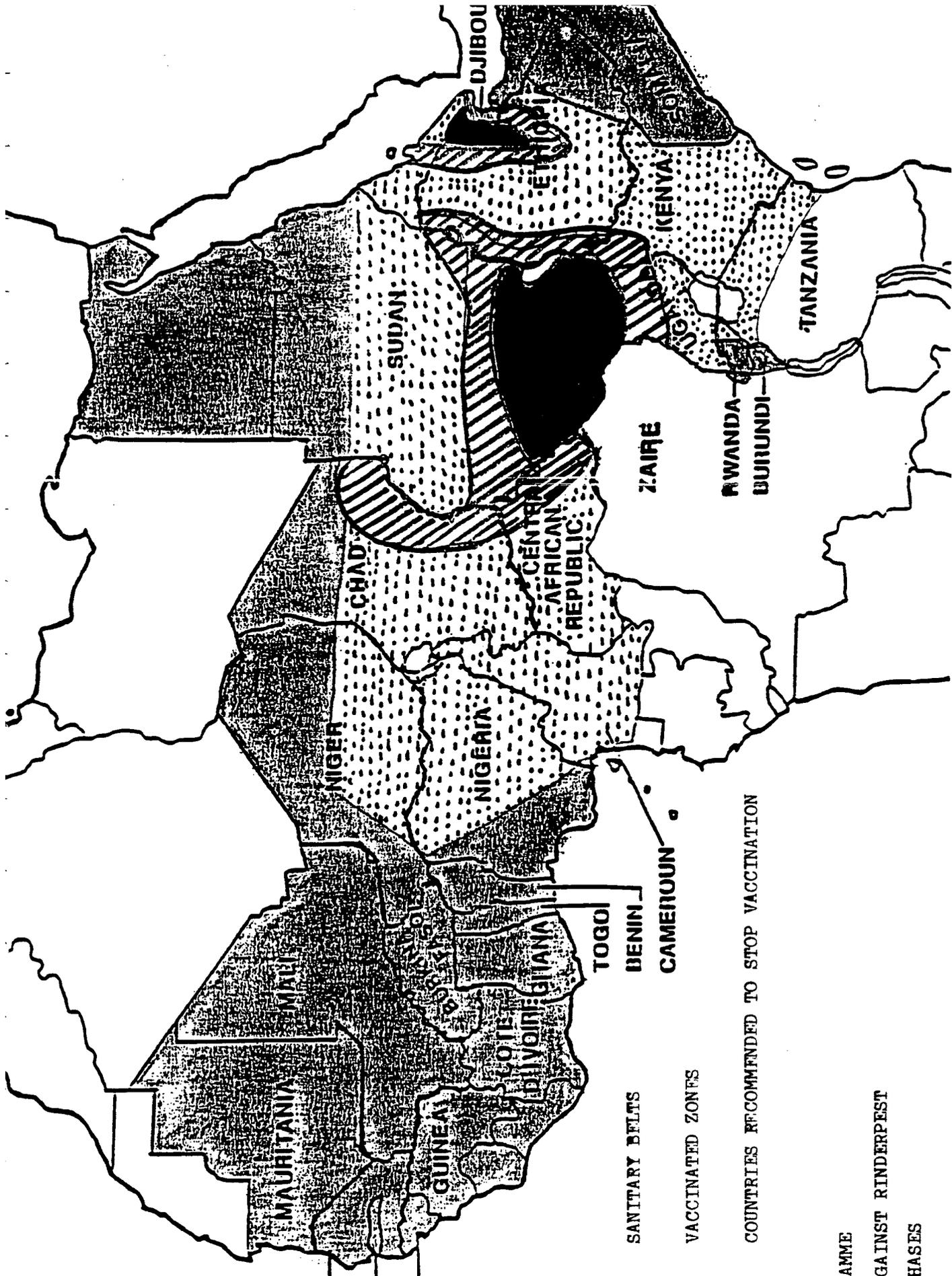
MAP

GAINST RINDERPEST

4.1.2. Current strategies for fighting the disease

The encouraging results obtained in the course of the 5 first years of the programme lead to the modification, in part, of this strategy. In 1990 only 2 countries were still endemic (Sudan and Ethiopia) and in 1993 a more targeted approach was approved (see plan) which consisted of :

- as intensive as possible vaccination coverage in the known endemic zones ; these being South Sudan (the six southern provinces) and Ethiopia (the Afar Plain) and the western frontier with South Sudan ;
- a *cordon sanitaire* of 200 km around the Plain of the Afar, South Sudan and to the East of Chad and Central Africa ;
- the continuation of vaccination in the countries of Central Africa (Nigeria, Niger, Cameroon, Chad, Central Africa) as well as North Sudan, Ethiopia and Eritrea, Kenya, Uganda, and the North of Tanzania ;
- a systematic serological follow-up programme in the endemic zones and the *cordon sanitaire* in order to improve or at least maintain the level of immunisation ; and
- the introduction of systems for active sero-surveillance in order to control the level of immunisation in the vaccinated areas and the presence of antigens in the unvaccinated herd and wildlife.



AMME
 GAINST RINDERPEST
 HASES

SANITARY BELTS
 VACCINATED ZONES
 COUNTRIES RECOMMENDED TO STOP VACCINATION

4.2. The results

The results in terms of vaccination and serum monitoring were not fully reported and analysed until 1993, in the reports of the Co-ordination Unit. Thus it is necessary to take the data with a certain amount of caution because of the repetitions observed from one year to the next and some lack of coherence and consistency in the information. It is therefore difficult to assess the regularity and systematic application of the work done in order to implement the strategy.

In total, it is probable that about 300 million vaccinations were conducted over a 10 year period in those countries participating in the programme. It is necessary to have a clear summary of the purchases made with the EU financing in order to determine what part of this unprecedented aid funding can be attributed to the programme. Nonetheless all the inputs contributed to implementing the overall strategy and thus to the global aim of controlling the disease. The planned levels of vaccination cover, which it was hoped would reach more than 70 % of the animals during the first years of the campaign (about 80 million vaccinations annually) were never reached. The greatest number of vaccinations seems to have been achieved in 1990 with more than 35 million doses injected across all the countries participating in the campaign (including Egypt). This represents a cover of about 25 % of the domestic herd involved. However these campaigns were not implemented with all the co-ordinated effort which had been hoped for, because of delays in the preparation and launching of national programmes. The joint efforts necessary between neighbouring countries in order to maximise the benefit of their actions did not prove possible in many cases.

The importance and the results of the serum monitoring activities are also difficult to assess because of the lack of clarity in the figures which appear in the annual report of the Co-ordinating Centre up to 1993. The number of tests conducted should have been 70-80,000 sera with effect from 1990. These were mostly concentrated in ten countries, particularly Senegal, Mali, Niger, Chad, Ethiopia, Kenya, North Sudan, Tanzania, and Egypt. The results in terms of vaccination cover are impossible to analyse because no valid information is available on the areas in which the samples were taken, the representativeness of the samples, the sampling method used, or the vaccination status of the animals sampled. It seems in addition that the relaying of information to the Co-ordination Unit in Nairobi, which in 1995 had only received 3 reports from laboratories concerning the sero-surveillance activities, are far from systematic.

5. CURRENT SITUATION AND PERSPECTIVES

5.1. Recent development/growth of rinderpest

The PARC programme, through its direct intervention and the mobilisation of resources which it has provoked, has undoubtedly contributed to a better control of the disease even though it cannot be credited with the initial progress registered at the beginning of the 1980s before its effective launch. The relatively high level of vaccination achieved in certain countries in one or other period, and particularly in Cameroon, Mali, Niger, Senegal and Ivory Coast have enabled the disease to be eliminated from West and Central Africa since 1988. Moreover the level achieved in certain of the key countries of East Africa (Ethiopia, Kenya, Tanzania and Uganda) have enabled the disease to be confined for a time to only 2 countries - Sudan and Ethiopia. In Ethiopia active control, based on a rigorous approach to systematic monitoring, has enabled the areas in which the disease is considered endemic to be progressively reduced, particularly since 1991. Today the only zones which are considered endemic are the Centre-South part of the Afar Plain and the frontier shared with South Sudan. On their side the Sudanese public services have managed to control the disease in the North of the country but have done nothing in the four southern provinces of the country which are still in the grip of the civil war. Only the NGOs are conducting any vaccination in this part of the country which, despite the progress registered from 1990 to 1995 in terms of numbers of vaccinations done, has remained a source of re-infection for the adjacent countries.

Various worrying incidents have occurred in Kenya since the end of 1990 which raise doubts about the real level of protection in these two countries and arouse fears that outbreaks of infection could have reappeared in certain regions of Somalia :

- several outbreaks were notified in 1991, 1992 and 1995 in the North (Turkana) and the North-West (West Pokot) of Kenya, whose most probable origins can be traced back to Sudan and Uganda. Although no new outbreaks have been declared in Uganda since 1994 the South Sudan's frontier with Uganda and Kenya remains highly insecure and leaky as a result of the commercial activity, the traditional seasonal migration of cattle and their owners, and the waves of refugees who periodically cross the border;
- the origin of the rinderpest epidemic which decimated the wildlife of the Tsavo Park between April 1994 and April 1995 could not be traced precisely and convincingly because of distance from known endemic areas. It raises again the question of the virus spreading by means of the wildlife and of the way in which the virus crosses the interface between wildlife and domestic animals :

- the attenuation of the disease which is claimed for the Mandera district in the North East of Kenya does not appear to have been officially documented with the necessary rigour. The origin has not been explained in a manner which is generally considered credible when one considers the distance from known infected areas and the type of virus implicated (RGK1). The low virulence of the condition, leading to infrequent observations, reduces the chances of detection and helps it to spread.
- the cases of rinderpest reported by the Red Cross in the lower Juba Valley in 1992 seem to come from the Kenya frontier. They may be linked to those of 1996 in the sense that they could, like the Tsavo outbreak, stem from an endemic area situated in Kenya which has remained undetected for decades.

5.2. PARC's future directions

Despite the unquestioned positive aspects of PARC, the aim of eradicating the disease appears, unfortunately, still a long way off. The difficulties of control in areas where there is unrest or where access is difficult (Sudan, Somalia ; parts of Ethiopia, Uganda and Kenya; Zaire and eastern Chad), negligence or the lack of motivation of certain national services (Kenya, Zaire) and the impossibility of the programme intervening in certain sensitive areas (Zaire, Nigeria) leaves some important breaches in the system of control which has been put in place. There is clear evidence of this in the recent outbreaks identified in Uganda, Kenya and Somalia. These outbreaks raise the number of countries which are probably infected to five from what only in 1990 was believed to be two. Finally the appearance of less virulent strains of the virus in the region of Mandera in Kenya, in the South West of Somalia and the still little understood outbreak among the Tsavo wildlife, have all rightly cast doubts on the previous certainty of claims about the “simplicity” of the disease’s biology.

These various factors demonstrate the need to maintain a heightened vigilance about the risks of the disease in those areas which are already considered safe or are becoming safe as result of the efforts of the last fifteen years. One view of these risks, which must be pessimistic if one is referring to the aim of eradication, leads to concern about :

- the patterns of trading and migratory grazing existing between the South and the West of the Sudan which raise real possibilities of infecting the area situated to the east of Chad and the Central African Republic and across them and the uncontrolled trading routes which exists in various parts of Chad’s frontier with the Central African Republic, North Cameroon and Nigeria ;

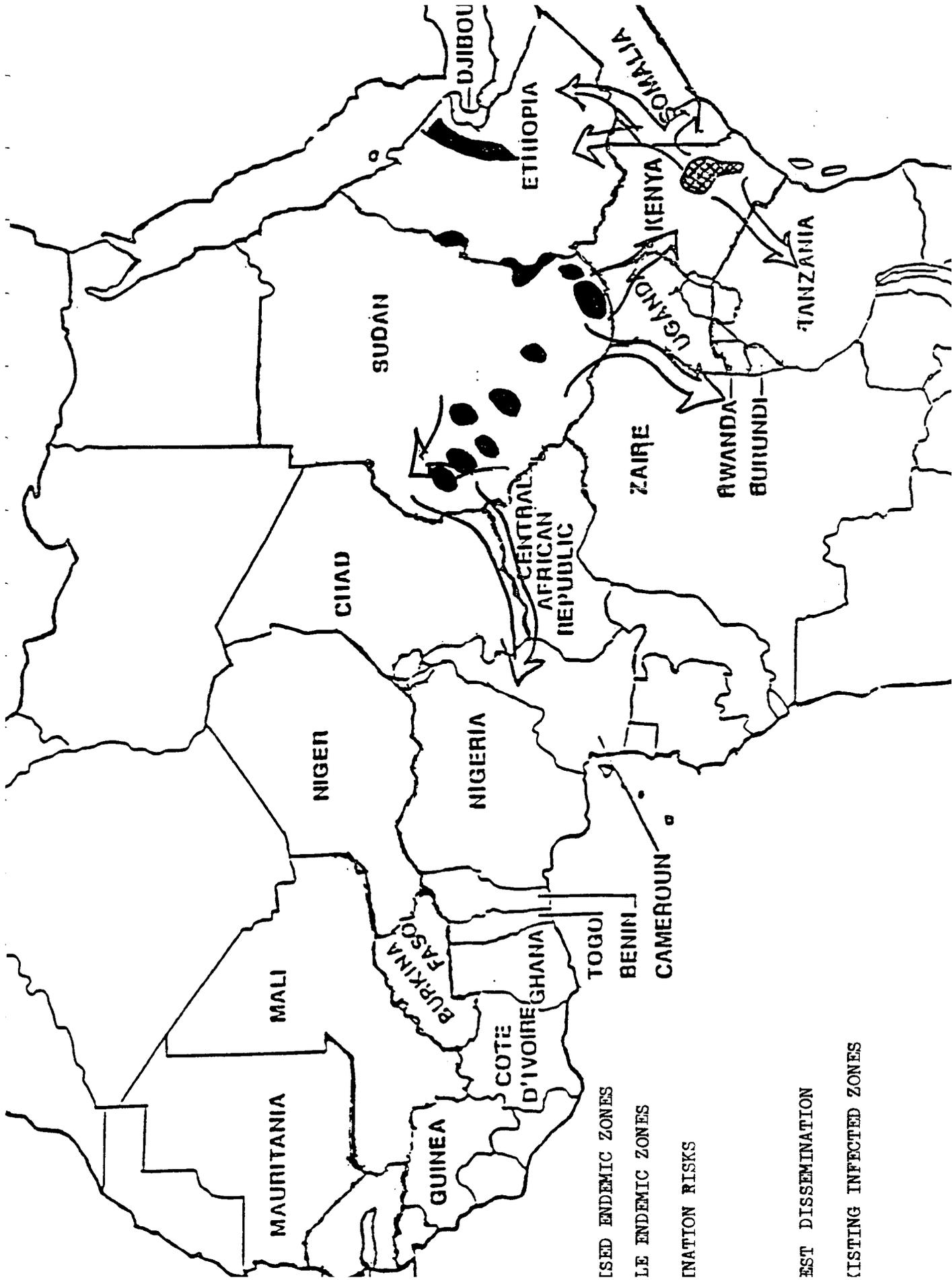
- rearing areas in North East Zaire which have not been the subject of any recent investigation. Although theoretically separated from South Sudan by a barrier created by tsetse fly infestation, they are not safe from contamination across the poorly controlled areas of Western Uganda and could in their turn infect the troubled areas of Goma and Kivu, as well as Rwanda and Burundi, and, from there, Tanzania ;
- The South West of Somalia where, although this remains a subject of controversy, numerous cases of "low virulence" rinderpest have been reported in 1996 in uncontrolled areas from where one cannot ignore the possibility of it spreading. It could spread not only to the East of the River Juba, but also into the regions of Oromo, Southern Somalia and the South East of Ethiopia which are today regarded as safe from the disease and therefore have not been vaccinated for several years ;
- Tanzania which, despite high levels of seropositivity among the cattle in the areas close to Tsavo can not be considered completely safe from contamination because of the wild life in the frontier region ; and finally
- the extensive so called "troubled" area, which goes from East Tsavo to Wajir and along the River Tana as far as Marsabit in Kenya. In this area some current studies and research into the period back to 1980 tend to show that the disease has remained endemic in the region since this period and could thus have escaped the attention of those responsible for the PARC programme.

The map opposite includes, as well as the zones which are recognised as being endemic or probably infected, the possible safe areas into which the disease could spread.

Bearing in mind that eradication is at the base of the programme and in light of these recent experiences, it is necessary to keep a pessimistic view in order to ensure yet greater security from any future activity and to justify the financing which has been agreed. If the strategy which was retained in 1993 is still sensible, the events of these last years have shown that the uncertainty which remains about the efficiency, in practice, of the various services which need to be part of its execution could eventually put in question the planned overall result. It is necessary, therefore, at this stage to re-consider with care the application of this strategy while retaining its achievements. Thus, it is recommended to :

- maintain the effort developed in Ethiopia to eradicate the residual outbreaks in the Afar Plain and along the western border while intensifying the serum monitoring activities on the Kenyan and Somali borders ;

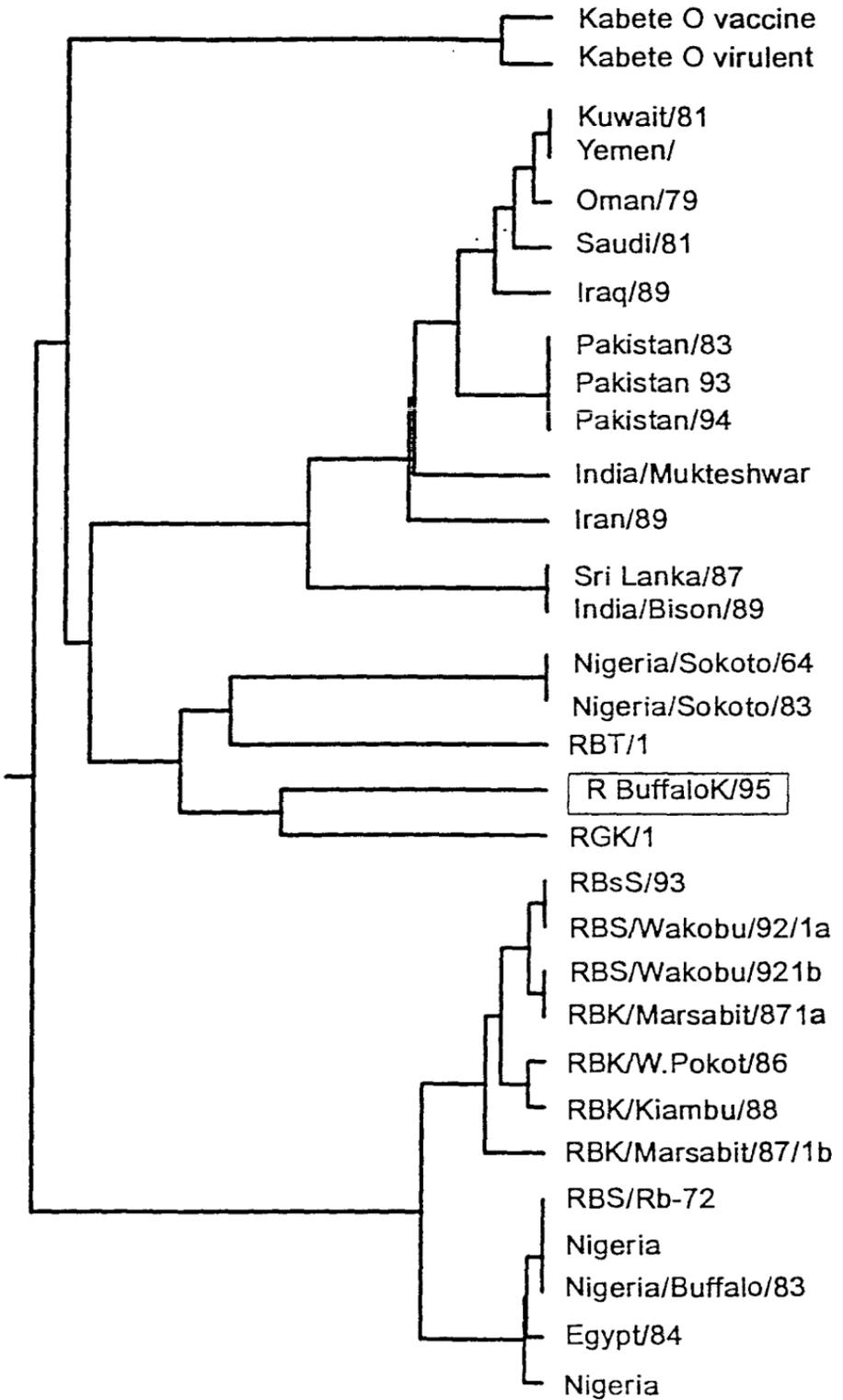
- intensify the vaccination activity and the serum monitoring in the 6 southern provinces and the regions of Bar El Ghazal and Dharfour. This can be done either directly by means of a new national programme or indirectly through the NGOs who are present on the ground;
- reinforce the serum monitoring and vaccination activities in Kenya and in Uganda and conduct detailed investigations (systematic studies and serum analysis) in any doubtful regions in order to eliminate all risk of becoming endemic ;
- undertake any studies and investigation in the North East of Zaire and the South West of Somalia which can prevent risk of the disease spreading either in or from these areas ;
- reinforce and enlarge the *cordon sanitaire* to the East of Chad and the Central African Republic ; reinforce the serum monitoring programme and health controls on the movement of cattle.



RINDERPEST VACCINATIONS

COUNTRIES	Estimated heads	Vaccinated animals 1988	Vaccinated animals 1989	Vaccinated animals 1990	Vaccinated animals 1991	Vaccinated animals 1992	Vaccinated animals 1993
BENIN	950000		507733	488745		570000	
BURKINA FASO	2900000		1928363	2095000	3500000	1400000	
BURUNDI							395000
CAMEROON	395000		3614500	3300000			2500000
CONGO	40000						
IVORY COAST			756073			352000	
DJIBOUTI	70000						
EGYPT	7100000		5405401	5014985	4492708	5300000	4700000
ERYTHREA	1300000						362119
ETHIOPIA	35000000		10269290	25545830	7878560	5700000	4060000
GABON	38000						
GHANA	1250000		644984	589895			906035
GAMBIA	400000						
GUINEA BISSAU	34000						
EQUATORIAL GUINEA	1000						
GUINEA KONAKRY	1800000						
KENYA	13800000		4562700	2253209	2110000		3100000
LIBERIA	40000						
MALAWI							
MALI	5000000		2321043	2415565	1895000	1540000	1600000
MAURITANIA	1300000		639536	800000	432000	452000	500000
NIGER	2000000		1088722		930734	616000	502000
NIGERIA	12000000		756073		1177082	2460000	2600000
UGANDA	4200000	1318867	245133	480000	2535174	426000	3100000
RCA	2600000		312027				530000
RWANDA	600000				730000		
SENEGAL	2740000	1674011	1712608	1719463		930000	1061416
SIERRA LEONE	33000		283000				
SOMALIA	5000000		300000				700000
SUDAN	21000000		2718669	1075625	2871391	1500000	4800000
TANZANIA	13000000	3489542	2700000			5650000	900000
TOGO			197397				
CHAD	4300000		2492136	2687000			3438581
ZAIRE		520295	766191				
ZAMBIA							
TOTAL REGION	138891000	7002715	44221579	48465317	28552649	26896000	35755151
% vaccinated		5,04	31,84	34,89	20,56	19,36	25,74

Rinderpest Virus Phylogenetic Relationships



ANNEX 5.2 - SENEGAL

1. THE ROLE OF ANIMAL HUSBANDRY IN THE ECONOMY

Senegal has a population of 8.2 million inhabitants, 42 % of whom live in the towns, in an area of 196,712 sq km to give an average density of 42 inhabitants per sq km. The income per person was estimated at US\$850 (685 ECU) in 1992 ; the population growth at this time of 2.9 % was higher than the growth in the GDP

The agricultural sector contributed only 11 % to the GDP (1993) and its growth at the time was only 2,8 % over the previous 20 years. In this sector, as in the whole of the economy the effect of the devaluation and the accompanying measures were crucial to allowing a faster growth for the economy than the population : among the objectives of the government are the growth of agricultural production by 4 % and overall growth of the GNP by 4.5-5 %

The government has prepared a Policy of Agricultural Development (Lettre de Politique de Développement Agricole - LPDA 1995), supported by a Programme of Investment in the Agricultural Sector (Programme d'Investissements du Secteur Agricole - PISA), by which it is committed to the liberalisation of prices and the commercialisation of inputs and agricultural products, to disengage from trading activities, to put in place a legal framework which will ensure the security of ownership of land used in agriculture and to create a structure which will encourage private investment.

Animal husbandry contributes 30 % of the agricultural GDP. However it only amounted to 2.8 % of agricultural investment in 1995, as in the previous 10 years, which is significantly less than its importance in the sector.

Livestock⁹, whose total value is about 450 million ECU, consists principally of 2.8 million cattle and 7 million small ruminants (1994 estimate).

Besides its purely economic contribution livestock are important for their social role and as nutritional capital. Livestock involves 350,000 families, say 3 million people, for whom it represents 40 % of the revenues of those in the agro-pastoral sector and 70 % for those engaged in purely pastoral activities.

⁹ Principal source : "Programme spécial national de développement de l'élevage" (National special programme of livestock development), April 1996 and statistics from the Direction de l'Élevage

The production of meat, all types included, was in the order of 81,000 tonnes in 1993, before the devaluation, representing an annual consumption per capita of barely 10.8kg. It is supplemented by imports which are relatively unimportant and which were seriously reduced by the devaluation : 878.2 tonnes of meat and offal in 1994 against 1952 tonnes in 1993. Imports of milk suffered the same drop after devaluation, passing from 218 million litres of milk equivalent in 1993 to 103 million in 1995.

2. THE ANIMAL HEALTH SITUATION

Senegal has known no rinderpest since 1968. Since 1993 the strategy has been to target vaccination on the young animals of less than 3 years ; after the last campaign it had achieved a 95 % success rate. It is going to stop the campaigns with effect from 1996 and start the OIE procedure for declaring the country to be free from the disease.

No outbreaks of PPCB were reported last year but the epizootiological situation remains poorly understood and the menace constant. PPCB vaccination continues . The objective of the last campaign to have treated 1.238 million head has been over 80 % achieved.

Even if they are diminishing, other epizooties remain rife such as PPR (10 outbreaks in 1995), equine fever (15 outbreaks) and Newcastle disease (1 outbreak). Sheep pox and Rift Valley fever have not shown themselves but remain a real threat. Bovine pasteurellosis, blackquarter (200 outbreaks) and botulism (30 outbreaks) are also major preoccupations.

With effect from this year vaccination against PPR and Newcastle disease have become obligatory and are the subject of mass vaccination campaigns.

3. ANIMAL HUSBANDRY SERVICES

The livestock sub-sector is responsible to the Ministry of Agriculture, where it has its own department. The field services consist of 10 regional services, 30 departmental sectors, 18 animal husbandry sub-sectors and 104 veterinary posts. The technical staff in 1994 consisted of 451 employees and includes 74 veterinary doctors and 15 graduate zoology technicians. Recruitment has been stopped and global reforms were introduced in 1990 across the whole public sector to encourage voluntary redundancies. A restructuring of the Direction de l'Élevage (Department of Livestock Affairs) was proposed in March of that year. The present and proposed organigrams are shown below.

The Department of Livestock relies on, amongst others, these projects :

- the Project for the Short Cycle Development of Species (Projet de Développement des Espèces à Cycle Court - PRODEC) financed by the French aid programme, which in addition to the technical aspects is also involved with developing a professional structure and providing credits in 3 regions ;
- Animal Husbandry Support Project (Projet d'Appui à l'Élevage - PAPEL), financed by the African Development Bank (ADB), provides a variety of help to the sector in such forms as credits, water resources, publicity and training in 2 other regions of the country.

The National Laboratory for Veterinary Education and Research (Le Laboratoire National d'Études et de Recherches Vétérinaires - LNRV) at Dakar-Hann has a statutory research role and is not part of the Department of Livestock Affairs. They work in the field of research, epidemiological monitoring, diagnosis and the production of vaccines.

Finally, the Inter-state School of Veterinary Science and Medicine, also statutorily independent, can claim to offer resources over and above the problems of training.

4. FINANCING THE SERVICES

As shown below¹⁰, the budgets of the animal husbandry services are over 96 % allocated to the costs of personnel and have barely changed in 3 years :

<u>Years</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Budget (X 1000 ECUS)	1.203	1.484	1.250
of which Personnel (%)	96,0	97,2	97,0

(1 ECU = 647 CFA)

A "Livestock Development Fund" was created in 1989 in the form of a Special Treasury Account which was funded principally by taxes on the sector (imports of milk and meat, exports of hides and skins and feedcake). These special accounts have now been abolished (for reasons related to principles of government budgeting) and investments in the sector are now part of the Government's general budget. This change seems, to the people on the

ground, to have made them difficult to obtain : thus, around 155,000 ECU was allocated but not used in 1995. The allocations for 1996 are for a similar amount.

Other receipts by the government services (sale of vaccines, fees for inspections) are credited at the regional level in special accounts at the commercial banks and are jointly managed by the regional officials of the Livestock Services, and the regional owners association. The mission did not succeed in obtaining, at the central level, information about these accounts but they would seem to be insufficient to cover the costs of overseeing animal health.

5. REFORM OF THE SERVICES

Numerous legislative and regulatory reforms have been introduced, notably at the instigation of PARC, to encourage the privatisation of the services to the livestock farmers.

The import and distribution of medicines (including their prices) have been liberalised as well as the existence of private practitioners, where they exist. Elsewhere distribution is undertaken by the human medicine pharmacies or other traders. The Public Services ensure quality control, but cannot cover the commercial practices.

An “Ordre de Docteurs Veterinaires du Sénégal”, Board of Veterinary Doctors of Senegal, has been created and a Code of Practice for veterinary medicine has been instituted. Apart from its role as an arbiter of conflicts and controller of standards, the Board acts as technical adviser for the contracts of private practitioners and for the credit organisations developed on their behalf.

The privatisation of veterinary practices happened some time ago and largely precedes the PARC project. Senegal currently has 185 private practitioners installed, of whom 62 are veterinary doctors, 35 are graduate specialists in livestock and 88 are technical advisers or nurses. PARC has already contributed to the setting up of 19 of them. It seems that the current trend for assistance, particularly from the young, is more than before towards setting up in rural areas “to look for a market”.

For some time there have been veterinary and livestock experts in the private enterprises. There is even an “employers” association for the private veterinary sector and commercial breeders which consists of 30 members. It is not associated with the activities of PARC. There is also an association of livestock technical advisers (auxiliaries), which is included in the management committee of PARC’s privatisation component.

Legislative texts have been promulgated for the creation of health mandates which could have a bearing on collective preventative measures and the inspection of foodstuffs of animal origin. The Directive is not yet operational but studies are already being done in order to determine the financing needs of these directives (in particular, the cost of vaccinations and the production of vaccines). Once these sums are confirmed it will still be necessary to decide how to fund these various health mandates. Meanwhile it is proposed that these Directives should be financed by the fees for vaccinating against CBPP using the resources of PARC. This will begin with the next campaign and last for 2 years.

The mandates for the other vaccinations which have recently become obligatory (PPR and Newcastle disease) will be looked at favourably by the Department of Livestock Affairs.

Cost recovery has also been in operation since 1993 for vaccinations against rinderpest and against CBPP. This contribution from the livestock farmers rose from 30 F CFA to 50 F CFA last year. However as explained above the real cost is still not known. Moreover the receipts, which are currently transferred to the regional funds, are not yet used to support animal health activities. It is planned to create a "Fund for multi-disciplinary health protection" which will be financed by charging for the government services right down the line. But the amount of these receipts from the sub-sector and their current destination must be made clear before any decision is made. In terms of animal health, the financing needs in the future will include not only those of the health mandates but also those of the epidemiological monitoring network which PARC has contributed to setting up and whose ongoing costs are not yet known. In addition other needs of this sector, such as for example help or credits for production or commercialisation are also only partially provided for.

Faced with all these unknowns the self-financing of this sector still seems to be a long way off, even though it remains one of the objectives. On the other hand it must be noted that no studies or analyses currently exist or are planned on the effect for the producers, in terms of the returns on their business, of the current charges and fees for services. This is an essential element in any assessment of the feasibility of this method of financing the services.

6. THE PARC PROGRAMME

6.1. PARC'S activities

An agreement for the first stage of the programme was signed in 1988 ; the planned financing was for 2.7 million ECU of EDF funds and 0.7 million ECU of government funds. This phase lasted for 3 years and had the objective of controlling the disease, rationalising the

distribution of veterinary inputs, promoting the privatisation of veterinary medicine and helping in the creation of a fund for the development of the livestock industry.

A second phase of the programme was the subject of an agreement dated the first quarter of 1995; the planned financing is for RIP - 2.4 million ECU, and NIP - 1.2 million ECU. It provides for support to the health protection programme, following up the privatisation of veterinary medicine, credits for the supply of medicines, credits for the cattle business, and support to the saucier-professional organisations in the sector. It is worth noting that an operational "Fund for the development of stock rearing" is one of the conditions of the agreement.

6.2. Rinderpest control

The first phase of PARC made it possible, in the course of 4 campaigns, to vaccinate 5.4 million head representing 75 % of the target population. The sero-surveillance showed, at the end of the programme, a coverage factor of almost 70 % of the bovine herd. These excellent results made possible, from 1993 onwards, a new strategy of vaccination centred on young animals less than 3 years old. As at today the coverage factor of these animals should be 80%. With effect from next year rinderpest vaccination will be stopped and the country provisionally declared safe from the disease.

6.3. The privatisation of veterinary medicine

In the course of the first phase, the project helped with the necessary legislative modifications. In particular it installed with a local bank the procedures and means necessary for providing ad hoc credits. From 1993 this type of financing became operational and, to date, 19 practitioners have benefited, 11 others have had their application agreed and 3 have an application under consideration.

The procedure which has been put in place provides for the applications to be examined for their feasibility by a technical committee which is independent of the Government and composed of the bank, the professional associations, (the Ordure and the employers association), the lender and a representative of the Ministry. Once the project is approved the financing is entirely organised by the bank, as is the follow-up with the recipients. It is worth noting that the bank would not finance this type of activity, which it considers risky, without the support of PARC or the guarantee of quality which the professional association (Ordure) represents. Based on this, after a number of successive amendments, the PARC funds have provided a complete guarantee for the candidates as far as the bank's financial requirements are concerned: guarantee of 60 % and personal contribution up to 25 %. A guarantee fund

of 300,000 ECU has been deposited at the bank and then up to 225,000 has been allocated to provide direct lines of credit at terms which are slightly easier than those offered by the bank (a reduction of one percent on the interest rate). Another fund of 300,000 ECU has been created in order to provide loans which are designed for financing at a strongly subsidised rate (5 %) the “personnel contribution”. The terms for any remaining credit are similar to those of commercial loans (base rate plus 2.5 % and a slight rebate at the end of the repayment period). The repayment of the EU deposits is done at two percent below the money market rate.

In general, these loans only require a candidate to show his technical ability and are therefore well suited to recently qualified young people with no resources of their own. This approach therefore runs the risk of an eventual shift towards protectionism by the profession and the lack of involvement of the candidates is a risk to the dynamism which is necessary to their role as a service provider. Moreover the bank seems to be running little risk in return for a reasonable return.

These loans are reserved for trading in medicines and for clinical activities ; they may not, on principle, be used to take part in financing projects which are all or part engaged in production. It should be noted that the same bank finances livestock breeding activities with its own funds at 4 % over the base rate (currently 8.5 %) but without requiring any guarantee and this is because they work with solid well run groups. The rate of repayment varies from 82 % to 98 % according to region. However these conditions only allow for the financing of commercial operations or short term production. Other projects, notably PRODEC, have obtained for the regions in which they are active better conditions for the financing of production operations.

6.4. Other activities

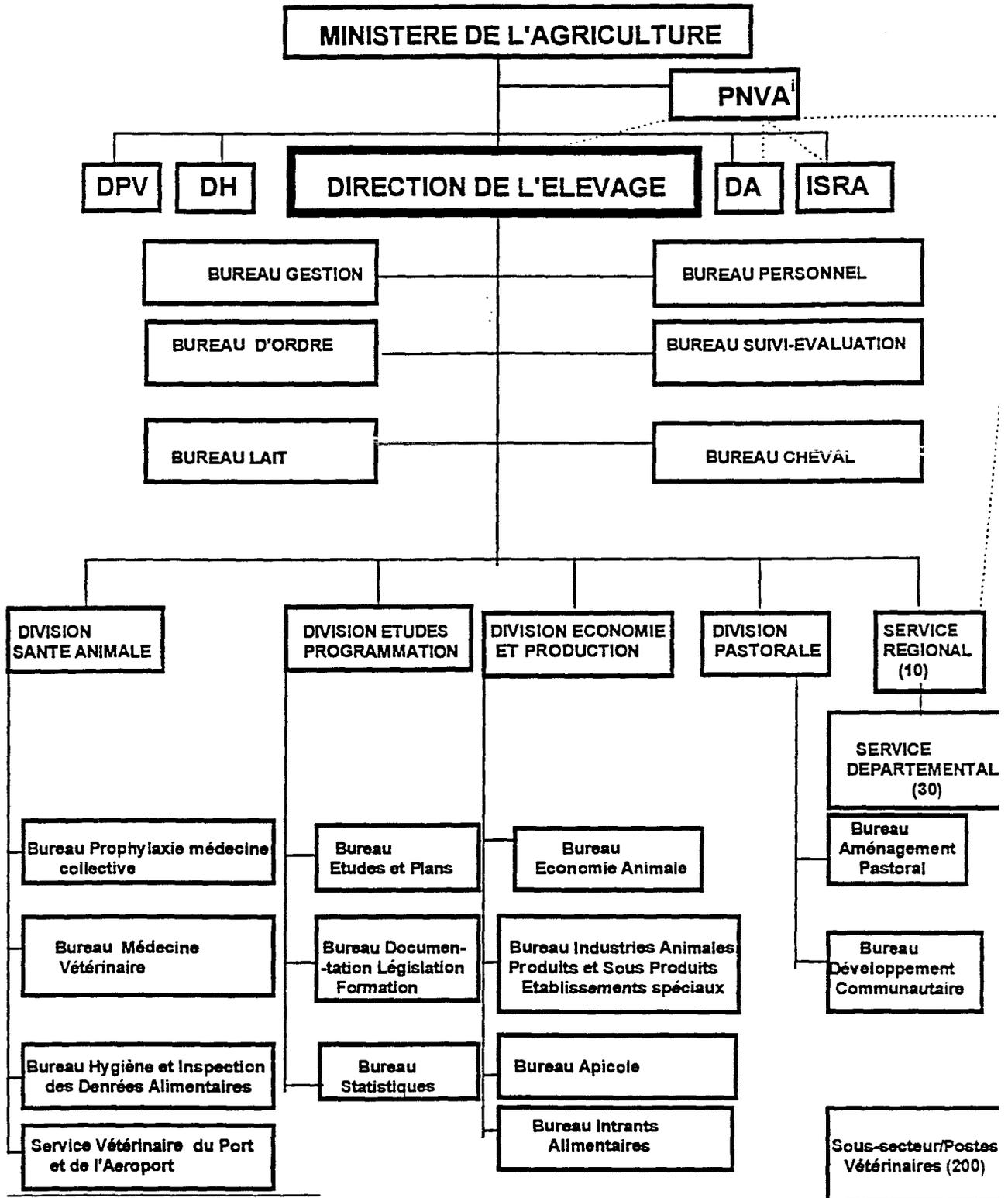
The future of the “Livestock Development Fund” has been mentioned above. The first phase has made it possible to rehabilitate 14 veterinary posts and to reinforce 4 regional diagnostic laboratories.

The second phase will initiate a National Programme of Health Protection, something which is certainly needed in light of the stopping of rinderpest vaccination and the persistence of other epizootic risks. It is planned to rehabilitate certain aspects of the Department of Livestock Affairs, but above all to reinforce the regional diagnostic capacity (6 laboratories) and to set up a mobile epidemiology unit. None of these are yet operational. An observation network of twenty enquiry centres should complete the organisation. Although this epidemiology monitoring activity seems to be important and to be the responsibility of the

Government, its final financing looks, as explained above, very fragile - certainly to the eyes of the mission.

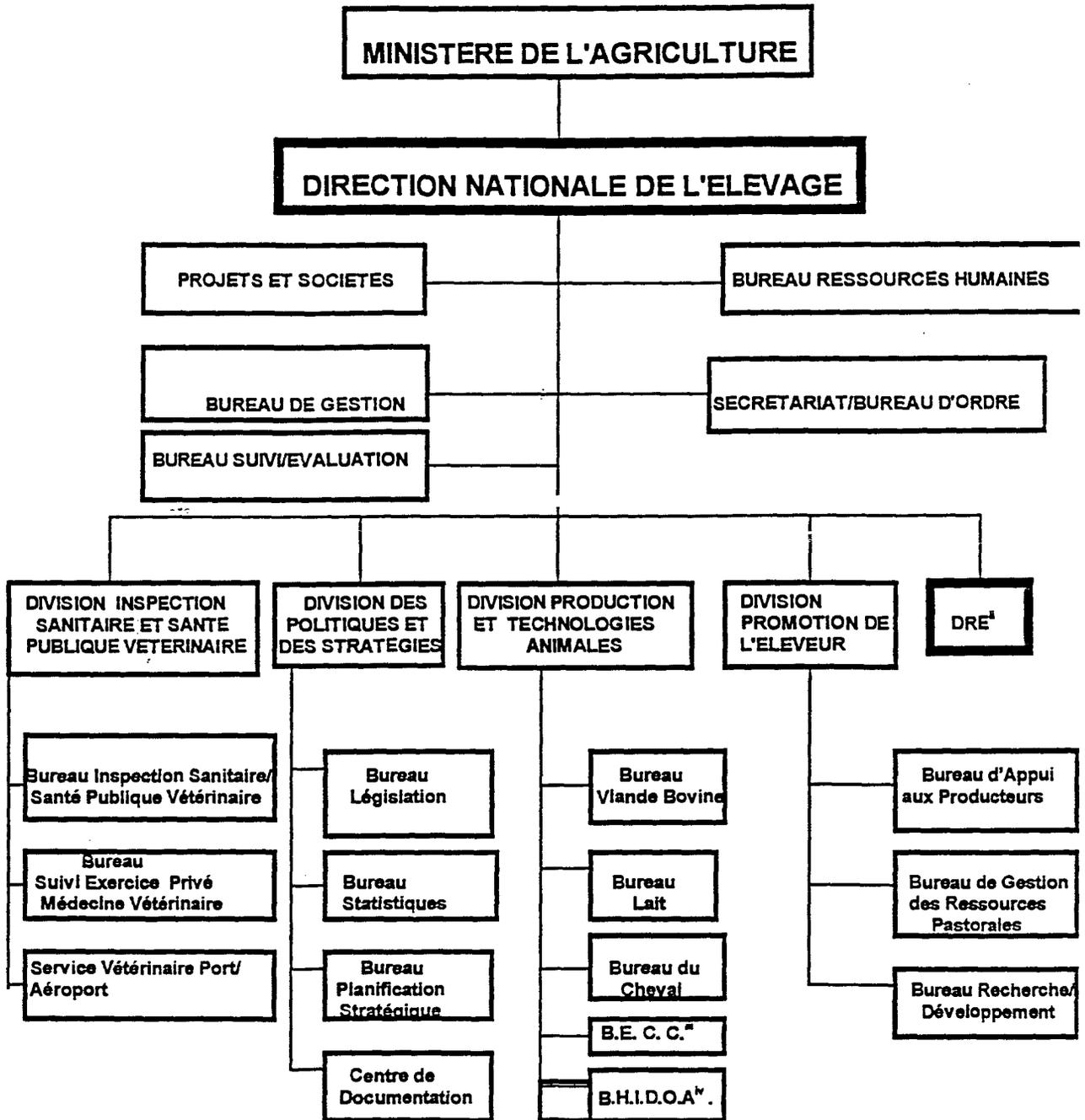
Other activities to strengthen the main elements of the project (institutional support, the LNRV centre at Dakar-Hann, communications, training) follow their course normally. Support for the professional associations and the commercialisation of the sector have not yet begun because it is necessary to undertake a prior feasibility study - which is already in the programme.

Actuel organigramme de la Direction de l'élevage au sein du Ministère de l'Agriculture.



¹ PNVA: Programme National de Vulgarisation Agricole; DPV: Direction de la protection des Végétaux, DH: Direction de l'Horticulture; DA: Direction de l'Agriculture. --- Schématise les relations fonctionnelles. _ relation hiérarchiques.

nouveau organigramme proposé de la Direction de l'Élevage au sein du Ministère de l'Agriculture.

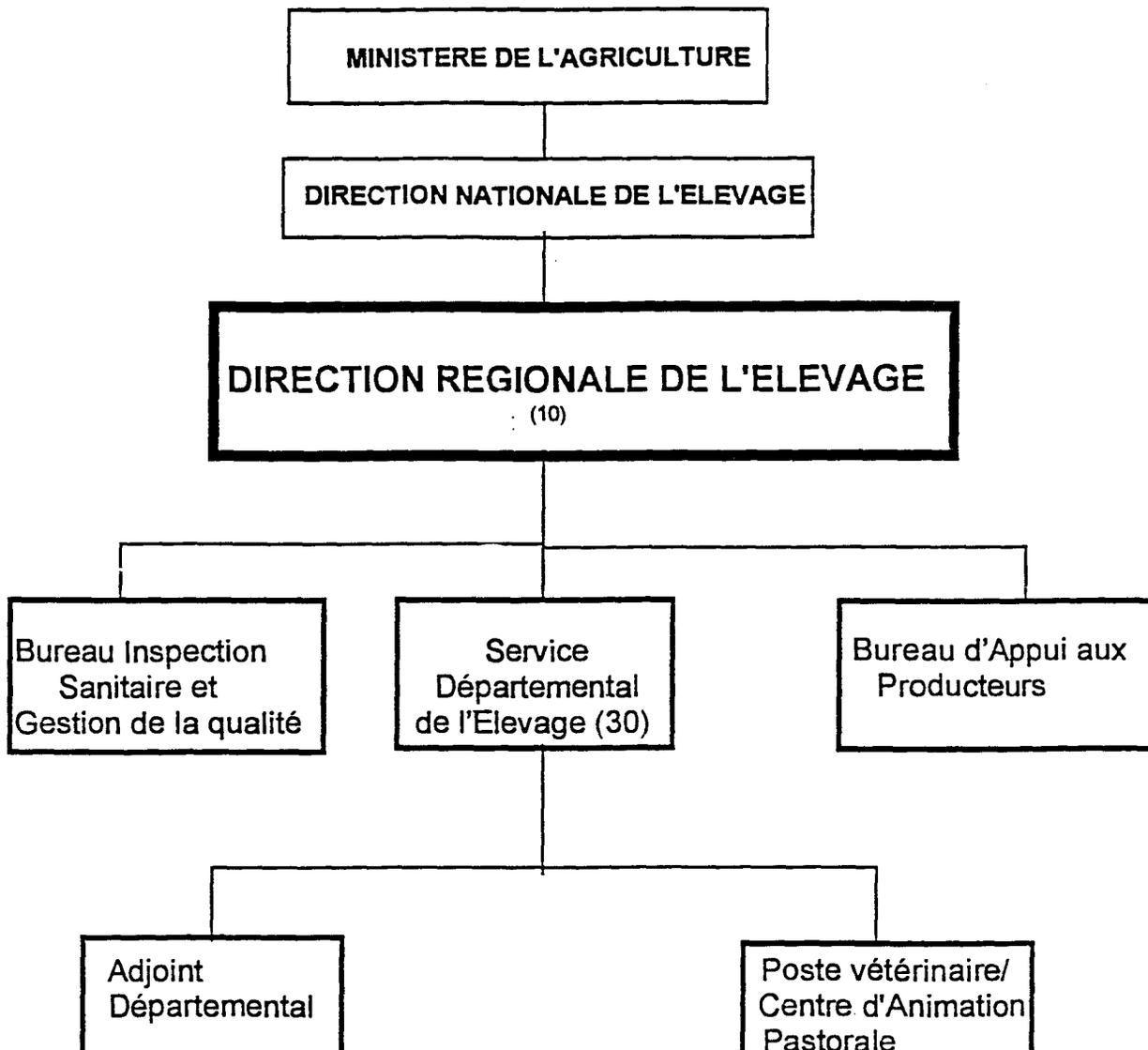


ⁱ DRE: Direction Régionale de l'Élevage, voir annexe 3 pour son organisation.

ⁱⁱ B.E.C.C.: Espèces à Cycle Court comprenant les petits ruminants, la volaille, le porc, le lapin, et les abeilles.

^{iv} B.H.I.D.O.A.: Bureau de l'Hygiène des Industries et Denrées d'Origine Animale.

Nouvel organigramme services deconcentres de la Direction Nationale de l'élevage.



ANNEX 5.3 - MALI

1. LIVESTOCK IN THE ECONOMY

Mali is home to about 8 million inhabitants, of whom 80 % live in rural areas, in an area of 1,240,000 sq km. The average density of 6.6 inhabitants per sq km is very variable and noticeably greater in the south of the country. In practice only 503,000 sq km are suitable for agriculture and animal rearing . The rate of population growth is 2.3- .5 % per annum. The GNP per head is of the order of US\$190 (155 ECU) and has been growing at about 5 % since the devaluation of the FCFA.

The agricultural sector contributes as much as 45 % to the GDP and its exports represent 75 % of the national total. Livestock represents 40 % of the agricultural production, contributes 16.8% to the overall GDP (1992) and represents 29 % of exports.

The national herd consists of about 5.5 million cattle and 12 million small ruminants (1995) ; this is equivalent to its size before the drought of 1982-1983. The extended grazing system continues to represent 65 to 90 % of livestock farmers. The extended system in its purest form, the nomads, involves 1.5 million cattle while in the agro-pastoral form there are 2.8 million cattle (accounting for more than 50 % of the income of the farmers concerned). Since the end of the 70s the animal population has noticeably moved towards the wetter areas in the south away from the dry zones in the North, where the numbers have dropped by 23 to 53 % according to the area¹¹ . The productivity of cattle is usually estimated at between 11 and 14 % of the herd against 29 % for the small ruminants. Exports are mostly done on the hoof and were estimated, in 1994, at 115,000 cattle and 120,000 small ruminants. This represented significant growth over 1993 (60 % and 25 % respectively) and was due to what is sometimes called the “devaluation effect”¹². For milk the country is a net importer.

The Ministry of Rural Development, which includes livestock in its responsibilities, has adopted an action plan which is structured around three objectives ;

- the disengagement of the State and the passing of responsibility for rural development to others ;

¹¹ Source : The commercialisation and external market for cattle in the central corridor of West Africa”. ABT July 1992.

- the restructuring of the Ministry in order to make it better adapted for its new objectives : Departments based on sectors will be replaced by Departments based on functions, which will in due course involve the disappearance of the current Department of Livestock Affairs ;
- the implementation of 4 socio-economic programmes
 - * management of natural resources
 - * promotion of a rural loan programme
 - * development of various channels
 - * support to targeted “at risk” groups (women and the young)

The disengagement of the State, by privatisation as much as by liberalisation of the economy, will be followed by decentralisation. The PARC management structures should therefore adapt to these changes and those which were difficult to set up (see section 6) are only expected to last for a year.

2. ANIMAL HEALTH

No outbreaks of rinderpest have been recorded since 1986. Mali is in the process of studying the possibility of stopping vaccination in order to be able to invoke the OIE procedure for declaring the country safe from the disease.

CBPP remains a worrying problem, as can be seen from the table below. The epidemiological status of the disease is not yet clear because the data only refers to confirmed outbreaks.

<u>YEAR</u>	<u>OUTBREAKS</u>	<u>ILL</u>	<u>DEAD</u>
1993	19	1362	440
1994	21	975	440
1995	11	695	294

Foot and mouth disease has not been seen since 1992, but remains a threat.

Blackquarter, in both forms, as well as pasteurellosis, tuberculosis, brucellosis and nodular dermatosis continue to be seen. The parasitic diseases and those transmitted by ticks (dermatophilosis, anaplasmosis, babesiosis and piroplasmosis) are also part of the country's pathology profile.

With the small ruminants, sheep pox and PPR are increasingly seen. Among domestic fowl there are outbreaks of avian pox, pasteurellosis and Newcastle disease. Finally, rabies is endemic and

trypanosomiasis occurs frequently in the southern part of the country.

3. LIVESTOCK SUPPORT SERVICES

The Department of Livestock (Direction Nationale de l'Elevage - DNE) consists of a central structure with 9 Regional Departments in each Administrative Region, 52 livestock areas and 200 veterinary offices situated at the level of the local councils (arrondissement). The Department is responsible for protecting the health of the herd as well as the development of animal productivity.

The number of people in the Department is constantly growing : from 637 people in 1975 to 1,023 in 1983, 1160 in 1987 and 1288 in 1994. In 1994 the Department included 261 veterinary doctors and graduate livestock officers.

Separate from the DNE and development projects in this sector run on a local basis, there is an independent structure called the Mali Office for Cattle and Meat (Office Malien du Bétail et de la Viande - OMBEVI) which takes care of promoting the commercial aspects of cattle, meat and their by products. It employs some 45 people of whom 17 are veterinary trained or specialists.

Finally the Central Veterinary Laboratory (Laboratoire Central Vétérinaire - LCV is similarly independent of the DNE. The LCV has two groups of activities ; a public service role in the form of veterinary research, diagnosis, serum monitoring for diseases, and monitoring the hygiene of animal feed ; and a commercial activity in the form of vaccine production. It employs 147 people, of whom 83 are administrative staff, 21 are “conventionnaires” paid by the State and 34 are on contracts.

4. FINANCING THE PUBLIC SERVICES

The operating budgets for the public livestock services, as shown below from the State budget¹³, have also been growing constantly in the course of the last few years. Personnel represent at least 93 % of the total cost. From 1995 onwards the Regional Departments have been given their own operating budgets, from the State budget. This budget was increased in 1996, but is still only 3 % of the total. It is worth noting, also, the importance of the personnel made

¹³ In 1994, the Department of Water Resource Management, which was at that time separated, was included in the Department of Livestock Affairs where it has since remained to allow for comparison. In 1996 the

available to the projects.

<u>YEARS</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
<i>National level :</i>			
- personnel :	222	184	192
- operating costs :	26	31	31
- sub-total :	248	215	223
<i>Regional level :</i>			
- personnel :	0	0	161
- operating costs :	0	17	22
- sub-total :	0	17	183
<i>Projects :</i>			
- personnel :	264	347	294
Total :	512	610	700
of which : - personnel	486	562	647
- operating costs	26	48	53

(in thousand ECU. 1 ECU = 647 FCFA).

The creation of a "Livestock Development Fund" appears in the agreement which relates to the last phase of PARC. However, so far accounting orthodoxy and the consolidation of funds have hindered its creation.

There exists nonetheless a Vaccine Fund, which is financed by recovering the costs of vaccination and which is administered directly by the Ministry, separate from the general budget. At present it has been wiped out by financing the vaccination campaigns between phases II and III of the PARC project.

In conclusion, some thought must be given to the idea of specific Funds being assigned to decentralised management.

5. REFORM OF THE PUBLIC SERVICES

Although started 1986, the process of privatisation did not really get going until 1991. From 1986 onwards there had been progressively built up a legislative framework relating to the practice of the veterinary profession (including the creation of a Veterinary Board and a Code of Practice), the health mandates, veterinary pharmacy, and the policing and inspection of animal health. A recent study financed by PARC¹⁴ highlighted numerous inconsistencies, indeed holes, in the judicial framework, principally in the form of the fragmented nature of the decrees and the absence of the laws to which they referred. These decrees should be re-written in the months to come.

The liberalisation of the veterinary profession, as well as the import and distribution of medicines is really happening ; the importers, wholesalers and the various retail outlets are in theory separate operations and must be part of the professional association. The same PARC study showed, however, that in practice the situation is relatively anarchic : the distinction between the types of establishment and the rules which apply to them were not being respected, while the establishments were not always properly licensed. It seems, what is more, that “exclusive concessions” were promised to certain practitioners before they set up their practice but there was no authority, either governmental or professional, to respect these promises - notably around Bamako.

These various “veterinary units” rely 90 to 95 % on the sale of medicines, with clinical activities representing only 5 to 10 % of their turnover. Although it may seem that the government servants have often left this business to the private sector the situation is not always clear. Indeed, the mission was able to confirm the persistence of a trade in veterinary medicines which is not controlled and which is run by traders who are neither licensed nor qualified. Moreover in the areas which are less populated and therefore less profitable, it is the government servants who are ensuring the distribution of the products on behalf of the private practitioners.

The first official private practice was installed in 1990, being part of the privatisation assistance component of the PARC programme , which had not yet started. At the time there were are about 154 private practices installed, of which 20 were dispensaries and 134 “depots” ; and employing a total of 462 young graduates. These figures are, however, only indicative according to the same study.

44 of these units had already benefited from a loan from a “Small and Medium Sized Business”

project financed by the EU, for healthcare practices and pharmacy distributors; the shift of this project towards a banking structure had, however, stopped this development. The total funds committed to this project were about 200,000 ECU , to which must be added about 45,000 ECU financed by Phase II of PARC, under the heading of “personnel contribution” to candidates for privatisation.

According to the study of the privatisation, there was no re-reimbursement to PARC and the recipients saw little likelihood of clearing the loan.

There are many factors which contributed to the decline in turnover of many of the businesses and the consequent serious difficulties in repaying their start-up loans. These factors included the gradual saturation of those regions in the south which were most financially interesting ; ill-organised set-ups with haphazard funding ; the rise in the cost of medicines after the devaluation and the consequent drop in consumption ; and, finally, fraud. Many of these practitioners have attempted or hope to remedy the situation by adding to their veterinary practice some production activity such as : fattening, Tabaski sheep for religious festivals, or butchery. However bank interest rate makes it unfeasible to finance these types of activities. Moreover, future loans from PARC will exclude speculation in businesses in the same sector.

The mission was also able to establish that with a lack of support for the management and accounting side of their businesses most of the practices which were visited in the Bamako area had difficulties in managing their business. This confirmed the observations made in the study on privatisation.

Lastly, with the exception of a licensing fee for some of them, it seems that these practices are largely untroubled by taxation and particularly any tax on their turnover.

The approach has thus been generating an informal sector for the distribution of medicines, in which control, including quality control, has been slipping away from the Government and the structures which have been established. Moreover the financial strength of the networks which were set up appears also to be weak. In these conditions it is not at all clear that any consolidation of the legislation, were this to be a necessary condition, would be sufficient to make this approach more solid and improve the service to the producers.

The health mandate is accepted in principle and there are great hopes for it, but the legislation still needs to be developed to achieve this. It is still sometimes allocated by the Regional Authorities. In terms of financing future mandates the Government will only keep those to do with extension, of inspection and policing while the health costs will be borne totally by the

vaccinations, even if the returns remain less than the real costs of the campaign.

There is no comprehensive study of the effect of health costs on the producers, the profitability of individual breeders or their attitude to it. The mission considers that in the absence of this input, it is necessary to treat with caution any claims which are made about the profitability of veterinary practices as a result of any future increase in the consumption of medicines.

6. THE PARC PROGRAMME

6.1. PARC's activities

An early phase of PARC, indeed immediate action, enabled Mali to guarantee vaccination during two vaccination campaigns in 1988 and 1990. Planned for two years, it in fact took three. It also made it possible to lay the foundations of a Vaccine Fund through the recovery of costs. The cost of this first phase was about 1.8 million ECU

The second phase, financed by the EU to the tune of 600,000 ECU was planned for one year. It made possible the vaccine campaigns of 1991/1992 and 1992/1993 and helped to set up the young veterinary graduates mentioned above. Freeing up the Vaccine Fund and the use of what remained of PARC made possible the continuation of the vaccination campaigns until financing for PARC III came on stream (1994/1995 campaign)

The third phase of the project was the subject of the agreement signed in August 1993 for a total of 3.6 million ECU, of which 2.4 million was through RIP and 1.2 through NIP. The agreement foresees four elements :

- institutional support to DNE, including an animal health component centred on rinderpest but also CBPP, brucellosis, development of the epidemiology, zoological follow up, water resource management and pastoral ecosystems. The sum allocated is 2.06 million ECU ;
- support to rearing groups : 580,000 ECU ;
- start-up support to members of the veterinary profession : 0.6 million ECU ;
- support to LCV, for training : 128,000 ECU.

Only the DNE support part is currently in force and a amendment of the agreement has been requested by the responsible Ministry in May 1996 for other components to be implemented. In

practice, the section dealing with support to rearing groups was considered insufficiently prepared and that dealing with support for privatisation as requiring a revision, in light of the results of the preceding phase, of the way in which it was going to be implemented. The section relating to LCV is on hold and awaiting the large scale study on the production of veterinary vaccines in Africa which should indicate what opportunities there are. Moreover the different time scales planned for each element pose organisational problems for the overall co-ordination. The amendment requested proposes a harmonisation of the project lengths to 5 years and the setting up of the technical assistance needed to support the conceptual activity, as well as the development of appropriate instruments and the adjustment of the organisational structures of other components. In the same vein, it is considered essential to undertake a precise prior study of the component to support the producers. .

The organisation needed to co-ordinate the programme and its integration into the centre of the DNE were the subject of serious thought, particularly within the DNE itself. It led to the setting up of different components under the direct responsibility of structures which had been chosen from within the parent Ministry, in addition to strengthening the co-ordination with technical assistance. Lastly, it should be noted that the discussions about the sharing out of responsibilities were sometimes resented for being seen as questions about personalities and so complicating further an institutional landscape which was in the throes of change.

Whatever the causes, it seemed to this mission that the degree of prior preparation for the project was insufficient and that in particular it would be very useful to have a study, in some depth, of the results of the first phases.

6.2. The control of rinderpest

The development of the rinderpest situation is shown in the table below¹⁵, which illustrates clearly the effect of PARC since 1988. After 8 years of campaigns and more than 12 million vaccinations the rate of immunity in the herd was estimated at 77.3 % of the increase in herd size (1994).

¹⁵ This series was supplied by the Co-ordinator for the PARC-MALI project. It is a good illustration of the incidence from 1980 of the disease in this type of sahelian country. in a herd pre-immunised to between

<u>YEAR</u>	<u>OUTBREAKS</u>	<u>SICK</u>	<u>DEAD</u>	<u>VACCINATIONS</u>
1980	26	584	350	3.046.511
1981	21	712	712	2.812.382
1982	21	339	170	2.825.734
1983	17	492	246	1.959.448
1984	44	1,044	892	2.452.972
1985	20	1,096	537	1.705.189
1986	2	21	17	1.405.043
1987	0	0	0	2.822.771
1988	0	0	0	1.636.043
1989	0	0	0	2.330.293
1990	0	0	0	2.116.944
1991	0	0	0	1.656.780
1992	0	0	0	1.691.458
1993	0	0	0	1.684.661
1994	0	0	0	1.230.353
1995	0	0	0	1.517.668

6.3. Other activities

The development of an Epidemiology unit has not really begun despite the acknowledged importance of such a unit ; the split of responsibility and resources between the DNE and LCV seems to be at the base of the problem.

The setting up of systems for zoological follow up and continuous statistics on animal production caused field studies to begin in 1995. But the difficulties encountered showed clearly how these systems can be clumsy and awkward while still not producing incisive results. The improvement of the information technology unit at the DNE itself is happening, but even here the collection and transmission of information is a first step which it is difficult to organise.

The follow up in the grazing areas encountered the same type of difficulties in 1995. One could, on the other hand, raise the question as to whether there is an opportunity to invest in a complementary study in light of how much has been done and is being done elsewhere.

The other components are still at the stage of putting together their institutional framework or preparing preliminary studies

ANNEX 5.4. - CHAD

1. LIVESTOCK IN THE ECONOMY

Chad has a population of 6.3 million inhabitants, of whom 70 % live in rural areas, in an area of 1.28 million sq kms. Only 1 % of the population lives in the 47 % of the territory which consists of the Saharan zone in the North. The country is characterised by being an enclave, by the narrowness of both the domestic and neighbouring markets, as well as the dryness and fragility of its habitat. The GNP per head was 170 ECU per annum in 1991, and grew at an annual rate of 3.8 % over the preceding decade.

Agriculture contributed 43 % to PIB. Livestock represented 29 % of this GDP, 29 % of exports, and directly involved 40 % of the population.

At the end of 1995, the herd was estimated at 4.7 million bovines, 6.0 million small ruminants, 0.6 million equines and asses, 0.6 camels and several thousand pigs.

Registered exports¹⁶ on the hoof in 1995 involved 117,162 bovines, 13,921 small ruminants and 1278 camels. Although slightly down on 1994 (127,646 bovines), the registered level of exports is noticeably up on the level of some years ago : an average of 34,078 bovines during 1990-1992. To these exports on the hoof must be added about 15 tonnes of dried meat per year as well as relatively important quantities of leather and hides.

The registered slaughtering involved 100,178 bovines, which is more or less the same level as over the past few years. The average annual consumption of meat was estimated at 9.4 kg per head (24.2 kg for the urban population and 5.4 kg for the rural population) and the annual growth in meat production was 1.7 %¹⁷.

The Government is proposing to encourage the rapid development of an efficient private sector where this is more advantageous than a public sector. To this end it is working on three main axes :

¹⁶ Fraud is evidently serious. The PARC instruction document (March 1994) estimated that 200-250,000 export cattle could be controlled (and taxed) each year.

- liberalisation and privatisation of the importation and distribution of veterinary medicines as well medical practices ;
- reducing the administrative and fiscal constraints on the commercial network ;
- extending the rights of the producer associations in respect of land and water management of the grazing areas.

2. ANIMAL HEALTH

Rinderpest has not been seen in Chad since 1988, but the country adjoins Sudan, where it remains endemic. Bearing in mind the migratory grazing habits of the area and the trade in cattle, the disease continues to represent a grave menace. The country is part of the *cordon sanitaire* which protects West and Central Africa and it continues to try to achieve maximum vaccination cover, particularly in the eastern half.

Vaccination against CBPP is conducted at the same time.

Other important pathologies in the area consist of foot and mouth disease (48 outbreaks notified in 1994), caprine contagious pleuropneumonia, pasteurellosis, blackquarter, rabies, sheep pox, and Newcastle disease for poultry.

Finally, numerous parasites have been diagnosed including trypanosomiasis in the southern part of the country.

3. LIVESTOCK SERVICES

The Ministry for Livestock and Pastoral Water Management (Ministère de l'Elevage et de l'Hydraulique Pastorale - MEHP) controls this sector by means of 5 Departments.

- The Director General (DG) ;
- The Department of Livestock and Animal Resources (Direction de l'Elevage et des Ressources Animales - DERA) ;
- The Department of Veterinary and Zoological Education, Training and Research (Direction de l'Enseignement, de la Formation et de la Recherche Vétérinaire et Zootechnique - DEFVRZ) ;
- The Department of Pastoral Organisation (Direction de l'Organisation Pastorale - DOP) ;
- a Department for administration and finance.

The MEHP Ministry received between January 1989 and June 1995 financing of about 36 million ECUs from the World Bank, African Development Fund, FAC - Fonds d'Aide et de Co-operation, and the Danish aid programme as well as from the Government and the livestock farmers for setting up a National Livestock programme. This project was involved with the organisation of the livestock farmers, the distribution of inputs, rural water management, research, extension, equipping the regional services, and institutional support to the MEHP. Because of its size, it acquired the role of co-ordinator of activities in the sector and tied in strongly with the activities of PARC I and II, even though their financial management remained independent.

Currently, apart from what remains of PNE, the sector still receives some benefit. This is principally from a significant regional project in East Chad which is financed by FAC and whose activities are also similar or complementary to those of PARC.

Finally, one must mention the Farcha laboratory. This is independent of the livestock administration and fulfils the function of research, dissemination information about health and animal production as well as the production of vaccines. It is financed in various ways and is also the headquarters for a number of specified projects. It serves as a laboratory for diagnosis and reference control, and, in particular, the base for the epidemiological network (REPIMAT).

The number of staff at MEPH is in constant decline : from around 900 in 1989 they have now dropped to 631 in 1996. A careful assessment of the activities of the staff and of the PNE made it possible to make a considerable reduction. Subsequently, a freeze in recruitment from 1992 and "natural wastage" from retirements increased this reduction.

The Farcha laboratory claims to employ about 150 people, of whom 40 are permanent staff.

4. FINANCING THE PUBLIC SERVICES

The funds allocated from the Government's General Budget explain this significant reduction of personnel. But these costs continue to represent more than 90 % of the direct public financing.

THE NATIONAL BUDGET FOR MEPH

<u>YEAR</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Budget of MEPH ¹⁸	1.176	1.162	917
of which :- personnel	1.132	1.084	835
- other	44	78	82

(in thousands of ECU. 1 ECU = 647 FCFA)

Funding the operating costs of the Ministry, apart from the cost of personnel, should be essentially covered by the "Livestock Fund" (Fonds Elevage). The receipts for this Fund are mostly derived, for the moment, from taxes on exportations by the sector. Healthcare type receipts were down in 1995 as a result of the growth of privatisation as can be seen from the table below. For 1996 the running of MEHP will take 185,000 ECU from the Fund, of which 133,000 will be for the purchase of trypanocides and telluric fever vaccines. This Fund is managed by the central administration of the PNE and the Director General's Department (DG) of the Ministry.

RECEIPTS BY THE LIVESTOCK FUND

<u>YEAR</u>	<u>1988 à 1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
- Consultations and treatment	20	4	5	4
- Vaccine sales	263	40	72	36
- Export taxes	154	23	231	379
- Sundry activities	3			
- Financing	31	13	13	9
TOTAL	471	80	321	428

(in thousands of ECU. 1 ECU = 647 FCFA).

¹⁸ To permit comparison, the Direction de l'Hydraulique et Assainissement (Department of Water Management and Quality) and the O.N.H.P.V., which were only attached to MEPH in 1995, have been

External financing is, nevertheless, more important to this sector than the national budget and the Livestock Fund combined. According to the finance department of the Ministry (MEHP), the 2 principal projects (apart from PARC), the PNE and PMDR, contributed, in 1996, as much as 2.25 million ECU. The only costs of the 94/95 vaccination campaign which were borne by PARC and PNE were about 432,000 ECU.

There is also a PARC vaccination fund (obligatory vaccinations done by the public services) whose management is shared by the Ministry and the Delegation and for which the running is delegated to the DERA. The receipts are collected by the heads of each vaccination team but the rate of recovery is very low : for the 94/95 campaign they amounted to less than 55,000 ECU. This Fund is therefore not able to finance the public campaign, but, most importantly, cannot even guarantee to provide the serological control which is essential to a campaign and to epidemiological monitoring.

In Chad, as elsewhere, there has been no study of the effect of recovering the costs of the public services on the economics of the breeders and their commercial performance and therefore of the feasibility of the sector becoming self-financing. On the other hand an analysis of the commercial network does exist.

Nonetheless, and despite the fact that much of the system works well, it seems certain that financing the services will not be completely possible by means of charges levied directly on the sector. It is particularly worrying to note that no lasting funding of epidemic monitoring is yet planned.

Lastly, it should be pointed out that in a situation of this type, where control is difficult, any taxation on the commercial or production activities is often an incitement to fraud. This fraud can seriously harm the animal health objectives, particularly in terms of controlling animal movement as evidenced by the exports on the hoof. Any requirement for the sector to be self-financing would be a serious hindrance to the overall health policy.

5. REFORM OF THE SERVICES

Various legislative and regulatory measures now authorise the liberalisation of medical practice, trading in medicines, consultancy and providing health certificates. There is also a professional association (Ordre) which guarantees a code of practice.

The legislation relating to veterinary medicines is summarised below¹⁹. It should be noted that only private veterinarians are authorised to sell at a retail or "extra-muros" level and in practice only two companies are authorised to import. Also, currently taxation represents more than 30 % of the price paid to the importers and wholesalers while the private veterinarians, the retailers, are not taxed. The controls at both the land frontiers and the markets within the country are difficult to conduct and are sporadic. It is clear that in these conditions fraud is rife both on imports and at the retail stage. Independently of the problems of the "feasibility" of different links in the chain, the difficulty in applying the rules raises the question of the quality of medicines which are imported fraudulently and whether a satisfactory retail distribution exists across all the country.

The privatisation is relatively recent and its viability essentially depends on carrying out the health care policies, particularly for rinderpest vaccination. In 1992, 9 government employees obtained credits from the EDF(132,500 ECU in total) to set up in the private sector ; the operations, based mainly on the sale of medicines with some clinical work, all showed negative financial results. In 1994 8 private veterinarians, and a further 20 in 1995, were granted health licences for vaccinations. They employ 2 or three vaccination teams each (without paying social charges). In terms of efficiency and costs of a campaign, this experience has proved particularly interesting. The vaccinations done by these licensees achieved 92 % and 86 % of the targets set for their action areas. In contrast during the 1994/95 campaign the public veterinary services which concentrated on the Eastern area which corresponds to the *cordon sanitaire* only achieved 37 % of target. In terms of cost, and despite often skimpy accounting, the cost of vaccination by the licensees was estimated at about 100 FCFA (0.15 ECU) against a minimum of 275 FCFA (0.43 ECU) for the public services. Admittedly, the start-up loans had not yet been arranged and the private sector costs do not take into consideration either the costs or repayment of financing nor in most cases depreciation on a vehicle. For all this, the experience of a licensed veterinarian who is responsible for forty or so auxiliaries in the field looks like a good solution from both a technical and a financial point of view.

In any case, effective control of vaccination should be strengthened because it is considered too fragmented. The problems encountered seem, however, mostly due to the problem of human behaviour which has resulted from the transfer to the private sector of "supplementary", or illicit, income which the public sector employees received in the past for jobs which have now been delegated.

The private veterinarians have formed an association. Over and above the issue of their escaping taxation, they are noted for not being present in the field outside specific campaigns. In fairness it must be said that some of them are punctilious about other operations such as vaccination against telluric illnesses and major sales of medicines. However in terms of better services to the livestock farmers, the aim of PARC, it is this presence in the field which is needed ; it is hoped, in fact, that campaigns of vaccination against disease are only a temporary measure. The private sector has understood very well that these licenses represent, above all, an opportunity to create a rural client base. But those whom the mission met had few hopes about the long term viability of such a clientele, particularly in the Sahel, because they consider that there are limited opportunities for selling medicines. Moreover, they are sceptical about whether the authorities can respect the legislation on prices and fraud or guarantee their geographical sectors in the long term in the face of other candidates who want to start up there. Finally, in the immediate future, they consider that the conditions proposed for the start-up loans (10.75 % over 3 years) are too onerous ; but this still needs to be checked.

Other complementary opportunities for the private sector, in production or commercial activities, seem less obvious in light of the narrowness of the existing markets and the networks which are already in place. Currently PARC is considering, anyway, limiting its financing strictly to healthcare activities.

Cost recovery has been practised for several years for both services and non-obligatory vaccinations, even though the rates of cost recuperation have been too low. For obligatory vaccination against rinderpest and CBPP the charge since the 93/94 campaign has been 25 FCFA per vaccination ; this tariff has been increased by 25 FCFA per campaign to reach 100 FCFA in 1997. These sums and their compulsory increases seem to have been decided upon as the limits acceptable to the livestock farmers.

6. THE PARC PROGRAMME

6.1. PARC's contribution

The first phase of the project in Chad lasted from 1989 to 1993 with community financing of 2.5 million ECU on PIR, with 3 components :

- the fight against rinderpest and CBPP (1.5 million ECU) ;
- improvement in the distribution of veterinary products (0.6 million ECU) ;
- promoting the privatisation of veterinary medicine (0.4 million ECU)

The costs of liaison to the tune of 569,000 ECU was agreed through NIP for the 1993/94 campaign.

The second phase of the project, running currently, was the subject of an agreement concluded in May 1995 for the sum of 4.6 million ECU, of which 1.5 million through NIP and 3.1 through RIP. It is planned as three components :

- Component 1 : strengthening the veterinary and upkeep activities of the *cordon sanitaire* in order to protect West and Central Africa ;
- Component 2 : privatisation of the veterinary profession
- Component 3 : strengthening the organisation of livestock farmers.

The management of each component is the responsibility of a different department of the MEHP : the DSA (Department of Animal Health) for component 1, DFRZV for component 2, and the DOP for component 3 - as shown in the organigram below.

6.2. Rinderpest control

Although interrupted by the problems of security, the successive campaigns were important as can be seen from the table below. It must be noted, however, that the rate of cover within the *cordon sanitaire* remains relatively weak and lower than that which exists in the West of the country. (Practical difficulties hindered the assessment of the rate in 1994/1995 and that for 1995/1996 is still in being assessed. The 1995/96 assessment is aimed, moreover, at the control of vaccinations, particularly those done by the private sector, more than as global sero-surveillance).

<u>CAMPAIGNS</u>	<u>VACINATIONS</u> <u>TOTAL</u>	<u>LEVEL OF IMMUNITY</u> <u>IN THE CORDON</u>
1988/89	2.492.000	-
1989/90	2.688.000	-
1990/91	2.036.000	-
1991/92	3.255.000	34,6 %
1992/93	3.439.000	30,4 %
1993/94	1.600.000	48,7 %
1994/95	2.458.179	50 %
1995/96	1.807.457	

There is also an allocation for support of the epidemic monitoring done by the Farcha Laboratory. A network is being set up, based on 30 outposts, volunteers (some remuneration is envisaged if the results are positive) and the central laboratory. It will deal with fifteen illnesses, including rinderpest, for which it is standardising the format of reports and sampling and is publishing a bulletin about the activities. The network are being complemented by the current equipping of the laboratory for emergency intervention, for which a special fund of 1 million ECU is set aside. Thus, that mix which is so important for the cordon sanitaire, of surveillance with an emergency intervention facility, is being put in place.

6.3. Other activities

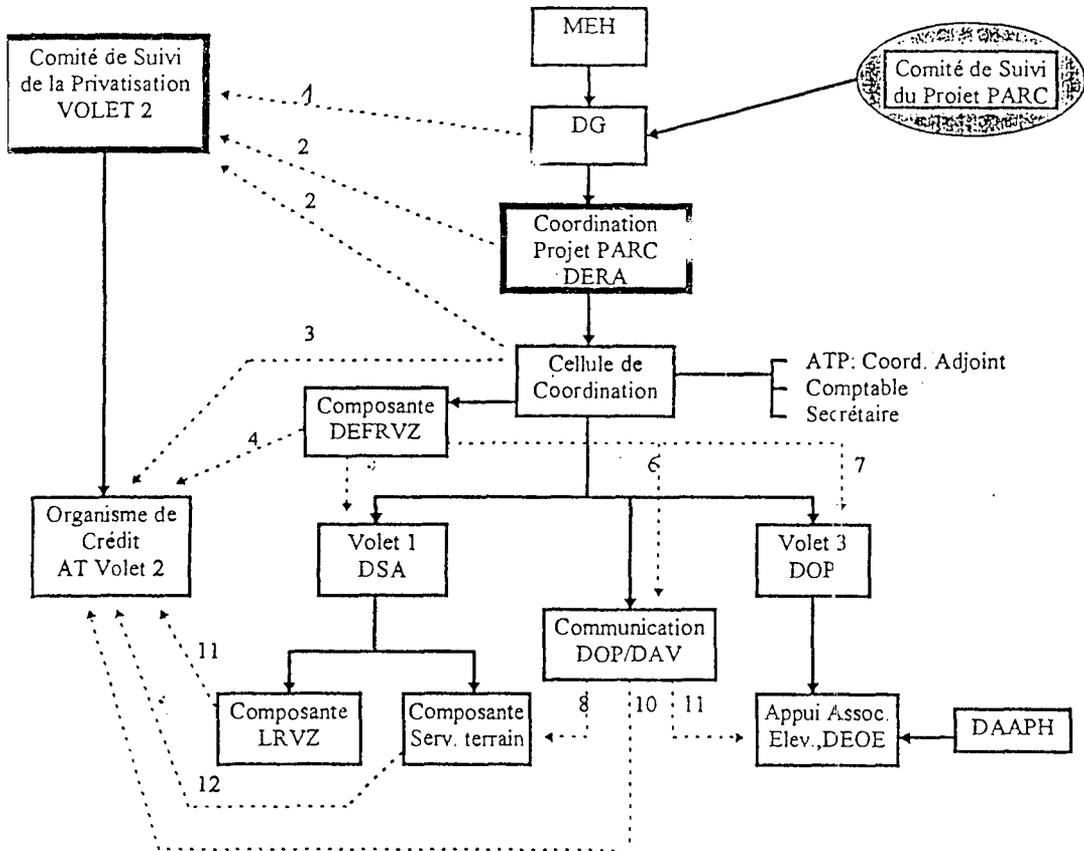
The project gave help in modifying the legislative texts relating to veterinary medicine. Similarly it was effective in helping the central pharmacy before its privatisation

On the privatisation of veterinary medicine, apart from the results mentioned above, PARC set up an independent Privatisation Technical Support Committee to give advice to candidates and the bank (see organigram below). It is currently negotiating an accord with a local bank which will take over the loans. It plans to provide management training for the candidates as well further follow up (technical assistance). This experience should, moreover, demonstrate yet again how it is possible to guarantee immediate financial autonomy to units which are set up in this way, and show what they can do in terms of services to the livestock farmers (other than vaccinations), particularly in the Sahel area.

Component 3 of PARC II wants to strengthen the work done by the DOP with the livestock farmers associations in financing, in particular, training (600 team leaders and 200 auxiliaries), small projects, the operations of extension auxiliaries, and communication activities. PARC will also act in concert with other lenders (IDA via PNE and FAC via PMDR) and take care to concentrate on those areas where no other local projects exist.

DETENTION ET DISTRIBUTION MEDICAMENT VETERINAIRE

<i>CATEGORIES</i>	<i>AUTORISATION SPECIFIQUE</i>	<i>DETENTION</i>	<i>VENTE</i>	<i>VENTE EXTRA MUROS</i>	<i>VENTE FRACTIONNEE</i>
<i>Praticien privé</i>	<i>NON</i> L'autorisation à pratiquer la médecine vétérinaire privé suffit	<i>Tout Médicament Vétérinaire.</i>	<i>Tout Médicament Vétérinaire</i>	<i>Dans le cadre de l'activité professionnelle</i>	<i>OUI</i>
<i>Produit patenté</i>	<i>OUI</i> (avec examen)	<i>Liste restreinte</i>	<i>Liste restreinte</i>	<i>NON</i>	<i>NON</i>
<i>Produits vétérinaires</i>	<i>OUI</i> -Adm. -Encadrement	<i>Liste restreinte Sur Ordonnance: tout médicament pour un problème spécifique</i>	<i>Liste restreinte Sur Ordonnance: tout médicament pour un problème spécifique</i>	<i>Aux Eleveurs membre du groupement seulement</i>	<i>NON</i> ²
<i>Produits vétérinaires</i>	<i>NON</i> L'autorisation Med humaine med vet	<i>Tout médicament Vétérinaire</i>	<i>Libre Liste restreinte Sur Ordonnance: tout médicament pour un problème spécifique</i>	<i>NON</i>	<i>NON</i>
<i>Produit de gros</i>	<i>OUI</i> obligation d'engager un vétérinaire privé à plein temps	<i>Tout médicament vétérinaire</i>	<i>Aux Vététéraires: tout médicament Aux pharmaciens: Tout médicament Aux Commerçants patentés: Liste restreinte Au public: NON</i>	<i>NON</i>	<i>NON</i>



-----> liens fonctionnels

FIG 1 - ORGANIGRAMME DU PROJET PARC

- | | |
|---------------------------------|---|
| 1- Présidence CSP | 7- Formations Volet 3 |
| 2- DERA et ATP membres du CSP | 8- Commun. campagnes de vaccination |
| 3- Fonctionnement du AT Volet 2 | 9- Commun. Associations Eleveurs |
| 4- Formation privés | 10- Commun. Campagnes privés et privatisation |
| 5- Formations DSA et LRVZ | 11-12- Contrôle mandats privés |
| 6- Formations Communication | |

ANNEX 5.5 - KENYA

1. THE ROLE OF LIVESTOCK IN THE ECONOMY

Kenya covers a total area of 580,367 sq km on both sides of the Equator. The population, which is growing fast, is approaching 28 million. The greater part live in the areas described as “high potential” in the centre and the West, which represent only a third of the country.

The Department of Veterinary Services, composed of 7 Divisions, is placed under the authority of the Permanent Secretary of the Ministry of Agriculture, Livestock Development and Marketing (MALD&M). It is represented on the ground by a reporting structure which goes down to the level of the Province and then District. The local services are, in turn, subdivided by division, locality and sub-locality.

Despite the progress of industry and tourism, it is still the agricultural sector which produces the greatest part of the GNP (30 %) and employs 75-78 % of the population. Livestock's part in the agricultural GNP is about 20 % with production in the order of 120,000 tonnes of meat and 1.6 million litres of milk

The country has about 13 million cattle, 8 million sheep and 20 million goats. Of the cattle 10 million are beef cattle, mostly zebus, and 3 million are a dairy herd made up mostly of exotic taurine races or cross-breeds. Nearly 40 % of the oxen are reared in large commercial ranching operations. In contrast, 85 % of the dairy cattle are in the hands of small owners.

2. LIVESTOCK HEALTH

Contrary to what had been expected, animal health, which is characterised by a wide spectrum of illnesses, remains one of the important constraints on the livestock sector. Rinderpest, which was believed to have been controlled, returns periodically to threaten the domestic herd as well as the wildlife to such a degree that nowadays one is forced to accept the idea that there exists an old endemic zone. It is possible that over-confidence by the Kenyan veterinary services had allowed them to overlook this for decades. Contagious bovine pleuropneumonia particularly affects the grazing areas in the North and the East of the country ; foot and mouth is present in all the strains A,O,C,SAT1 and SAT2 and poses a serious problem for the dairy herd in the regions of “high potential”. Ticks and illnesses transmitted by these (notably East Coast Fever - ECF) represent a important threat to the dairy industry and intensive rearing. Small ruminants

are particularly affected by PPR, sheep and goat pox, blue tongue and contagious caprine pleuropneumonia. Several other pathologies of varying frequency can occur on occasion, such as blackquarter, Rift Valley Fever, brucellosis, tuberculosis and others.

3. LIVESTOCK SERVICES

The Kenyan livestock services seem to have suffered from numerous re-organisations introduced at the heart of the Ministry of Agriculture, and particularly over the past 20 or 30 years in the Department of Livestock Affairs. The veterinary department was effectively integrated into the administrative structure of the agriculture department, from the Director right down to the lowest field agents between 1969 and 1979 and again between 1983 and 1986. This experience seems to have been disastrous, according to the people involved. It was only after the veterinary services were separated out and their responsibilities managed independently that they re-established their proper role. Kenya has one of Africa's largest number of veterinary personnel in terms of the ratio to number of animals. It consists of 963 veterinarians, (of whom 400 are based at Nairobi/Kabete), 166 graduate livestock officers, 1588 senior animal health assistants and 432 junior assistants together with almost 2000 dipping technicians and 6000 sundry other personnel.

Kenya has three principal laboratories : Embakasi, which manufactures vaccines for foot and mouth disease ; Muguga, producing vaccines against rinderpest and CBPP ; and Kabete, which mostly produces vaccines for small ruminants and poultry. The Muguga and Embakasi laboratories have equipment for more complex diagnoses.

4. FINANCING THE SERVICES

It was not possible to find out, with any precision, the actual budget of the Department of Animal Health. It was established at £K 88 million, a bit more than 1 million ECU, of which 60% was for salaries and 40 % for investment and operating costs. This amount had hardly been changed, in absolute terms, for ten years and had therefore been considerably reduced in real terms. The budget of the Ministry of Agriculture was set at almost £K 238 million, a bit more than 5 million ECU. These amounts are included in the National Budget of Kenya of £k 9.393 billion. They represent, therefore, 1 and 2.5 % of the total budget even though the sectors produce, respectively, 6 and 30 % of the GNP.

Unlike some years ago Kenya no longer has available the same comfortable level of aid funds from lenders whose attitudes have become tighter since 1991-1992. Since the recent closing of

the World Bank's animal health services project, the PARC programme remains the sole project providing direct assistance to the livestock sector in Kenya.

5. REFORM OF THE SERVICES

The privatisation of veterinary medicine is part of a process which dates back to 1988 and grew in the aftermath of the Government stopping the systematic recruitment of graduates. At the end of 1994, the 952 Kenyan veterinarians were employed as follows²⁰ :

- 670 in the public services
- 98 in the Universities and research laboratories
- 154 in private practice
- 30 in other activities

Veterinary practices are based on the clinic, the sale of medicines, and services such as artificial insemination. It is essentially limited to areas which are described as "high potential"; not surprisingly for a profession which is entirely private and depends on the capacity of clients to pay. It is rare to find vets in the areas of extensive grazing (the areas of commercial ranching). They are non-existent in the traditional pastoral zones, by reason of the lack of clients who can pay, the costs of travelling long distances and the limits on the owners' purchasing power which results from their method of production and marketing²¹. Moreover, according to the same study, the clientele profile changes according to the regions : grazing areas consume 58 % of the total of drugs sold and only 16 % of the services, while the inverse applies in the areas of high potential which consume 84 % of the services and only 42 % of the medicines.

Kenya has a body for upholding the code of practice, the Kenya Veterinary Board (KVB), and an association for protecting the interests of the profession, the Kenya Veterinary Association (KVA).

The process of privatisation seems limited, apart from the financial aspects, by the restrictions on services which can be provided by animal health technicians who are not veterinary doctors, and by the restrictions which limit the distribution of certain medicines.

²⁰ Source : Kenya Veterinary Association Privatisation Scheme (KVAPS).

²¹ Source : "Spontaneous private veterinary practices evolved in Kenya since 1988" FAO. 1995.

6. THE PARC PROGRAMME

6.1. PARC's activities

At the time of the start of PARC Kenya figured on the list of countries which need an emergency campaign. In fact PARC had to support 2 successive operations in the country :

- The PARC immediate action programme (0.695 million ECU) which was programmed to start in September 1987 but was only able to start field operations after some delay. The objective was to vaccinate 80 % of the bovine population in the frontier districts of the North and the West, as a *cordon sanitaire* on the periphery, so that any eventual outbreaks could be treated by ring vaccinating. The EU took responsibility for the various costs of the campaign with the exception of salaries and the administrative costs which were covered by the local contribution.
- PARC Phase I (2.4 million ECU), whose start was considerably delayed by the wait for regulations to introduce the recovery of costs for services and livestock inputs. The objective, however, was very much complementary because it was designed to strengthen rinderpest control by reinforcing the front line fight (vaccinations and sero-surveillance) and the supporting veterinary services (activities to control and test for pleuropneumonia, foot and mouth disease and acaricides). It included a privatisation component.

6.2. Control of Rinderpest

Since the effective start of PARC Kenya has managed to do between 1.2 and 3 million vaccinations rinderpest annually, which is between 10 and 25 % of the bovine herd. This level of performance, even if it is only related to the frontier districts can barely be enough to build the immunisation to a sufficient level to guarantee effective protection against an epidemic size of outbreak imported from externally, or even against a possible spread of the virus within its borders.

There has not, moreover, been a complete lack of incidence of rinderpest infection since 1988, with outbreaks being found even at the very gates of Nairobi.

	<u>Locality</u>	<u>District</u>	<u>Province</u>
1988	Njiru	Nairobi	Centre
	Ruiru	Kiambu	Centre
	Ewaso Kedong	Kajiado	Centre
1989	Alale	West Pokot	R.V.P. province
1990	Lokabuki-Oropoi	Turkana	R.V.P. province
1991	Alale	West Pokot	R.V.P. province
1994	Tsavo East	Taita-Taveta	Coast province
1995	Tsavo West	Taita-Taveta	Coast province
	Lokichogio	Turkana	R.V.P. province
1996	Fino	Mandera	N/E province

As can be seen, these outbreaks, although separated in terms of time, are spread across the whole of the country and cannot easily be linked to each other. If those in the Nairobi area can be attributed to the trade in animals and those in West Pokot and Turkana to infiltrations of animals from Uganda and South Sudan, the outbreaks in Tsavo and Mandera can hardly claim to have origins anywhere but in Kenya. Indeed the virus typology highlights the fact that they belong to a family (RGK1) which can be associated only with an outbreak which occurred a long time ago in 1962 in the Marsabit area and subsequently spread towards the South East. Recent retrospective research tends to show, moreover, that important outbreaks of rinderpest, of varying severity, have been smouldering away in the North East of Kenya and in Southern Somalia since the 1980s. The most noticeable outbreaks have been : 1980-1983, from Ethiopia down to Somalia across the district of Mandera and coinciding with the outbreak among the wildlife of Serengeti ; 1985-1988 from Somalia as far as the region of El Wak ; 1991-1993 from Wajir to Mandera and in Somalia ; and 1994-1996 from Mamdera to southern Somalia.

These repeated incidents do not seem to have been picked up by the Kenyan animal health services. They should be taken all the more seriously, however, if they consist of more discreet forms of the disease which by their nature put in question yet again the efficiency of a disease eradication strategy which is only of interest to Kenya.

Moreover the development of these outbreaks makes one think of the existence in Kenya itself of an endemic zone situated in the area between Garissa and Marsabit which is little frequented by the government representatives ; the virus could have circulated here un-noticed for more than 20 years.

The repetitiveness of this type of incident, the importance which it could have for the strategy of PARC, and the difficulty which the mission had in obtaining any incisive information about how much control of the situation there is, makes us recommend an evaluation in depth and by a neutral party of the disease situation in Kenya.

5.3. Other activities

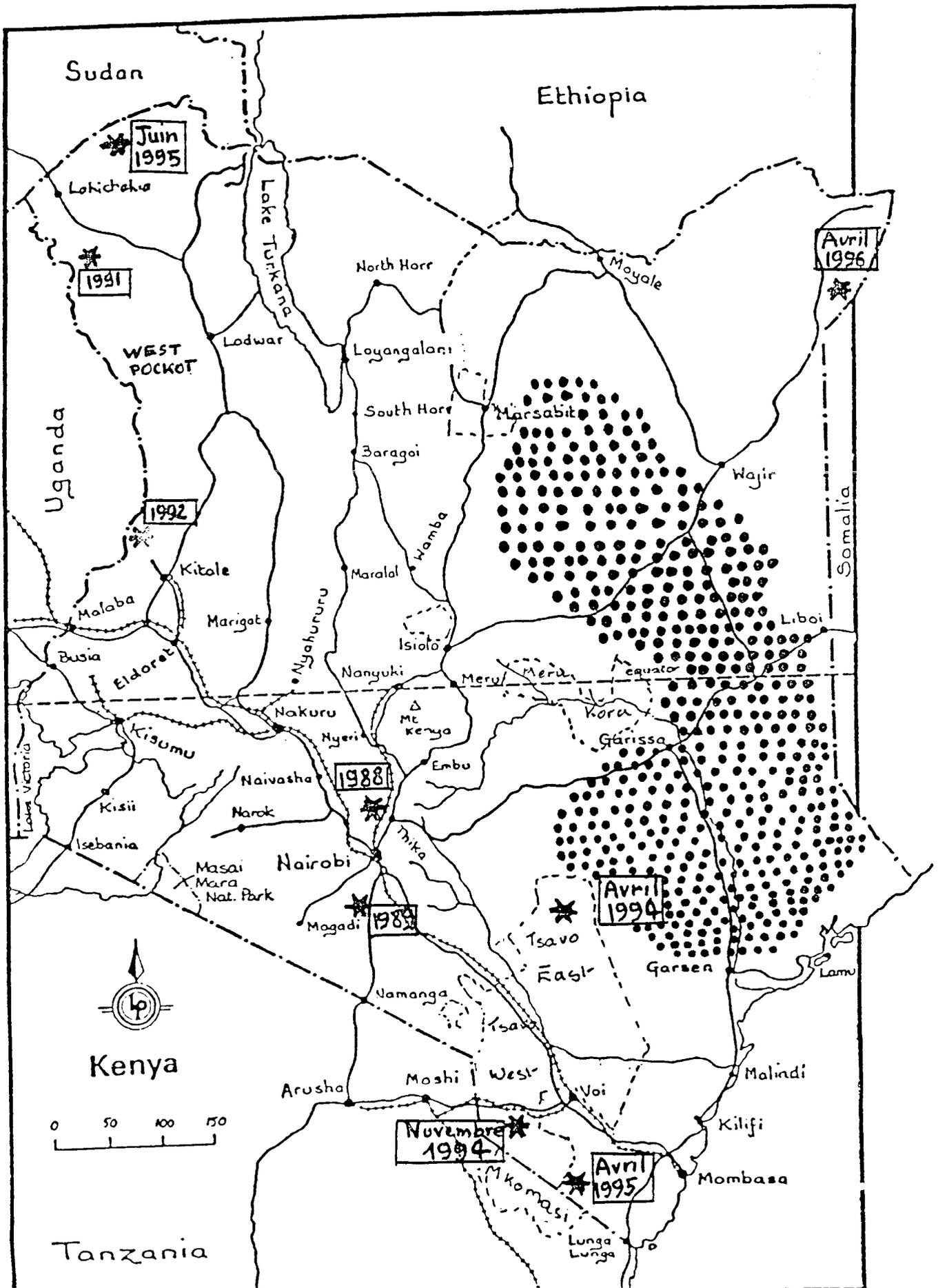
The component for providing assistance for privatisation began later, in October 1994, when the structures were being set up. PARC established a guarantee fund (357,000 ECU) through a commercial bank which administers the loans directly, using its own funds. The return on this deposit (11 to 12 %) makes it possible to subsidise the interest rate on loans to individuals (10 to 11 % against the normal 18 to 19 % while the mission was there) and to set up a small team to help with managing individual veterinarians. This team is based at the KVA and is run by a local consultant who has management rather than technical skills.

Candidates prepare their application with the help of members of this unit and then submit it for the approval of a technical committee whose membership always consists of a majority of veterinarians. This committee, as well as the "Steering Committee" which guides this unit as well as the project, only have a minority of members from the Kenyan administration - which guarantees their independence - and involves the bank. The bank examines the application according to their own criteria and in particular the risk guarantee, which has to be complete, and the personal contribution. Overall the return to the lender is quite high. However by accepting this rate there is the advantage of ensuring that applicants are selected according to the financial feasibility of the project and on their capacity to be committed to its success, as well as access to permanent management support and someone to process the loans.

The support cell organises training to show applicants how to prepare their applications and run their business ; it acts as an interface between them and the bank, if necessary, but above all it obtains management and accounting assistance for them once the agreed loan is in position. However, it should be noted that for the time being no direct technical guidance is planned.

Currently, the project has concluded 17 loans while 3 others are approved ; the aim of 20 loans in 2 years has thus been achieved. The average size of the loans is slightly more than 8,000 ECU and the rate of repayment is 100 %. The average age of the applicants is 32 years and they are mostly already installed and wishing to expand (for example, by an insemination unit or purchase of a vehicle). All the recipients of loans are practising in the so-called "high potential" areas. Finally there are, for the moment, only a few requests which are on hold (thirty) ; the conditions for granting the loans are doubtless not unknown to them.

The mission had the opportunity to visit some of the beneficiaries of the project. Their involvement in the project is remarkable for it is clear, from their enthusiasm, that their existence is based strictly on their profits and the feasibility of their “business”. Their sound understanding of the importance of service to their clients is just as evident, and derives from a good understanding of their commercial interests ; this response to the market is leading them to diversify towards such areas as insemination, the sale of agricultural inputs, animal foodstuffs. Out of the 5 countries visited, it is certainly in Kenya that the process of privatisation as asserted by PARC appeared to the mission to be the most effective in terms of durability and as a service livestock farmers. There seems little doubt that the reasons for this are the purely financial basic conditions for granting assistance, the organisation of the component and the business-mindedness of the recipients.



Sudan

Ethiopia

Jun 1995

Avril 1996

1991

WEST
POCKET

Uganda

1992

Somalia

1988

Avril
1994

1989

Novembre
1994

Avril
1995

Kenya

0 50 100 150

Tanzania

ANNEX 5.6 - ETHIOPIA

1. LIVESTOCK IN THE ECONOMY

Covering an area of almost one million sq. km, less the area of Eritrea which seceded from Ethiopia in 1991, the country currently has a population of over 50 million. With a GNP per capita of only US\$120. Ethiopia is classed amongst the poorest countries in the world. This low GNP is partly a reflection of the countries weak resources. However a large part can be attributed to the long period of poor productivity and bad use of existing resources which characterised the previous socialist regime, as well as to the war being waged in Eritrea and in the North of the country which contributed so much to reducing economic growth.

Agriculture employs 80 % of the population and contributes about 45 % of the GNP. The livestock sector is considered the most important in the continent with some 26 million cattle, 33 million sheep and 20 million goats²², 7 million horses and similar and 1 million camels. It represents a third of the agricultural GNP and about 15 % of the National GNP. 70 % of the livestock are raised in highland mixed agriculture areas, while the remaining 30 % are found in the various grazing systems in the lowlands.

Bovine production is estimated at close to 260,000 tonnes of carcasses and smallstock production at 130,000 tonnes. Draught animals are the principle bovine product, and account for 40 % of the contribution of the bovine herd to the GNP. Meat and manure contribute 20 %, milk 14-15 % and leather 1 %, and the rest is made up of the sale of breeding animals. The total annual production of livestock is valued at more than 800 million ECU, of which draught animals alone contribute 560 million.

Livestock productivity is low, being most often below the known averages for Africa. The herd's productivity is estimated at 8 % per annum for cattle and 18 to 25 % for sheep and goats. The live weight gain of bovines is low, in the order of 20 kilograms per year and mortality is high at about 20 % of the population annually. Cows do not reach maturity until the age of 4 years, only calve every two years and produce only 1.5 to 2 litres of milk over a lactation period of 150 to 180 days. The main constraint to improving productivity is feeding, backed up by the general incidence of disease and parasites.

²² These are well reasoned estimates made during the preparation of a sectarian project in 1992. The official statistics state that at this time there were 28.5 million cattle with 23.2 and 17.4 million sheep and goats. while the statistics of the central statistical services use a figure of 30 million cattle in 1995, not including

The move, since 1992, towards a federalist type of political structure has led to the effective dismantling of the organisation for livestock services. They are now being set up in the regions, but without the decisions having been taken at the federal level on the clear-cut and complete division of responsibilities between the two levels. The current political direction is strongly in the direction of economic liberalism, but putting in place the necessary reforms continues to be held up by the delay in establishing a new legislative framework, the delicacy required to create a new decentralised administration, and the particular sensibilities of the different regions.

2. ANIMAL HEALTH

Animal health, characterised by a broad spectrum of illnesses, remains for Ethiopia one of the principal restrictions on the development of livestock ; rinderpest is still considered endemic in Ethiopia, but has been in strong retrocession in the course of the past few years ; foot and mouth disease is present and there is evidence of strains A,O,C, and SAT2, but the real level is subject to debate. CBPP is common in the highland grazing areas and blackquarter is present in the whole country. Small ruminants are particularly affected by PPR, sheep and goat pox, blue tongue and caprine contagious pleuropneumonia.

The illnesses caused by ecto and endo parasites are of considerable importance for all domestic species : illnesses transmitted by ticks are very frequent ; 150 to 200,000 sq. km of the West of the country are infested by tsetse fly, and trypanosomiasis, sometimes spread mechanically, is present in almost all the territory. Endoparasites (helminthiasis, fascioliasis, ascaridiosis) are present everywhere, as well as coccidiosis and shistosomiasis. Apart from the mortality for which they are directly responsible, these parasitic illnesses contribute strongly to the low productivity of all species.

Mortality, decline in fertility and weight loss caused by morbidity are together the cause of economic losses estimated at between 240 and 400 million ECU per annum, or 30 to 50 % of the total value of the national production.

3. LIVESTOCK SERVICES

The animal health division is one of the six divisions under the Department for the Development of Animal Resources and Fishing within the Ministry of Agriculture. It has lost any operational character since the regionalisation of the field veterinary services, which has been happening since 1993, and now only includes two veterinarians, who have no direct authority over the regional services. Its role is to centralise statistics for the purpose of making and controlling

policy ; however this task is critically dependant on the transmission of reports and information by the regional services. Before the regionalisation, the Ethiopian animal health services had one of the lowest ratios of veterinary personnel, of all grades, to the national herd with 264 veterinary doctors, 569 veterinary assistants and 759 animal health technicians (1992). The regionalisation led to these personnel returning to their home regions and, although the information on their present deployment is not available, it is feared that certain regions are now deprived of the minimal skills necessary to confront the existing pathology threats (particularly Afar and Somali).

Only the activities undertaken by PARC, the National Veterinary Institute, The Central Laboratory for Diagnosis and Investigations and the Faculty of Veterinary Medicine are still organised as part of a centralised structure managed directly by the Ministry of Agriculture.

4. FUNDING THE SERVICES

Like the infrastructure, the personnel and the materials, the budgets of the Department for the Development of Livestock Resources and Fishing have been divided out between the regions, leaving the Ministry with only the funds necessary for the operation of the offices. It is impossible in the present conditions to have any idea, even approximately, of the budgets and resources allocated to the animal health services in the various regions.

The period of regionalisation has seen a rapid retreat by the principal sources of funds for the sector, notably by the World Bank, who are awaiting the stability of the new federal system which the country is adopting. Only certain projects, including the PARC programme which does not seem to be threatened by being dismantled in the short term, continue to operate in the sector.

5. REFORM OF THE SERVICES

Some decisions have however allowed the operations of certain services to grow. In particular, the import and distribution of medicines was liberalised several years ago and is today mostly in the hands of the private sector. Certain regions continue, despite everything, to guarantee supply through the structure of the public services and to ensure distribution (often at cost) via regional staff.

There is, as at today, no official payment for vaccinations or clinical services.

6. PARC

6.1. PARC's activities

At the time of the launch of PARC in 1986, Ethiopia figured amongst the five countries most affected by rinderpest and thus needing a wide ranging emergency campaign. The growth of its activities and the disease situation meant that PARC had to support these 3 successive campaigns in the country :

- The PARC immediate action programme (4,51 million ECU) was planned for a launch in September 1987 but was only able to begin operations in the field in April 1989. The objective was to vaccinate 80 % of the bovine population on a front moving from the borders towards the centre while any subsequent outbreaks would be treated by ring vaccinating. The EU took responsibility for the various costs of the campaign with the exception of the salaries and administrative costs which were spoken for by local contribution. The National Veterinary Institute (NVI) at Debré-Zeit ensured the sero-surveillance, with six teams spread out across the whole country except for the northern area which was still at war :
- PARC Phase 1 (4,3 million ECU) was signed in February 1989 even though the first phase had not yet really started. Its objective was very similar in strengthening control of rinderpest by establishing areas free from the disease and in strengthening the public veterinary and breeding services. It included provision, in particular, for funds for the construction and improvement of breeding centres, the import of forage seed, the purchase of medicines and equipment in order to establish a revolving fund and the training of personnel ;
- PARC Phase II (9 million ECU) of which 6 millions through RIP and 3 millions through NIP, signed in August 1993, followed the policies of phases I and II in financing the continuation of vaccinations in the field, strengthening the serum monitoring and serosurveillance, and technical assistance. Additional activities involved privatisation, forage production, training and communication, and marketing.

6.2. Rinderpest control

Since the effective launch of the PARC project in 1989, about 40 million rinderpest vaccinations have been undertaken in Ethiopia, mostly together with CBPP. Despite the importance of these figures, it has not been possible to run successive campaigns as planned because of security problems. For the same reasons the North was only lightly treated even though good

vaccination coverage was achieved in the South of the country (25 million vaccinations in 1989 and 1990). However the situation was reversed in 1991-92, which ought to have made it possible to complete a campaign of a satisfactory size, albeit over too long a period.

From 1993 a more economic strategy was developed based on tightly defined serosurveillance and targeting the vaccination activities according to an epidemiological classification of the regions in the interior of the country. This strategy tried to identify endemic areas through a combination of investigations on the ground and sampling for a sero-epidemiological surveillance, while maintaining a solid *cordon sanitaire* around the areas. A programme of vaccination appropriate to the area's conditions is then carried out and followed by serological monitoring to control the levels of immunity obtained and confirm the disappearance of the illness from the area concerned. Three zones are still considered endemic today : the Afar Plain, the lowlands in the South West on the frontier with the Sudan and those to the West of Lake Tana. With vaccination having been discontinued in significant parts of the country, PARC has adopted a strategy of vigilance in order to be able to respond to any outbreak of contagious diseases. This requires the federal veterinary services to be responsible for the planning, organisation and supervision of programmes of disease control and eradication. Implicit in this strategy is the need for, among other things, a national system of animal health reporting and effective control of cattle movement based on appropriate legislation. At present, the PARC network is alone in having a central programme management and the expected reforms to the division of responsibility for animal health are still uncertain. Both the materials and the people are in place and the information which has been consolidated and summarised below shows the remarkable work which has been achieved. But, as a result of the reforms only 10 to 20 % of the Woredas are currently sending in reports on the health situation to the centre.

The results obtained in terms of controlling rinderpest in Ethiopia seem to be, in all respects, remarkable, taking into account the very difficult conditions which have prevailed during the whole period of the programme as a result of either security problems in the field or political change. It is important to finalise the objective of eradication in the areas in the interior which are still endemic and to maintain the permanent protection measures at the borders. Moreover the approach which has been used for rinderpest could serve as a model for extending operations more systematically against other livestock illnesses. It would be particularly welcome if the country's political authorities could take this example as a reference point in their forthcoming decisions about the division of powers between the regions and the federal government for the monitoring of animal health and the programmes for countering livestock disease.

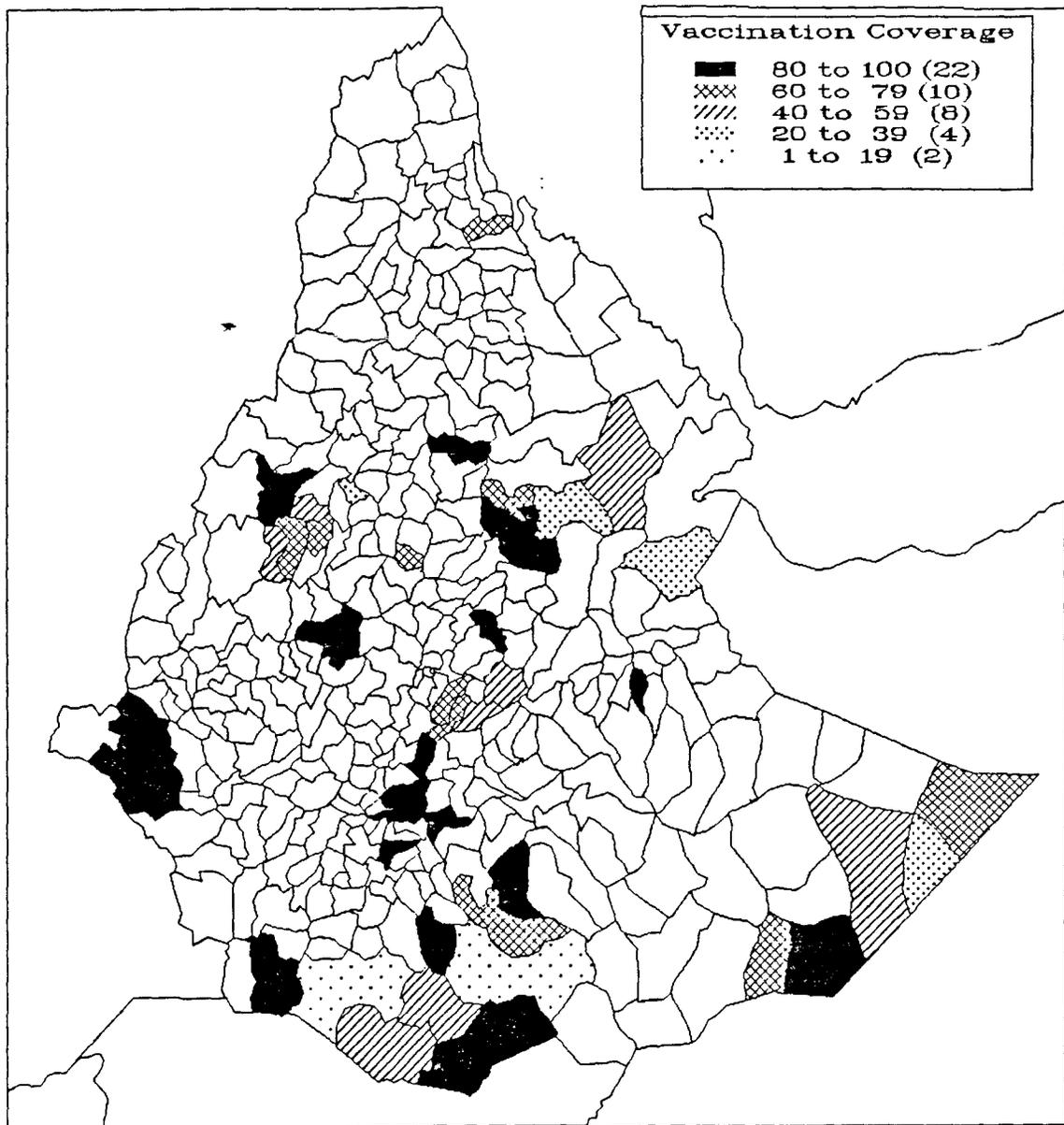
6.3. Other activities

Faced with the gamble about what the future structure of Ethiopia's public health services will look like, the other components of the programme are relatively less important :

- the privatisation component set up a system for funding veterinary personnel (veterinary and animal health auxiliaries) and young graduates of the Faculty, in the form of two financing programmes. The establishment of the necessary environment for the success of these programmes is however still under discussion. This includes the legislation, the withdrawal of the administration from commercial activities and the establishment of health mandates. In view of the current division of abilities and authority, it seems, however, difficult to continue the planned activities by working exclusively at the federal level ;
- the communication component represents a useful and effective tool in the eradication of rinderpest, particularly at the level of the breeders ;
- the forage development activities, whose visible results are limited for the moment to producing seed purchased by the administration's services, needs evaluation of the extent to which the farmer's real use of the seed is as animal feed ;
- the setting up of an information service about the marketing of livestock seems at present to be a long way off from PARC's main pre-occupations and ability to deliver.

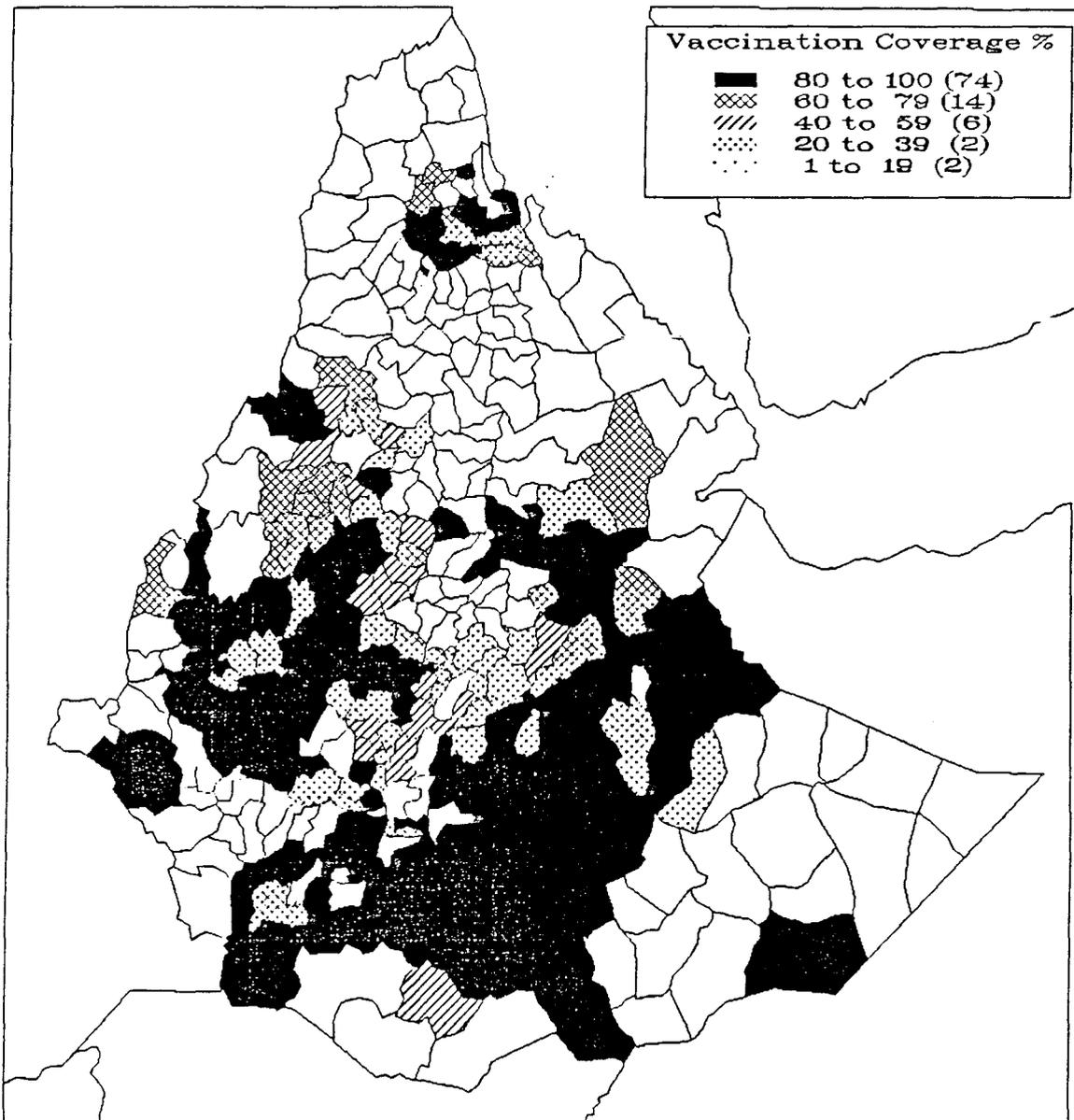
Pan Africa Rinderpest Campaign, Ethiopia

Vaccination Coverage, 1988/89



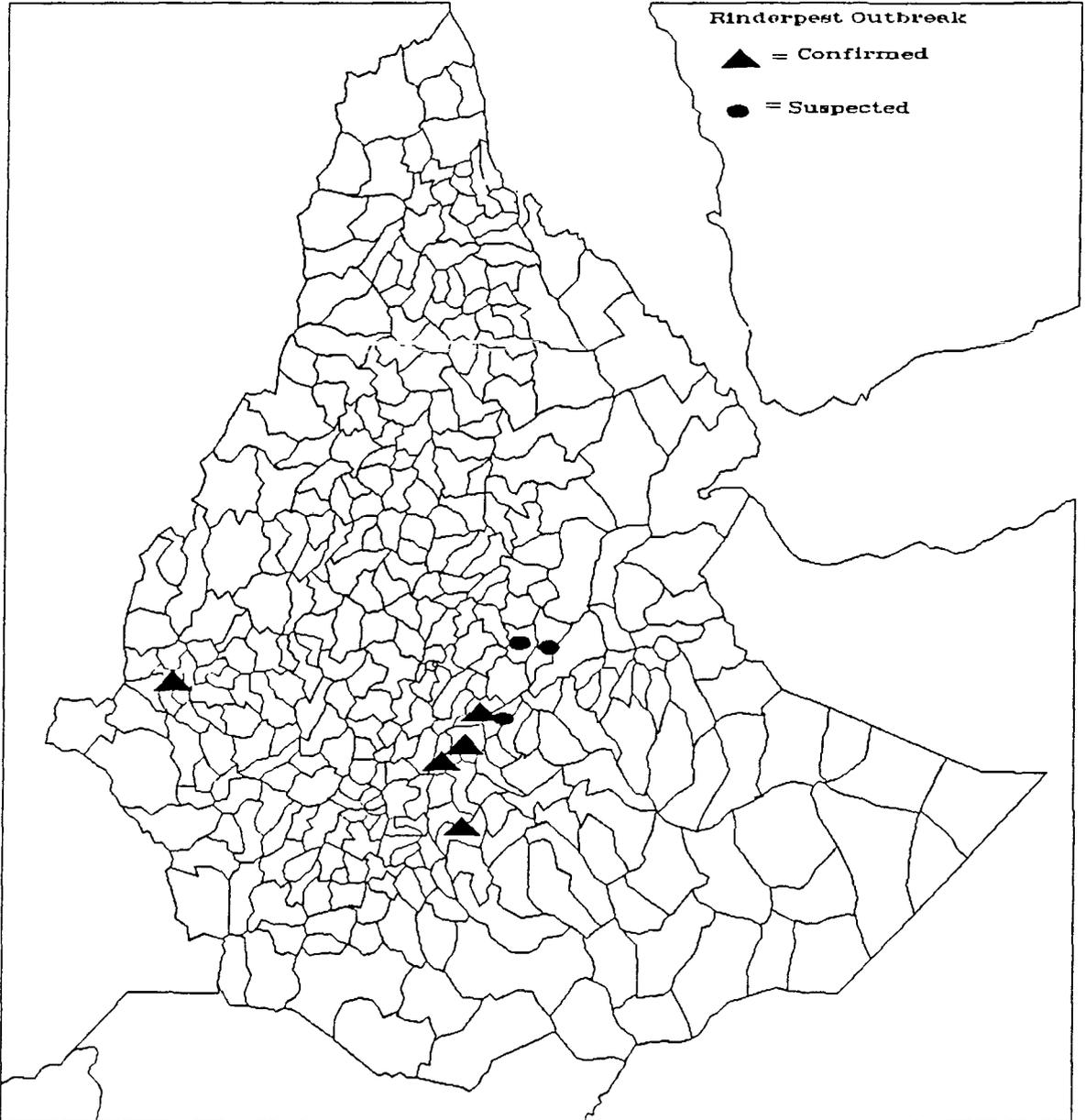
Pan Africa Rinderpest Campaign, Ethiopia

Vaccination Coverage, 1989/90



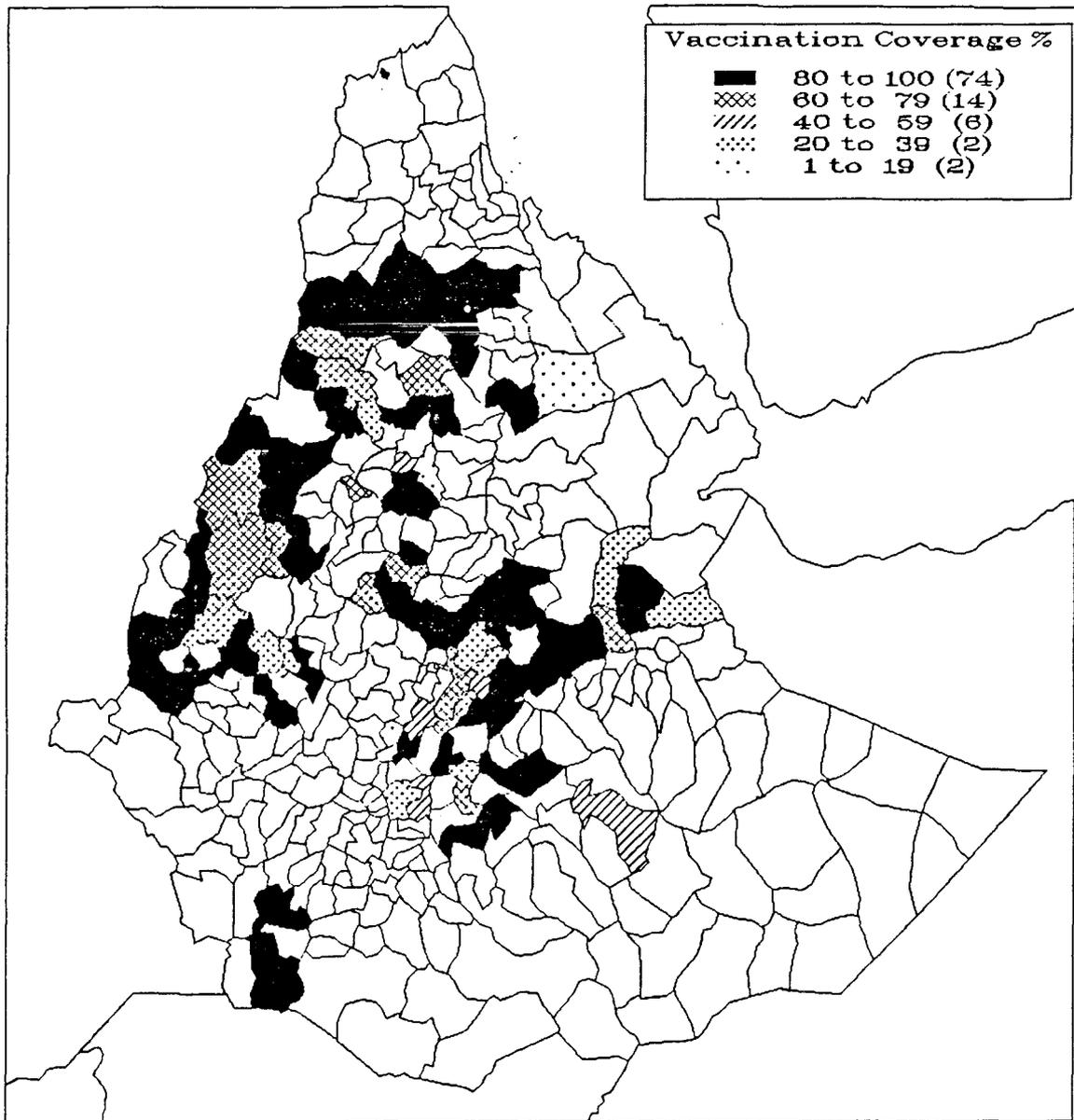
Pan African Rinderpest Campaign, Ethiopia

Rinderpest Outbreaks, 1990/91



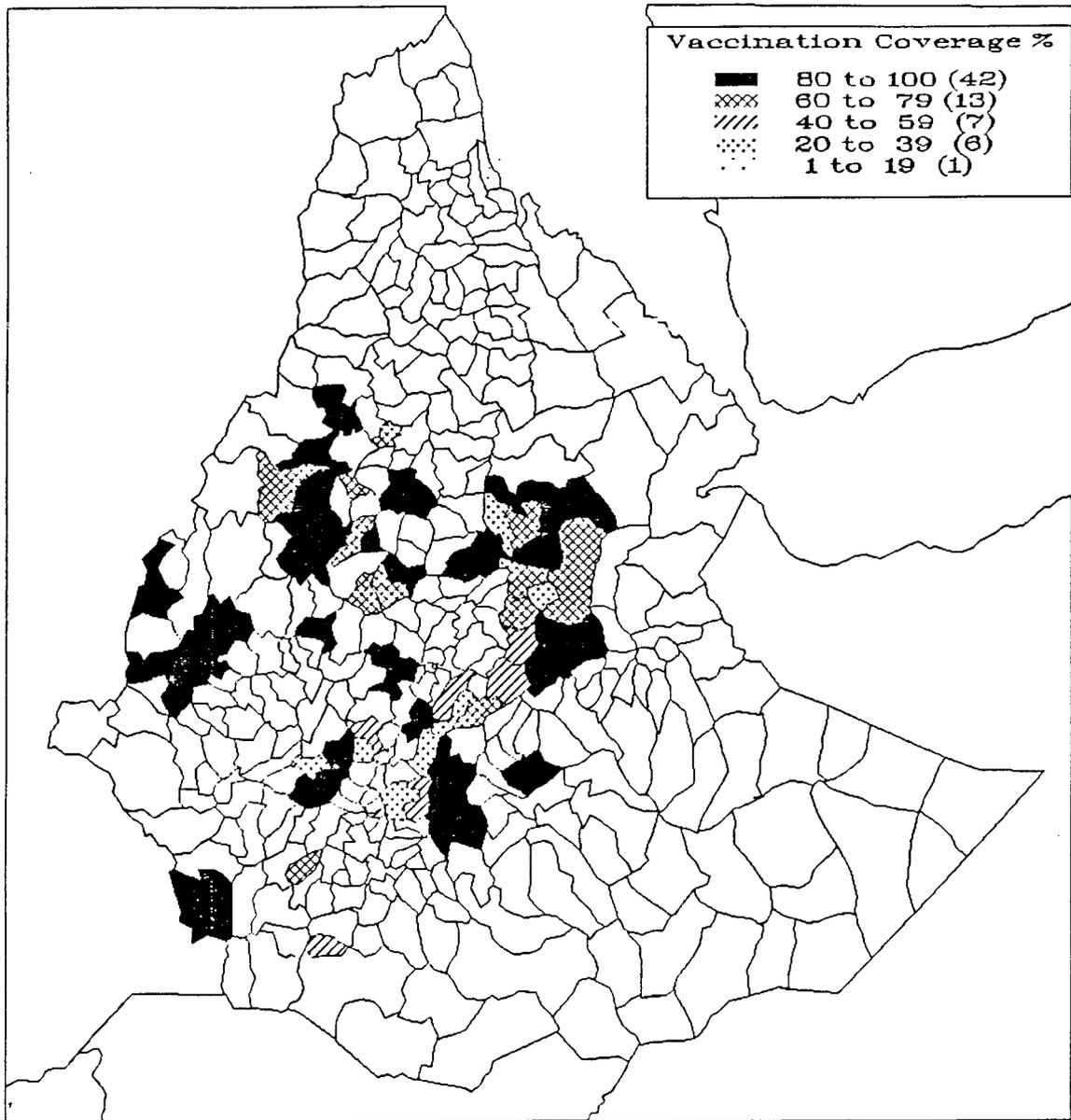
Pan Africa Rinderpest Campaign, Ethiopia

Vaccination Coverage, 1991/92



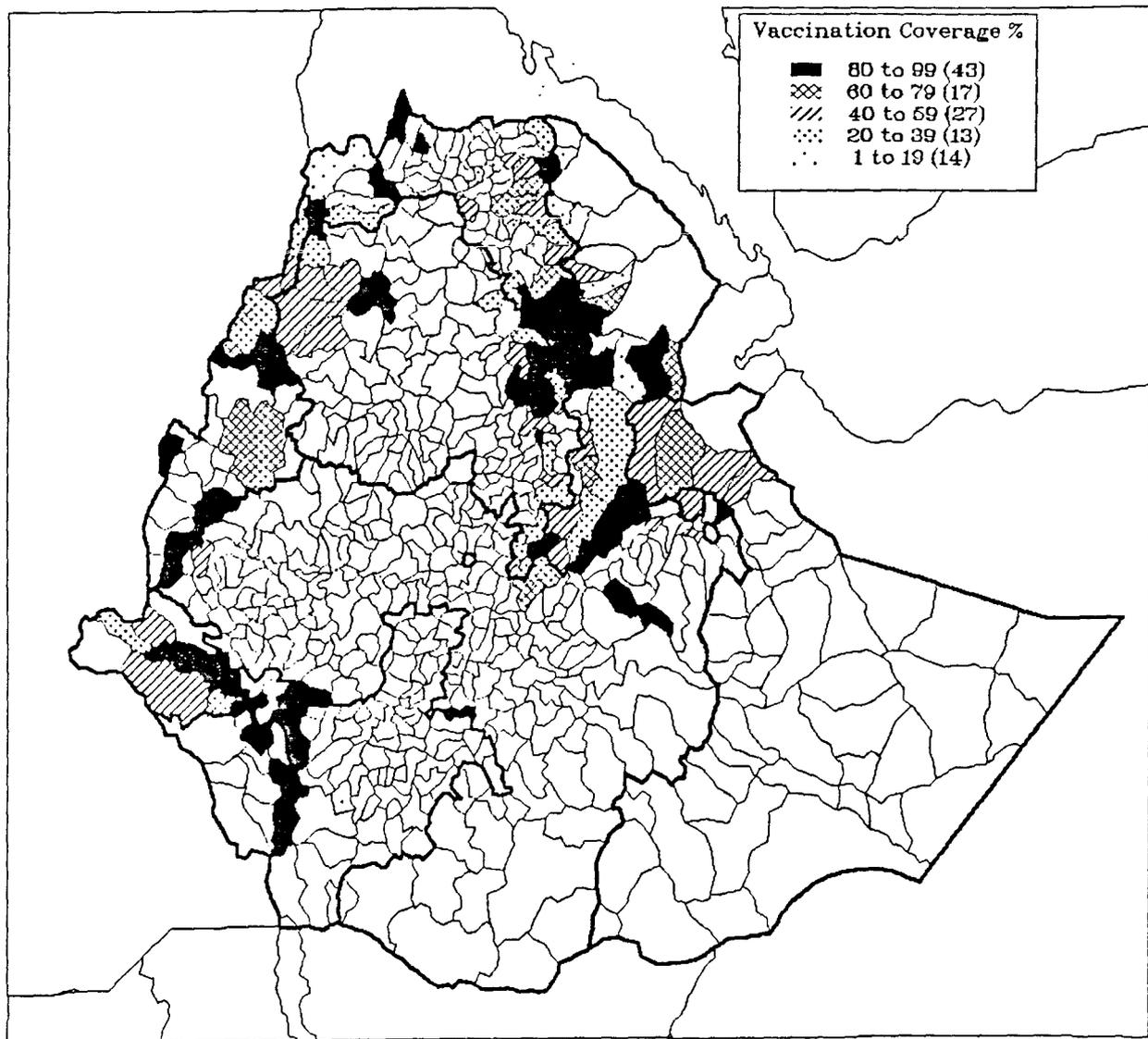
Pan Africa Rinderpest Campaign, Ethiopia

Vaccination Coverage, 1992/93

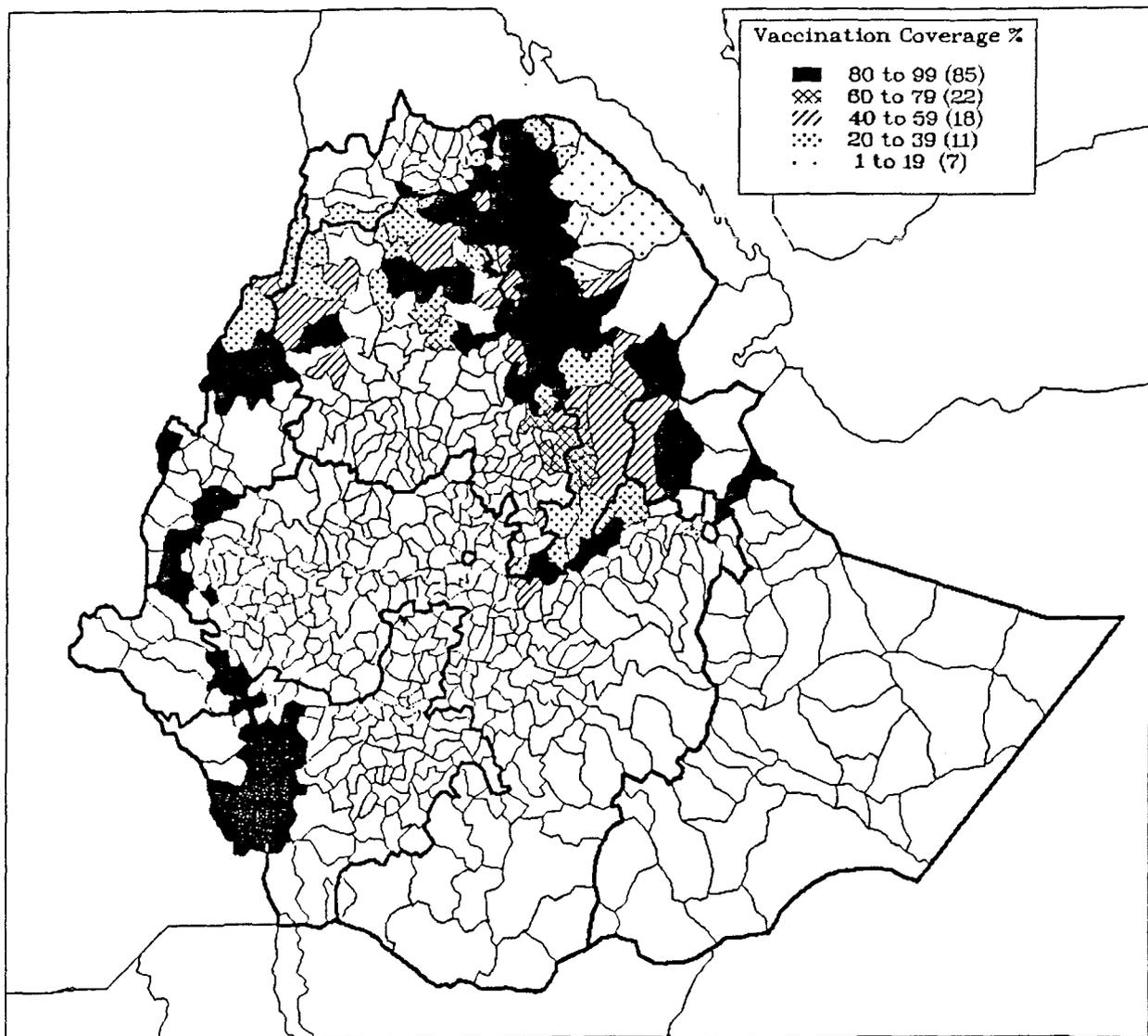


Pan African Rinderpest Campaign, Ethiopia

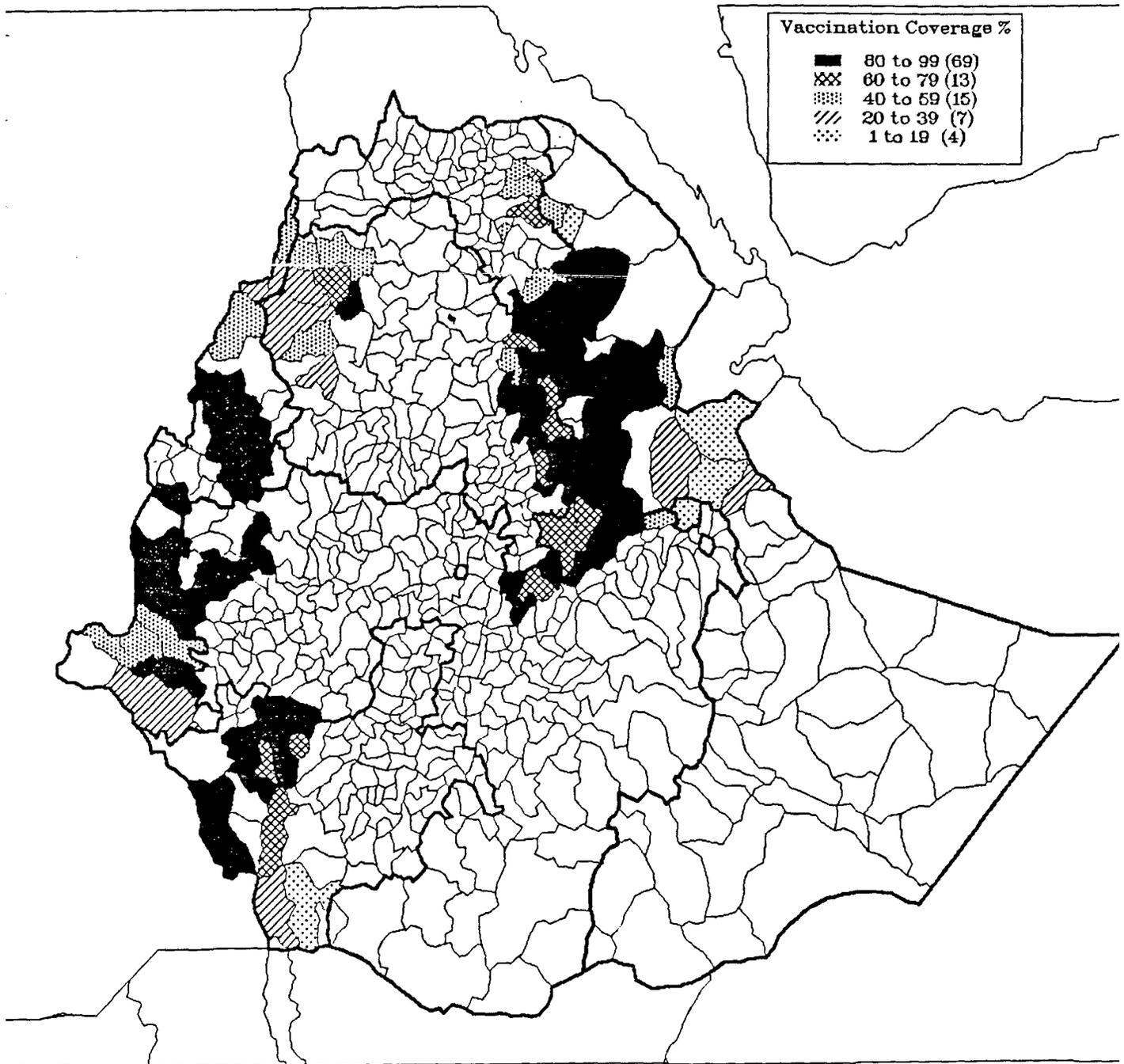
Vaccination Coverage, 1993/94



Pan African Rinderpest Campaign, Ethiopia Vaccination Coverage, 1994/95



Pan African Rinderpest Campaign, Ethiopia
Vaccination Coverage, 1995/96



ANNEX 5.7. - THE COMPONENTS OF PARC

1. NATIONAL COMPONENTS TO DATE

<u>COUNTRY</u>	<u>START</u>	<u>END</u>	<u>SUMS AGREED</u>	
			<u>NIP</u>	<u>RIP</u>
IVORY COAST	1994	1997	1,0	2,0
ETHIOPIA	1994	1998	3,0	6,0
KENYA ²³	1989	1997	---	2,4
MALI	1994	1998	1,2	2,4
GUINEA CONAKRY	1995	1999	---	4,1
CENTRAL AFRICAN Rep.	1995	1999	0,6	1,2
CHAD	1995	1999	1,5	3,1
NIGERIA	1996	2000	1,0	2,0
BURKINA FASO ²⁴	1996	2000	1,3	2,6
MAURITANIA	1996	2000	1,0	2,0
SENEGAL	1996	2000	1,2	2,4
GUINEA BISSAU ²⁵	1995	1998	0,5	0,8
UGANDA ²⁶	1996	2000	1,3	2,6

(agreement sums in million ECU)

2. DETAILS OF NATIONAL COMPONENTS

IVORY COAST

- strengthen veterinary services
- privatisation of veterinary medicine.

²³ A delayed component (privatisation of veterinary medicine : 750.000 ECU) of a national component signed in 1989 is still running.

²⁴ PARC is considered as a fifth component of a Sectorial Programme for Livestock Support, financed through NIP for a supplementary amount of 9.6 million ECU.

²⁵ Old programme, planned initially for the 6th EDF and delayed until the 7th EDF.

²⁶ Old programme, planned initially for the 6th EDF and delayed until the 7th EDF.

2. DETAILS OF THE CURRENT NATIONAL COMPONENTS

IVORY COAST

- ☞ Strengthening of veterinary services.
- ☞ Privatisation of the veterinary medicine.

ETHIOPIA

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Study of livestock marketing.
- ☞ Improvement of pasture land.

KENYA

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.

MALI

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Back up to livestock farmers associations.
- ☞ Study of rangeland.

GUINEA - KONA KRY

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Back up to livestock farmers associations.

CENTRAL AFRICA

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Mutualist activation of livestock farmers.

NIGERIA

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Back up to livestock farmers associations.

BURKINA FASO

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.

MAURITANIA

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Laboratory back up.

SENEGAL

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Livestock farmers associations back up.
- ☞ Study of livestock marketing.

UGANDA

- ☞ Strengthening of veterinary services and of vaccinations (PPCB).
- ☞ Privatisation of the veterinary medicine.
- ☞ Milk cattle rearing back-up.

GUINEA BISSAU

- ☞ Strengthening of veterinary services.
- ☞ Privatisation of the veterinary medicine.

CHAD

- ☞ Strengthening of veterinary services and of vaccinations.
- ☞ Privatisation of the veterinary medicine.
- ☞ Livestock farmers associations back up.

3. CURRENT TECHNICAL ASSISTANCE (TA) TO NATIONAL COMPONENTS

<u>COUNTRY</u>	<u>No. TAs</u>
IVORY COAST	0
ETHIOPIA	3
KENYA	0
MALI ²⁷	1
GUINEA CONAKRY	1
CENTRAL AFRICAN REPUBLIC ²⁸	2
NIGERIA	1
BURKINA FASO	1
MAURITANIA	1
SENEGAL	1
UGANDA	0
GUINEA BISSAU	1
CHAD	2

4. CURRENT COMMITMENTS OR FUNDING AGREEMENTS AT THE CO-ORDINATION UNIT LEVEL

AGREEMENT REFERENCES

<u>OBJECTIVE</u>	<u>RPR 205 and 246</u>	<u>RPR 375</u>
- technical assistance	857	1.064
- operating costs Nairobi	355	482
- operating costs Bamako		318
- economic support (ILRI)		345
- PANVAC	60	800
- epidemiology		1.410
- research		1.947
- support for publicity		2.400
- sundry	152	69

(in million ECU).

²⁷ A technical assistant has been provided for in the requested amendment to the funding agreement.

ANNEX 5.8

IN DEPTH EVALUATION PROPOSED TERMS OF REFERENCE

1. OBJECTIVES OF THE EVALUATION

The objective of the mission shall be to establish the status of rinderpest and the fight against the disease in the zone suspected of being endemic. It will assess the efficiency and the effectiveness of the PARC programme in this respect and produce recommendations for the subsequent follow up of rinderpest in the zone by the project's Co-ordination Unit.

2. THEMES TO BE STUDIED

2.1. Efficiency

The analysis of activities and the results which they lead to should particularly cover :

- The verification, at least by sampling, of the zones effectively covered by the mass vaccinations undertaken in the different countries. Within these zones, the real level of cover of both area and the herd should be estimated. The obstacles and impediments should be identified.
- The organisation of serological follow up will be verified in the same way in order to estimate the validity of controls of on one hand, the effectiveness of the campaigns and, on the other hand, monitoring of the disease.

The evaluation of this element will include analysis of the methods of statistical sampling and handling the physical samples as well as the capacities of the control and diagnostic laboratories.

- The practical organisation of the vaccination and serological surveillance campaigns will also analysed as much from the point of view of resources as that of organisation or methods of intervention and their adaptation to conditions (communications, security, etc.). Particular attention will be given to the organisation of follow up by the PARC national co-ordination when such exists and by the project's overall Co-ordination Unit in all cases.

2.2. Effectiveness

This aspect of the evaluation is to be placed in the context of PARC's overall area of activities ; the consultant will therefore be considering the results as much with respect to the risks run by the other countries as to the countries being analysed.

The analysis of the results obtained with respect to the specific objectives of eradication of the disease will be centred essentially on :

- an estimation of the herd/area which is effectively covered and of the herd/area being effectively monitored. It should be possible to use this estimation to justify the categorisation of a region as certainly or probably endemic.
- the capacity of the relevant authorities to detect outbreaks of the disease.
- the capacity to react to any outbreaks detected at a local level.
- the organisation of cross-border co-operation between the countries which are directly concerned and their neighbours who risk contamination is possible.

2.3. Viability

The consultant will analyse in relation to viability :

- the effective or expected accompanying measures which countries have taken or should take, from the point of view of achieving eradication while taking into account the possibilities of actual application in the field.
- the attitude of mind of the different countries in respect of the PARC approach and the specific methods which PARC would eventually adopt in these particular cases in order to reach its objective of eradication.
- the technological viability in terms of the level of technical management by the national services.
- the financial viability in terms of the capacity of the services to ensure preventive vaccinations, their control and the serological surveillance of the disease - both with the support of PARC and afterwards.

2.4. Recommendations

Apart from specific technical recommendations for each country, the consultant will produce opinions and suggestions on the organisation of the follow up to operations at the level of national co-ordination, such as the Co-ordination Unit at Nairobi.

The consultant will similarly make recommendations about the strategy for PARC's approach in the region in order to reach its objective of eradication.

Still focusing on this objective the consultant will estimate the resources required for the future national components and will recommend approach strategies for the Co-ordination Unit to the "dialogue method" which it uses.

3. ORGANISATION OF THE STUDY

The study will be above all based on an assessment on the ground of what is happening in practice. This implies therefore a prior agreement and collaboration by the national services, including those in the countries or regions where PARC and the EU are not currently financing vaccination campaigns (Kenya, Somalia, Sudan). IBAR/OAU should obtain these agreements. The regions and countries which the mission should examine are the following (Note that this list of regions is not exhaustive and could be supplemented by the consultant in collaboration with the Co-ordination Unit) :

- ETHIOPIA : Afar Plain, Gambela, South West plain.
- KENYA : Tana River, Wajir and Mandera, Turkana.
- SOMALIA : South West, Wadi Jubba.
- SUDAN : the so called "buffer" or "intermediate" zone, notably in the eastern part, the towns controlled by the Khartoum services (Juba) and the areas in the Jonglei where the NGOs are active.
- UGANDA : the North-West part, to the west of the Albert Nile ; Karamoja (where possible).

The epidemiological unit should be associated with these activities, without necessarily participating in all ground work. Joint preparation should be, nonetheless, the minimum ; this unit, as a result of the recommendations of the mission will almost certainly be involved in conducting subsequent sampling campaigns.

Informations, in as much detail as possible, about results and resources should be assembled beforehand through the administrative services of each country.

The situation concerning the level of cover and control, in terms of the results of campaigns, should be set out with the help of the Co-ordination Unit and, as necessary, the central or regional administration of the countries which are most at risk : Tanzania, North East Zaire, Central Africa, Chad. The programme should include a contingency fund for a possible visit to Tanzania.

4. PARTICULAR SKILLS REQUIRED

The consultant will have reporting to him 2 veterinary epidemiologists who have a good knowledge of the disease, laboratory and sampling methods and vaccination campaigns. Previous experience of these regions is highly desirable.

5. TIMESCALE

The team should split up in order to divide the work. There is no doubt that it would be sensible for the majority of field visits to be organised so as to depart from Nairobi, using small charter aircraft.

The time needed is estimated at :

- Ethiopia : 1.5 weeks
- Kenya : 1.5 weeks
- Somalia : 1 week
- Sudan : 2.5 weeks
- Uganda : 1 week
- Nairobi : 1 week.

This represents 2 man-months of fieldwork, to which should be added 1.5 manmonths of report preparation.