

## **PROCORDEL: a regional research network for livestock development in West Africa.**

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### **Introduction**

Research is at the forefront of meeting the 3rd millennium's challenges to feed the rapidly increasing population in SSA. To date, West African economies largely depend on livestock and crop-based agriculture. Sub-regional Livestock Research Centres, such as ITC in The Gambia and CIRDES in Burkina Faso, are devoted to supporting the livestock-based agricultural sectors' efforts to increase productivity. The EU funded *Programme Concerté recherche-développement sur l'élevage en Afrique de l'Ouest (PROCORDEL)* is one of the projects implemented jointly by the two Centres in support of their mandates.

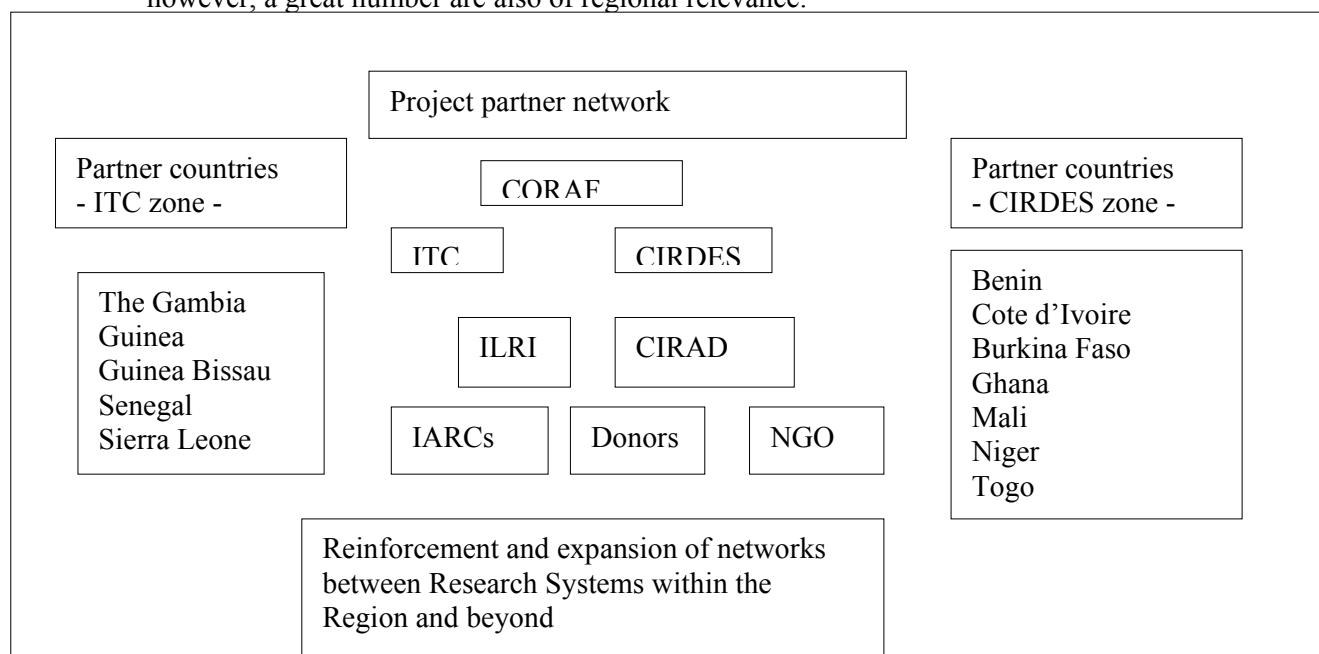
### **Project objectives**

- Provide livestock owners with improved and/or new technologies to increase livestock production and hence impact positively on rural livelihoods and food security

### **Framework**

The project is being implemented over a period of 4 years (2000 – 2004) in 13 West African countries and is coordinated by ITC and CIRDES with the support of ILRI; IARCs and CIRAD.

The R&D agenda was established through a consultative process with the NARS of the countries involved, which are the implementing agents of the work programmes. The activities reflect individual countries' national R&D priorities for livestock development, however, a great number are also of regional relevance.

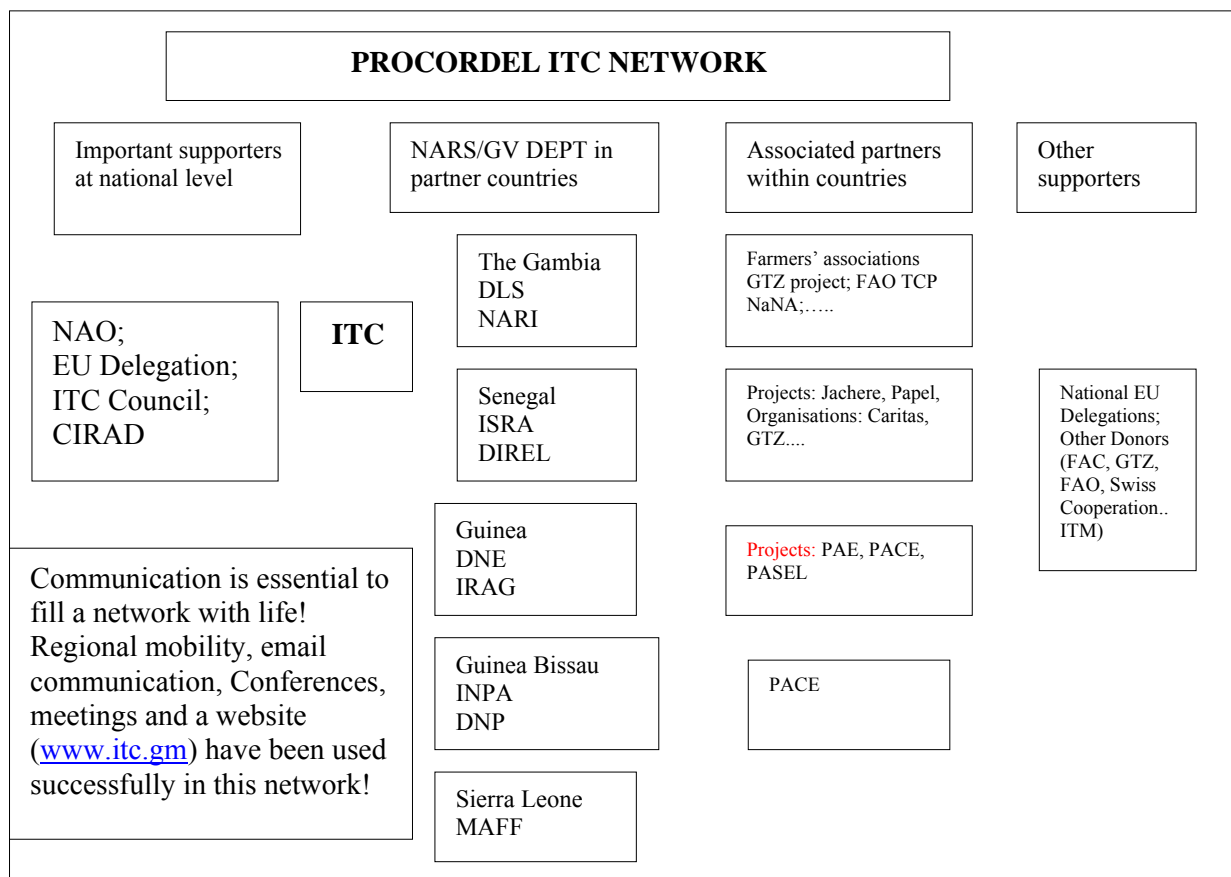


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This poster describes the overall framework and gives more detailed information on the part of the project implemented in the ITC zone.

## Methods

The project has taken a systems approach that addresses the predominant extensive low-input systems, but also studies the evolving semi-intensive market-oriented systems. Within systems, the principal fields of research are *Animal Health* (diagnostics, epidemiology, disease risk assessment, milk and meat hygiene) and *Animal Production* (breeding, feeding, reproduction). Bio-technical research is accompanied by *socio-economic research* to put it to a macro- and micro-economic context. *Capacity building* at all levels is given great emphasis.



## Some selected results

### *Animal health*

- Trypanosomosis is one of the key health constraints in the region. To update previous, partly outdated information, longitudinal studies were conducted in The Gambia and Guinea on the prevailing risk of trypanosomosis for livestock. Preliminary results indicate that tsetse densities have declined during the past years and so have prevalence rates. However, for susceptible species, like equines, the level of risk is still high in classified areas where trypanotolerant breeds, like the N'Dama, are best suited. Other areas have been confirmed as low risk zones where introduction of crossbreds can be recommended.

- Tick damage and occurrence of tick-borne diseases have been investigated in The Gambia and Guinea. A strategic tick-control scheme has been recommended for disease risk reduction. Tick-borne infections (*Anaplasma*, *Babesia*) have been demonstrated as the predominant aetiology of the Woula disease syndrome in Guinea. High mortality reported in small ruminants, was shown to be due to *Ehrlichia rumiantium* (Cowdriosis) in The Gambia.

#### ***Animal production***

- Productivity of crossbred cattle introduced in Senegal (since 1994), The Gambia (since 2000) and Guinea (since 2001) has been studied in relation to disease risk, production systems and management factors. Although milk production is higher than in local breeds, a wide range of limiting factors have been identified and analysed in the context of each country. Recommendations for improved management, feeding and breeding are being developed.
- Utilisation of established technologies, such as stabulation (étable fumière) and improved animal draught power, is particularly useful in post-war situations as in Guinea Bissau and Sierra Leone where infrastructure, supplies and public service support are poor.

#### ***Socio-economics***

- The characterisation of the formal (Senegal) and informal (Senegal, The Gambia, Guinea, Guinea Bissau) dairy sector has added valuable information for the development of strategies for the exploitation of increased productivity, e.g. through introduction of crossbred dairy cattle. Constraints and potentials to improved local milk production, marketing and consumption were identified. The regional approach that was used allows comparing the dairy sub-sector between the selected countries. The analysis of smallholders' potential to adopt dairy technologies showed that they behave differently depending on their resource endowment.
- Ex-ante and ex-post evaluation of farmers' attitudes towards a number of research-introduced interventions (disease control, dissemination of improved local breeds) have led to the identification of the factors that influence technologies uptake and the cost-effectiveness of these interventions.
- Studies on livestock development policies were geared to provide first-hand information to the policy makers that would help design a suitable macro-economic framework to boost the performance of livestock sub-sector, particularly meat and milk production.

#### ***Capacity building***

Particular attention was paid to human resource development and capacity building by responding to identify training needs at various levels. The building of networks in HRD was a major tool for the transfer of research results and integrated technologies to the beneficiaries. This has been primarily achieved by providing targeted training on technical, scientific and managerial topic to researchers, technicians, extension workers, farmers and project managers. Harmonisation of research approaches, data collection and analysis has greatly facilitated interpretability of results. A *Regional Mobility Scheme* enhanced the dialogue between professionals and partner institutions. The *Train the Trainer* approach increased the multiplier effects by improving the capacity of local staff to implement essential training at farmers' level.

<b>Number of person trained</b>	2001	2002	2003 (to July)
Professional level	85	90	35
Technical level	47	103	36
Farmers, milk collectors, vendors	-	129	352
<b>Total</b>	132	322	423

## Conclusion

The project links research institutions, their Government partners and other stakeholders in the livestock sector of 13 West African countries into an operative network, which is more tightly knit within the sub-networks of each Centre. This network, though previously in existence, received a considerable boost from PROCORDEL and links have now reached a project-independent level. It is therefore anticipated that the network will be sustainable in the effort to support livestock development beyond the duration of the project.

During the final phase of the project, great efforts are being made to reach out to a wide public of scientists, Government personnel, including extension services, beneficiaries and stakeholders. **National Conferences** will be organised in most project countries to present research outputs, resulting technology packages and extension manuals in order to facilitate uptake, dissemination and utilisation.

## Acknowledgements

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## Acronyms

CIRAD	Centre de Coopération International en Recherche Agronomique pour le Développement
DIREL	Direction d'Élevage, Senegal
DLS	Department of Livestock Services, The Gambia
DNE	Direction National d'Élevage
DNP	Direccao Geral da Pecuaria, Guinea Bissau
FAC	Cooperation Francaise
FAO	Food and Agriculture Organization of the United Nations
GTZ	German Technical Cooperation (Gesellschaft für Technische Zusammenarbeit)
GV Dept	Government Departments
IARC	International Agricultural Research Centres
ILRI	International Livestock Research Institute, Kenya
INPA	Instituto Nacional Pecuaria et Agricultura, Guinea Bissau
IRAG	Institut de Recherche Agronomique, Guinea
ISRA	Institut Senegalais de Recherches Agricoles, Senegal
ITC	International Trypanotolerance Centre
ITM	Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium
MAFF	Ministry of Agriculture, Forestry and Food Security, Sierra Leone
NaNA	National Nutrition Agency, The Gambia
NAO	National Authorising Officer
NARI	National Agriculture Research Institute, The Gambia
NARS	National Agriculture Research Systems
PACE	Pan African Control of Epizootics
PAE	Programme d'Appui d'Élevage, Guinea